

Rabies

West Timor Risk Communication and Community Engagement (RCCE) Strategy

2024 - 2025

Introduction

Rabies, a preventable viral disease with severe neurological consequences and 100% case fatality rate in humans once clinical symptoms appear, has become a pressing public health concern in East Nusa Tenggara, particularly following an incursion onto the previously rabies-free Timor Island. Data from May 2023 until July 2024 highlight a recent disturbing surge in rabies cases in West Timor, including 34 human deaths, with deaths now confirmed in all six districts of West Timor. Another 27 fatalities have been confirmed in Flores Island and Lembata during the same period. The escalating number of cases indicates an urgent need for a targeted intervention to mitigate the spread of rabies and address the burgeoning public health crisis.

The rise in rabies incidence can be attributed to various factors, including limited awareness, inadequate access to appropriate healthcare services, lack of appropriate control and vaccination of dogs and gaps in community engagement. The lack of understanding about the transmission, prevention and treatment of rabies has contributed to its rapid transmission within these communities. Immediate and comprehensive measures are imperative to stem the tide of rabies-related mortality and protect the health and well-being of the local population.

Following the initial case in South Central Timor (TTS) District in May 2023, rabies is now endemic across all districts of West Timor. West Timor consists of six districts: Kupang City and District, TTS, North Central Timor (TTU), Malaka and Belu. There is a wealth of geographical, socio-economic and cultural diversity across these districts, emphasizing the necessity for an individualised response suited to the diverse sociocultural and geographical challenges. To address these challenges, a targeted risk communication related capacity building campaign and the development of Information, Education, and Communication (IEC) materials are essential components of an integrated rabies control and prevention strategy. As such, a strategic and culturally sensitive approach is essential to effectively communicate risk factors, prevention methods and treatment options to the communities at the epicentre of this growing public health crisis.

This approach aims not only to curb the immediate impact of rabies. It will also foster lasting behavioural change, community engagement and awareness to prevent future cases.

Problem Statement

Lack of understanding of rabies, the critical urgency of preventing further human deaths by ensuring people receive prompt post-bite prophylaxis and the importance of dog control and mass dog vaccination to control and subsequently eradicate rabies from West Timor.

Overarching Goals

Risk communications should focus on achieving two goals:

- Goal 1.** Immediate increase in community awareness of the risks of rabies and the need to promptly seek post bite treatment if bitten or otherwise exposed.
- Goal 2.** Immediate improvement in the control of dogs and support for mass dog vaccination

The aim of rabies control in West Timor is to urgently prevent any further human deaths and to eradicate rabies from West Timor by the end of 2028. These aims will only be achieved with effective risk communications to support a robust and ongoing control program.

Objectives

Delivery of a rabies risk communication and community engagement (RCCE) program that uses evidence informed initiatives to implement a strategy to promote the behavioural changes required to protect human health and control the disease in dogs.

This will be achieved by identifying target populations, the messages/information and frequency required and the channels for delivery.

In the first instance the priority target population is the community and the protection of human health. Increased awareness and behaviour change in communities will be achieved as follows:

- Communities and individuals understand the risk associated with rabies from dog/animal bites, irrespective of their severity, size or location on the body.
- The imperative of appropriate wound care and the need to seek immediate post-bite treatment is well understood with the motivation to ensure their self-preservation and safeguarding of their families.
- The significance of improving the control and vaccination of their dogs, recognizing the benefits of protecting both their animals and their families.
- Having confidence in and access to appropriately informed, skilled and motivated service providers capable of delivering the necessary guidance and support, thereby promoting enhanced and sustained behavioural practices.

Principles

The RCCE Strategy must address the key elements of reducing the rabies threat in West Timor, and this, as above, requires: (1) immediate reduction in risk from rabies to human health; and (2) progressive control/eradication of rabies from dogs. To achieve this the following approach will be required:

- **Effective targeting** of a broad array of stakeholders including all communities, community leaders, NGOs/CSOs/church groups/etc, service providers and political leaders with the objective of increasing their awareness of the risks and the means of mitigating the risks and gaining their commitment to the task of reducing the risk of rabies.
- **Effective messaging** of the target groups to promote awareness and deliver behaviour change by developing key information, education and communication (IEC) messages that are provided to all stakeholders, noting that some messages will be universal across all stakeholders, whereas some groups will require more specific information.

- **Multiple means of Risk Communication delivery** will be utilised to avoid the limitations of single channel approaches that are less effective for most stakeholder groups. Mixed-media, and a range of socialisation approaches will be required, tailored to the communication preferences of each group of stakeholders.
- **GEDSI considerations** for each stakeholder group will need to be taken into consideration, with a particular focus on identifying the barriers experienced by people with disabilities, women, socially marginalised groups and the elderly. Activities will aim to do no harm and address risks to gender equality. The impact of the IEC will be evaluated, and the approach revised according to GEDSI considerations identified within each activity and location.
- **Adaptive program** will be required to adjust to changing situations and to consolidate evolving behaviour change and commitment, noting that risks from rabies and the successful eradication of rabies from West Timor will take multiple years.
- **Monitoring and evaluation of the RCCE program** needs to be well defined and ongoing, to follow initial implementation of activities and ongoing review/validation over time, with the caveat that the urgency of the situation meant that it was not possible to undertake a full baseline assessment before implementing multiple activities.

Key Audiences

Targets of Change:

- Children aged 5-18 years, primarily elementary students
- Parents
- Older people, aged 60 years and above, and People with Disability (PWD)
- Dog owners

Direct Influencers:

- Village apparatus, consisting of health cadres, *Kepala Desa* and village staff
- School teachers, primarily elementary school teachers
- Community Based Organisations (CBOs), Faith Based Organisations (FBOs) and community/religious leaders
- Community health workers, including health cadres, nurses, midwives, and health promotion officers
- Field officers of animal health and veterinary services
- Public figures, and/or influencers on social media
- Members of KASIRA, including: *babinsa/babinkamtibmas*¹, teachers, religious leaders, health cadres, and village staff

Gate Keepers/Enablers:

- Government, including Offices of Health, Animal Husbandry, Education and Culture, Social Affairs, Bappelitbangda and of Communications & Information

¹ Members of the Indonesian military (TNI) and Indonesia National Police (POLRI) who are assigned to villages to support development efforts, maintain security and foster cooperation between the military/police and local communities.

- Disaster Management Agency at both provincial and district levels
- Development partners
- Non-Government Organisations (NGOs), Civil Society Organisations (CSOs)
- Local media and journalists

Social and Behavioural Change in RCCE

An integral aspect of RCCE lies in its focus on the audience social and behavioural factors. Human behaviour is complex, and numerous factors can affect an individual's decision to adopt or reject a promoted behaviour. Effective RCCE strategies involve segmenting and targeting diverse audiences or spheres of influence.

Identifying the primary target audiences for rabies RCCE interventions was based on preliminary discussions and supplementary data collection of the Gender Equality, Disability and Social Inclusion (GEDSI) Profile of NTT conducted by AIHSP, as part of the development of the NTT provincial profile. Part of this was tailored in response to the rabies outbreak in South Central Timor (Timor Tengah Selatan: TTS).

Study findings suggest that dogs play a significant role in the lives of people in NTT, serving as companions, guards and hunters. While most pet dogs roam freely, certain breeds are tethered due to theft concerns. Though no official data on dog numbers is available, it is estimated that there are on average 250 dogs in each village/*kelurahan* in the TTS district, although recent limited data from local government indicates that some of the villages have had more than 900 dogs vaccinated and some villages reported low numbers being vaccinated as some are smaller with fewer dogs, and some have low rates of vaccination coverage due to operational limitations. Household dog ownership correlates with economic status; households with greater economic resources own more dogs.

The community's priority following dog bites is on the victim rather than the animal, contributing to underreporting of dog-related incidents. In many cases, this is due to dogs being eliminated without being tested. Traditional wound care practices, such as using ground coffee or *Sukar* leaves, are common, and medical attention is often overlooked, difficult to access, or feared, mirroring national trends². Dog movements, dog trade and eating dog meat are additional risk factors. These findings underscore the complex dynamics shaping dog ownership and rabies management in NTT.

² [Rehman, S., Rantam, F. A., Rehman, A., Effendi, M. H., & Shehzad, A. \(2021\). Knowledge, attitudes, and practices toward rabies in three provinces of Indonesia. *Veterinary world*, 14\(9\), 2518–2526. <https://doi.org/10.14202/vetworld.2021.2518-2526>](https://doi.org/10.14202/vetworld.2021.2518-2526)

Priority Risks and Behaviour Change

A summary of priority risks and behaviour change required as identified and derived from the field study is as follows:

Table 1. Risks and Behaviour Change Priority

Risk Imposed	Priority Risks	Behaviour Change Required
Risk of rabies in people	Community members not seeking appropriate medical care	Community members seek prompt medical attention for all dog bites regardless of size or location on the body
	Community members not undertaking adequate wound care	Community members stop using herbal remedies and use running water and soap to clean the wound
	Vulnerable community members (those who are exposed regularly to dogs) are unvaccinated	Community members that are particularly vulnerable or who handle dogs regularly are vaccinated against rabies
	Stock-outs of VAR/SAR at local health facilities	Community members to be persistent in seeking medical attention, either on another day or at another facility
Risk to people from rabies in dogs	Young people and children playing with dogs	Young people and children practice caution when approaching dogs, and avoid any dogs showing aggression
	People feeding/playing with/handling other peoples' dogs without caution	Community members don't feed/play with or handle unknown dogs – especially those which exhibit rabies symptoms
	Dog owners not vaccinating dogs	Community members vaccinate all dogs that they own (and eventually monitor all dogs in their communities and ensure their vaccination)
	Dog owner not reporting dog illness/deaths	Community members report dog illness/deaths to relevant authorities

Crafting Risk Communication

Messages, Channels and Preferred Means of Communication

Messaging has been tailored to promote specific behaviours after careful consideration of the local context's nuances, encompassing barriers, enablers, and available resources that impact individuals' adoption and sustaining of these behaviours. Additionally, the feasibility of behaviour adoption and its alignment with desired outcomes have been factored in. The ensuing priority messages are outlined below.

Table 2. Mapping of Messages, Channels & Preferred Means

Key Audiences	Message Objective(s)	Preferred means
Target of Change		
Children (aged 5-18 years)	1, 4	a, c, d, e, i
Parents	1, 4	a, c, d, e, i
People of older aged ≥60 years, PwD, and women	1, 2, 4	a, c, d, e, i
Dog owners	1, 2, 4	a, c, d, e, i
Direct Influencers		
Village heads, and apparatus	1, 2, 3, 4	a, b, c, d, e, g
School teachers, primarily elementary school teachers	1, 2, 3, 4	a, b, c, d, e, g
CBOs, FBOs, community/religious leaders	1, 2, 3, 4	a, b, c, d, e, g
Community/healthcare workers	1, 2, 3, 4, 5	a, b, c, f, g
Field officer of Animal Health and veterinary	1, 2, 3, 4, 5	a, b, c, f, g
Members of KASIRA	1, 2, 3, 4, 5	a, b, c, f, g
Gatekeepers/Enablers		
Government/Decision Makers	1, 4, 6, 7	a, c, g, h
Development partners	1, 4, 6, 7	a, c, g, h
NGOs, CSOs	1, 2, 3, 4	a, c, i
Local media/journalists	1, 2, 4, 6, 7	a, c, g, h

Message Objectives

1. Improved awareness, knowledge and basic understanding of rabies risk, risk mitigation and commitment to control.
2. Specific risk management information for disadvantaged GEDSI groups.
3. Enhanced knowledge and understanding of rabies risk, risk mitigation.
4. Counteract false and misleading information (hoaxes) regarding rabies control.
5. Technical information on rabies situation (case reporting, post bite treatments, vaccination, epidemiology, etc.)
6. Media information on rabies, progress in its control and challenges faced.
7. Economics of rabies control.

Channels and Preferred means

- a. Leaflets, banners, posters, flipcharts
- b. Technical guidelines, SOPs
- c. Social media, videos
- d. TV, radio
- e. Focus group discussions
- f. Situation reports – technical
- g. Situation reports – political/media
- h. Media briefings
- i. Messages through religious/community leaders

Note: Some forms of mass communication, such as leaflets, banners, posters, and certain social media messaging, may require additional reinforcement through interpersonal communication by trained communication champions such as service providers, schoolteachers, and community and religious leaders.

Messages to communicate risks should encapsulate essential information that the intervention aims to convey to a specific audience to prompt behavioural changes. The main messages should maintain coherence, repetition and alignment across various channels, methods and materials, reinforcing each other, including the ones provided by pertinent stakeholders, such as healthcare providers and animal health officers on the ground. The crafting of messages and choice of channels needs to be adaptive, responding to the evolving situation and the needs of specific communities.

Below are some examples of constructing message “buildings” that cover the targets of change and direct influencers, derived from the current situation and local context identified in the previous section (see Risks and Behaviour Change Priority.)

Figure 1. Message Building: Risk of Rabies in People

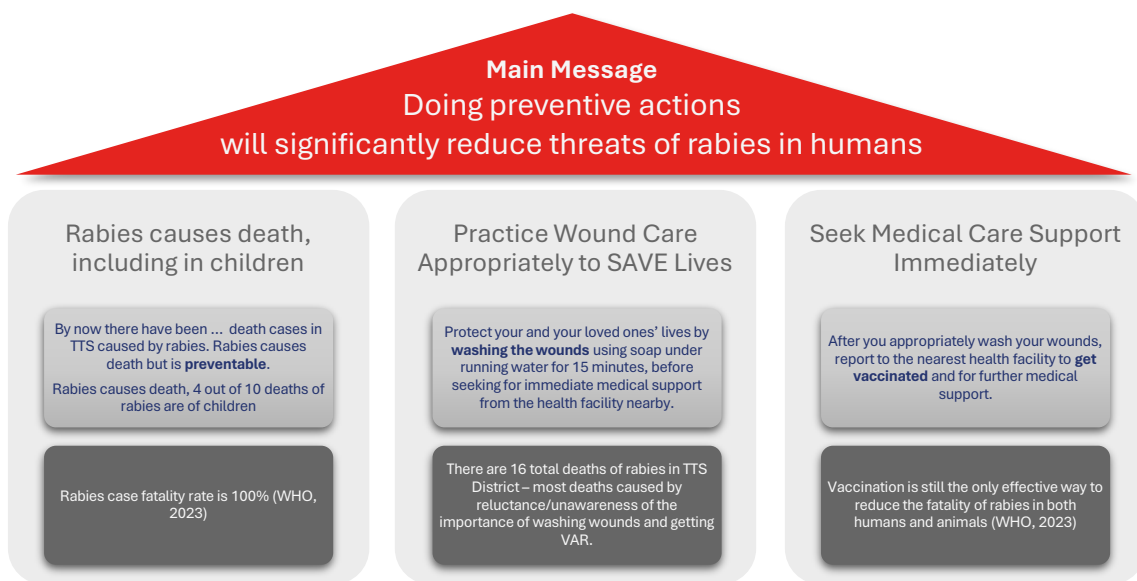
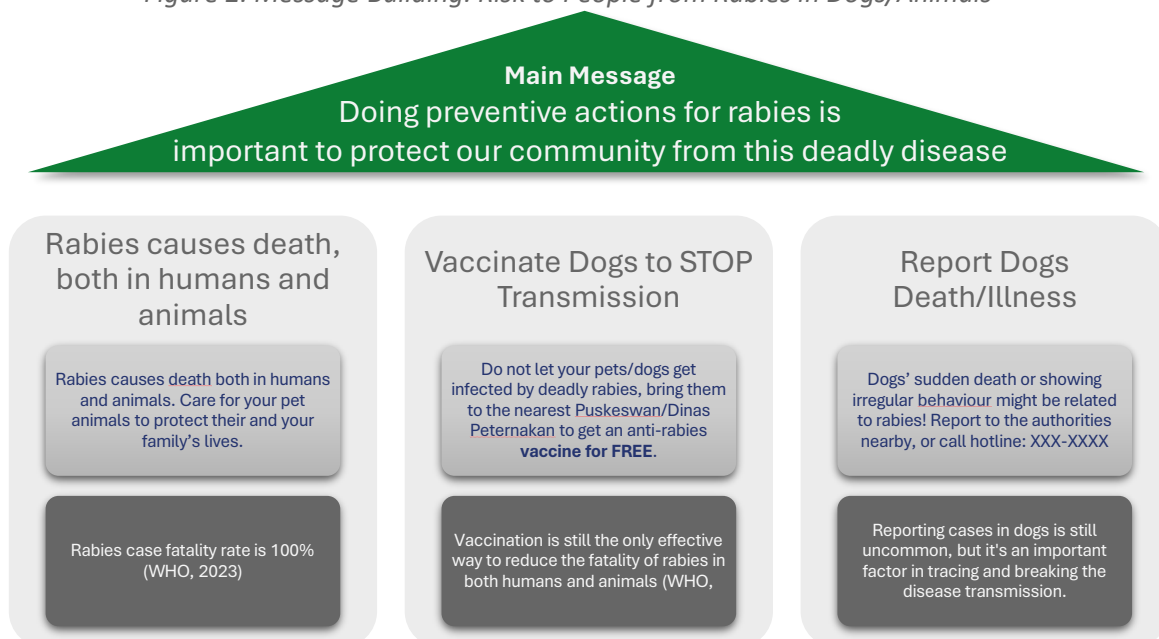


Figure 2. Message Building: Risk to People from Rabies in Dogs/Animals



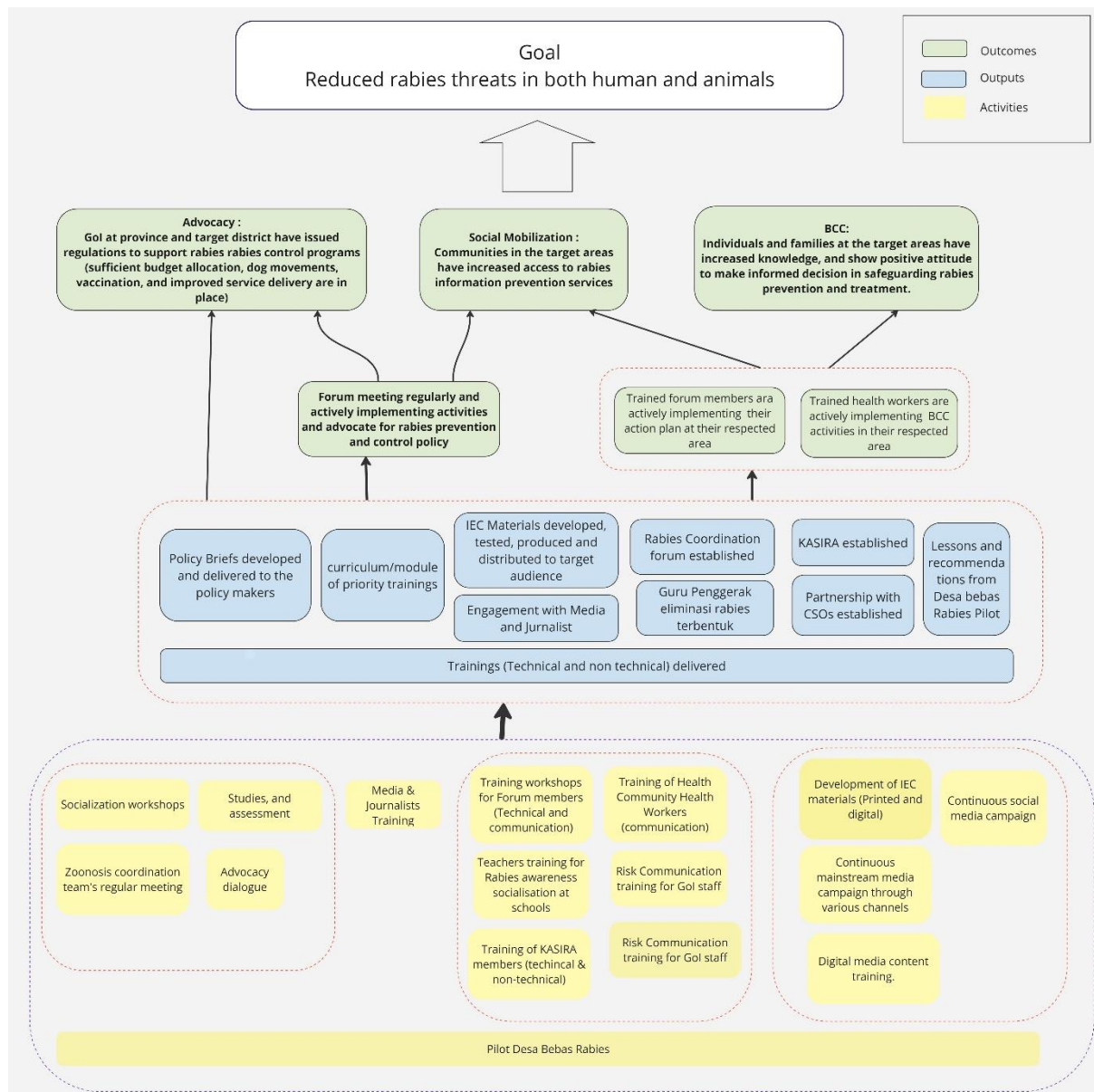
RCCE Initiative Activity Framework

The AIHSP had initiated several RCCE activities in response to the emergency state in TTS and its surrounding areas in West Timor that were initially considered to be at highest risk of rabies cases. The following sequence sets out the logic of the theory of change and how the activities are expected to create immediate and longer-term outcomes to control rabies.

Theory of Change

The theory of change outlines the mechanism by which the RCCE strategy intends to achieve lasting changes in priority behaviours and outcomes, leading to a broader impact on the population. The conceptual model provided below visually and conceptually illustrates the sequence of activities. It delineates the primary factors influencing poor bite case management and dog vaccination, the link to intervention activities, and the specific activities themselves.

Figure 3. Rabies West Timor RCCE Theory of Change



Since the end of 2023, AIHSP has spearheaded various RCCE pilot initiatives across TTS and Belu Districts. Additionally, several initiatives have been led by other development partners, including other DFAT-funded projects such as SKALA. WHO is also planning to support the Ministry of Health in conducting a baseline study as a foundation stone for their advance mass media campaign in TTS and TTU. It is important to highlight that these activities represent collective endeavours, necessitating ongoing monitoring and coordination, as well as the potential replication or expansion of efforts to ensure broader coverage and outreach, particularly among those with limited access to information and services.

While the earlier part of this document identifies the need to address the whole range of target audiences, ranging from health service providers to decision makers, CSOs, religious communities, and community leaders, the strategic emphasis of this plan is squarely on changing community risk behaviours. Subsequent plans will address the array of diverse stakeholders, providing tailored strategies tailored to each group's unique needs and their opportunities to support the control of rabies. Additionally, we recognize the vital role of integrating direct influencers in the community, such as *kepala desa* (village heads), cadres and religious leaders, into our framework to enhance community engagement and ensure effective implementation at the grassroots level.

What Has Been Done?

Important rabies RCCE initiative activities that have been done in West Timor are as follows:

- **Banners, billboards, posters, flipcharts, flyers and other printed materials:** AIHSP already produced and distributed significant quantities through initial priority channels: elementary schools and puskesmas. These are in Bahasa Indonesia, agreed with NTT Government to be the first priority. Mostly in TTS and Belu with some in TTU and Malaka. SKALA has distributed more of these materials through village heads in TTU, TTS, Belu and Malaka. SKALA has also produced some of these materials in local languages.
- **Website landing page:** (www.stoprabies.or.id) Developed by the Task Force with SKALA support. All information needed by the community to support rabies control and prevention will be available to those with internet access. More recently printed materials have a QR code linking to this.
- **Interpersonal Communication (IPC) training:** AIHSP ran initial training for 34 village cadres from highest priority villages in TTS. This is being followed-up by AIHSP and Dinas Kesehatan through a WA Group. This is a key activity that has to go hand-in-hand with other communication media but is resource intensive. Much more is needed.
- **KASIRA:** AIHSP conducted launch and training in Belu in first week of April 2024, followed up after *Lebaran* with refresher/relaunch in TTS. TTU and Malaka representatives also participated. KASIRA is a key approach in ensuring community ownership and leadership of the fight against rabies.
- **Partnership with a faith-based organisation, GMIT:** The GMIT is the predominant Protestant church in West Timor, Protestantism being the majority religion in all West Timor districts except Belu and Malaka which are more Roman Catholic. AIHSP has entered into a partnership with the GMIT and supported the production of a rabies-themed book of sermons and reflections which has been distributed to all churches in TTS and to some churches in the other districts of West Timor. There is also an e-version available.
- **Media engagement, through podcast:** AIHSP organised a podcast with Pos Kupang, one of the most important news media in NTT. There is potential to undertake more such events.
- **RAN Perda socialization and implementation.**
- **Digital Activation (videos for social media):** One is complete. Another is in preparation.

Moving forward, this strategy proposes recommendations for various initiatives, outlining suggested coordination and long-term leadership to ensure sustainability and effective oversight. The framework that follows delineates actionable steps and designates responsible parties for executing these activities, along with recommended communication tools or resources. These recommendations are grounded in the overarching goals of the strategy.

Table 3. Rabies RCCE Initiative Activity Framework

RCCE Initiative Activities	Lead	Implementing Partners	Resources, tools, reference, etc.
Baseline Study, including identification, data collection and analysis of public knowledge, attitudes and practices related to rabies	WHO	Task Force, Provincial Govt., District Govt., NGOs, CSOs, CBOs, Red Cross, etc.	Knowledge, attitudes, and practices toward rabies in three provinces of Indonesia - PMC (nih.gov) ; AIHSP-led GEDSI Profile Analysis of TTS and Belu Districts
Printed IEC materials	AIHSP, SKALA, Task Force	Provincial Govt. SKALA, NGOs, CSOs, FBOs, etc.	AIHSP-led rabies IEC materials , MoA and MoH-led rabies IEC materials , SKALA
Risk Communication Training of Trainers for District and Provincial Govt. officials	AIHSP, MoH, Provincial Govt.	Provincial Govt., District Govt., Health Training Centres, etc.	AIHSP-led Risk Communication Training for Healthcare Workers module in collaboration w/ Bapelkes Semarang
Risk Communication Training for District Govt. and Puskesmas officials	Provincial and District Govt.	Provincial Govt., District Govt., Health Training Centres, etc.	AIHSP-led Risk Communication Training for Healthcare Workers module in collaboration w/ Bapelkes Semarang
Direct socialization at schools			
Facilitator training of trainers (ToT) for continuous Rabies Awareness Campaign at school	Task Force, Education and Culture Office	Provincial Govt., District Govt., AIHSP, KASIRA, NGOs, CSOs, CBOs, etc.	ToT module developed by MoA , module adaptation by AIHSP , etc.
Guru Penggerak Eliminasi Rabies			
Scale-up and capacity strengthening of KASIRA	Task Force, AIHSP	MoA, Provincial Govt., District Govt., AIHSP, NGOs, CSOs, CBOs, etc.	KASIRA structure and model developed by MoA and adapted in Bali Province (TISIRA).
Rabies-themed interpersonal communication training for CHWs	Provincial/ District Govt., AIHSP	Provincial Govt., District Govt., AIHSP, NGOs, CSOs, CBOs, RCCE-Working Group, etc.	AIHSP-led IPC training module adaptation

RCCE Initiative Activities	Lead	Implementing Partners	Resources, tools, reference, etc.
Direct socialization at the village level by trained cadres and CHWs	District Govt., Task Force	Puskesmas, Red Cross, CSOs, CBOs, etc.	IPC for rabies training module, rabies IEC printed materials, etc.
Training on Integrated Bite Case Management (IBCM)	Task Force, Animal Husbandry Office, Health Office	District Govt, BNPB, BPBD, AIHSP, etc.	IBCM training module developed by MoH
Desa Bebas Rabies	Task Force, BNPB/BPBD	District Govt., CBOs, Red Cross, etc.	Adaptation from Desa Tangguh Bencana
Digital campaign and audiovisual content generations	AIHSP, Task Force	Provincial Govt. CSOs, CBOs, local influencers etc.	Rabies IEC materials as references
Partnerships with local media	Task Force, AIHSP, Department of Communication, and Informatics	Provincial Govt., NGOs, CSOs, local media company, journalists, etc.	Rabies IEC materials, recent status report as references
Journalism Training & Fellowship on Rabies	Task Force, Department of Communication, and Informatics	Provincial Govt., AIHSP, NGOs, CSOs, local media company, journalists, etc	Adapting AIHSP's module for COVID-19 Journalism Training & Fellowship
Partnerships with religious communities and leaders	AIHSP, Task Force	FBOs, Protestant and Catholic Churches, Mosques, etc.	Rabies IEC materials, recent status report as references

Timeline

Table 4. Timeline of RCCE Activities Preparation and Implementation

RCCE Activities	2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Identification, data collection and analysis of public knowledge, attitudes and practices related to rabies			X					
IEC materials printing and distribution	X	X	X	X				
Risk Communication Training of Trainers for District and Provincial Govt. officials		X				X		
Risk Communication Training for District Govt. and Puskesmas officials		X		X		X		X
Direct socialization at schools	X	X	X	X	X	X	X	X
Facilitator training of trainers (ToT) for continuous Rabies Awareness Campaign at school	X	X	X	X				

RCCE Activities	2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Guru Penggerak Eliminasi Rabies				X	X	X	X	X
Direct socialization at the village level by trained cadres and CHWs	X	X	X	X	X	X	X	X
Scale-up and capacity strengthening of KASIRA		X	X	X	X	X	X	X
Rabies-themed interpersonal communication training for CHWs	X	X			X	X		
Training on Integrated Bite Case Management (IBCM)	X		X		X		X	
Desa Bebas Rabies				X	X	X	X	X
Digital campaign and audiovisual content generations		X		X		X		X
Partnerships with local media	X	X	X	X	X	X	X	X
Journalism Training & Fellowship on Rabies				X	X			
Partnerships with religious communities and leaders	X	X	X	X				
Monitoring & Evaluation	X	X	X	X	X	X	X	x

Monitoring & Evaluation

Monitoring & Evaluation (M&E) plan for the RCCE strategy will be developed in NTT to cover activities in the mid-term (up to October 2024), and long-term (up to 2 years). The M&E plan will be developed with urgency and in parallel to the development of the RCCE strategy. AIHSP will only be supporting activities until October 2024.

The M&E plan will be developed recognising challenges of resources, including AIHSP staff availability given the current stage of the project cycle. It will provide an M&E framework (including indicators, baseline values and arrangements for data collection, targets, means of verification, definitions, reporting and its frequency, and data disaggregation). The M&E plan should also include details related to resources/ budget, methods, roles and responsibilities, timelines, and data collection tools.

It is crucial to emphasize that the entire strategy's effectiveness and the ability to measure its impacts depend on establishing baselines. These baselines are necessary to track progress and evaluate outcomes accurately.

Indicators will be defined at the output, outcome and impact level. Where appropriate, data will be disaggregated by gender, location, and by category of targets of change i.e., school children, parents, the elderly. Examples of indicators that will be considered include:

Impact indicators:

- Number of human deaths caused by rabies
- Number of positive brain sample in dogs

Outcome indicators:

- % of targets of change with an increase in awareness about RCCE strategy key messages, such as the importance of vaccinating pets against rabies
- % of targets of change with an increase in awareness of misconceptions or myths about rabies transmission and prevention
- % of households implementing recommended practices for preventing exposure to rabies (behaviour of measure to be defined later)
- % of households agree to vaccinate their dogs
- Number of reported bite cases

Output indicators:

- Number of elementary schools enrolled in RCCE Strategy activities
- Number of puskesmas, puskesmas and posyandu conducting RCCE Strategy activities
- Number of informational sessions conducted on rabies prevention and control
- Number of people reached through various communication channels of RCCE Strategy
- Number of community health workers' and leaders', teachers' and other direct influencers' capacity strengthened

It is important to note that the final set of indicators may differ from these and will be based on the final RCCE Strategy and consultation with relevant stakeholders.

Baseline information will need to be collected e.g. primarily in relation to Knowledge, Attitudes, and Practices of the targets of change (children, parents, elderly, people with disability). Preparations for this, need to commence imminently. This activity was initially planned to be outsourced by AIHSP, but seeing as: (1) AIHSP's remaining implementation time is very limited; (2) NTT Government stakeholders are preoccupied with other activities during the third quarter of 2024; and (3) WHO has planned to undertake a similar baseline study; AIHSP has decided not to proceed with this activity and rather work closely with WHO and their proposed baseline study.

In addition to tracking progress against indicators, AIHSP will continue to use the methodology of Outcome Harvesting to identify, describe, verify and analyse changes brought about by the RCCE initiative.