UNITED REPUBLIC OF TANZANIA

MINISTRY OF LIVESTOCK AND FISHERIES

NATIONAL STRATEGIC PLAN FOR THE CONTROL AND ERADICATION OF PESTE DES PETITS RUMINANTS (PPR)

2025 – 2030

"Towards a Resilient, Productive and PPR-Free Livestock Sector"

Prepared by:

Department of Veterinary Services

In Collaboration with:

National and International Stakeholders in Animal Health

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The Government of the United Republic of Tanzania reaffirms its commitment to the control and eradication of Peste des Petits Ruminants (PPR) as a strategic priority for livestock development and national economic growth. This National Strategic Plan (2025–2030) builds on past achievements and lessons to provide a coordinated, evidence-based framework aimed at improving animal health, enhancing productivity, and strengthening the resilience of livestock-dependent communities.

Small ruminants play a vital role in the livelihoods of millions of Tanzanians, particularly among pastoral and agro-pastoral households. Recognizing this, the strategy adopts a risk-based, ecosystem-oriented approach aligned with regional and global eradication initiatives. It prioritizes strengthening veterinary services, improving surveillance and diagnostic systems, scaling up vaccination campaigns, and enhancing stakeholder engagement across the livestock value chain. The plan emphasizes collaboration among government institutions, development partners, private sector actors, research organizations, and local communities. Given the transboundary nature of PPR, cross-border coordination and harmonization of disease control measures are essential components of this strategy. The integration of a One Health approach further ensures that livestock, wildlife, and environmental considerations are addressed holistically.

Successful implementation will depend on strong political commitment, adequate resource mobilization, and effective participation of all stakeholders. The strategy promotes innovation, digital tools for surveillance and reporting, and robust monitoring and evaluation systems to support evidence-based decision-making. Community awareness and engagement remain central to ensuring ownership and sustainability of interventions. As Tanzania works toward achieving PPR eradication by 2030, this plan provides a clear roadmap for coordinated action and measurable impact. It calls upon all stakeholders to collaborate in building a resilient, productive, and disease-free livestock sector that contributes to food security, poverty reduction, and sustainable national development.

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The Ministry of Livestock and Fisheries expresses its sincere appreciation to all individuals, institutions, and partners who contributed to the development of the National PPR Control and Eradication Strategic Plan (2025–2030). The successful preparation of this document reflects the collective efforts, technical expertise, and commitment of a wide range of stakeholders dedicated to advancing animal health and livestock development in the country. Special recognition is extended to the Department of Veterinary Services for its leadership, coordination, and technical guidance throughout the formulation process. The contributions of national institutions, including the Tanzania Veterinary Laboratory Agency (TVLA), Tanzania Wildlife Research Institute (TAWIRI), Sokoine University of Agriculture (SUA), and other research and academic bodies, were instrumental in providing scientific evidence and technical inputs that shaped this strategy.

The Ministry also acknowledges the valuable support from development partners and international organizations, notably the Food and Agriculture Organization (FAO), World Organisation for Animal Health (WOAH), Inter-African Bureau for Animal Resources (AU-IBAR), Globar Alliance for Livestock Veterinary Medicines (GALVmed) and other collaborating partners, whose financial and technical assistance greatly enriched the planning process. We further extend our gratitude to regional and district authorities, livestock field officers, private sector actors, and livestock keepers for their active participation and practical insights during consultations and validation workshops. Their experiences and perspectives ensured that this strategy is grounded in field realities and responsive to the needs of communities.

Finally, the Government acknowledges the continued collaboration of all stakeholders and looks forward to sustained partnerships in implementing this strategy toward achieving PPR eradication and strengthening the livestock sector for improved livelihoods and national development.

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EXECUTIVE SUMMARY

Goats and sheep represent the second and third largest proportion of the livestock population in Tanzania, respectively. Tanzanian goat and sheep wealth at the end of 2022/2023 was 25.6 and 8.8 million respectively, representing 5% and 2.2 % of the continental flock population (Kamer, 2023/Budget speech, 2023/2024). The two animal species represent 35% and 12% of the national population of quadruped meat producing animals. More than 99% of goats and sheep are kept in low-input low-output systems, owned and managed by 2,482,493 low income mixed and pastoral households who operate under traditional husbandry system, often with little or no access to informed and relevant animal production advice or reliable veterinary services.

Peste des Petits Ruminants (PPR), a highly contagious disease of disease of wild and domestic small ruminants, is a major obstacle to the development of the livestock industry because of its adverse effects on health, production and on trade of animals and animal products into lucrative export markets. The disease is caused by a virus that belongs to the genus *Morbillivirus* in the family Paramyxoviridae of the same family as the one causing rinderpest. PPR is endemic in Tanzania and the affected area is extensive. Conservative loss estimates following disease incursion in Tanzania indicated that at household level TZS 335,420 (US$ 233.6) could not be earned due to PPR and in total TZS 735,820 (490.6 US$) were lost due to mortality and forgone revenue. The cumulative loss due to PPR was estimated to be around TZS 101.8 billion (US$ 67.9 million).

PPR is one of the priority animal diseases earmarked for control and eradication and hence the need to have a clear Risk Based Strategic Plan (RBSP) for its control and eventually eradication. This Risk Based Strategic Plan is intended to control the disease in the progressive way basing on Progressive Control Pathways developed by FAO and endorsed by OIE to be used in disease endemic countries for the purpose of developing PPR disease free status with an intention of facilitating livestock and livestock products trade. The revision of the strategy (Phase 1) has been driven by the need to align it to the PPR Global Eradication Programme II &III Blue print (launched in 2022), existing national development strategies while taking into account lesson learnt from the first five years phase I (2017-2021) of the eradication programme. The planned activities are aligned with the **“Regional, Continental and Global eradication effort”** and the broader Veterinary Service strengthening with full small ruminant value chain involvement; map and mobilize existing and potential domestic and external financing to support the delivery of the national action plan, enhanced partnership engagement, elaborated risk communication to minimize control and disease spread; and strengthen institutional framework to support production and Animal health service provision.

Vaccination approach will be epizone based, appropriately informed by risk based surveillance.

Cross border coordination will also form the centre of disease eradication and this will involve liaison and establishing linkages with member states in the region. Main activities will include operationalization of existing (and other to be developed) cross-border MoUs, defining animal movement patterns, hosting of regular cross-border meetings, joint, coordinate and harmonized surveillance and disease control plans.

The implementation of the plan will consider a set of guiding principles and core values such as country ownership and leadership; community participation; strengthening partnerships; fostering inter-sectoral collaboration; evidence-led; shared responsibility; resilience and dynamism. This plan will cover key core 4 component areas i.e. **Enabling environment promotion; Support to the diagnostic and surveillance systems; Measures toward PPR eradication as well as Coordination, Management and partnerships.**

Funds for implementation of the plan will come from domestic sources as well as from development partners. Additionally, evaluation of the entire eradication efforts and Veterinary Services will be based on PMAT tool that has been developed and agreed globally reflecting all required 33 WOAH (OIE) key minimum competencies. **The implementation plan for the strategy has been developed indicating activities, implementers and expected outputs.** In addition, the plan indicates budget estimates required to support implementation of this strategy. The strategy will be implemented over the period of 6 years, covering 2 key control phases with an indicative budget amounting to **Tshs 32.2 billion ($12,500,000 = Tshs 32,187,500,000).**

I. INTRODUCTION AND CONTEXT

In Tanzania, livestock represent on average of 26,1% of the Agriculture Gross Domestic Product(GDP) and about 6,2% (of the national GDP and up to 70% of the rural population depends on livestock for their daily income and livelihoods (World Bank 2024). Therefore, livestock keeping creates huge employment opportunities for rural youth and women. The current goat's population is 28.6 million and sheep 9.7 million, (Budget speech, 2025/2026). Collectively, the two animal species provide livelihood to 2,482,493 households (Budget speech, 2025/2026). A total of 3,330,000 goats and sheep were sold in livestock markets and meat production was 181,661.89 tons in 2024/2025. During 2024/2025 financial year, up to April 2025, Tanzania exported 8484 tons of goat and sheep meat worthy 28.51 million USD which is 64.69% of total revenue accrued from meat export.

The national herd is dominated by indigenous breeds which are currently exhibiting low productivity but has much potential if improvements can be made in feed, and health. The country has many other outstanding natural resources to support livestock development which include extensive rangelands, water bodies, diverse natural vegetation and diversely resilient production livestock breeds. Despite these resources, there is widespread agreement that the livestock sector is presently performing below its potential. Presently, livestock activities contribute only 6.2 to the country's GDP and the annualized growth rate of the sector is low at 5% This growth for the large part reflects an increase in livestock numbers rather than productivity gains. On the other hand, small ruminants are an important component of pastoral coping mechanism and easily supported to rebuild herds after environmental and climate shocks. Nonetheless, the government annually invests on livestock development by increasing its budget to improve infrastructure, diseases control programs, extension services and markets. For example, the Development budget has increased from 20,317,847 USD in 2022/2023 to 163,103,653 USD in 2025/2026

The sector is severely constrained by low livestock reproductive rates and diseases (Tanzania Livestock Modernization Initiative - TLMI 2015). Of the diseases, PPR is found in some parts of the country resulting into losses during outbreaks. Self-assessment based on PMAT questionnaire undertaken in 2023 during regional consultative and road map meeting of 2022-2023 placed Tanzania in stage 3 in recognition of the PPR status based on surveillance, diagnostic, research, legal framework and prevention/control activities carried out between 2021/2022 – 2023. However, pending issue to move to stage 4 and eradications are heightened risk-based mass vaccination and post vaccination monitoring, more stakeholder and private sector engagement and regulatory functions strengthening. Information on country profile, small ruminant population, value chain analysis and PPR situation in the neighbouring countries are detailed in **Annex 1-4.**

- *Previous phase one of PPR National Strategic Plan*

In 2016-2017, Tanzania developed, a (regional and global aligned) National PPR control strategy. The broad objective of the strategy was to strengthen veterinary services to enhance surveillance but importantly to control and eradicate PPR as envisioned globally by 2030. Tanzania has continued to implement the planned activities, however, at a slow pace due to a number of factors including limited resources, competing other national animal health activities, inadequate control goat and sheep movements, reluctance of some farmers to vaccinate due to low awareness and less participation of private sectors in the disease control efforts among others.

Some of the achievements and milestones over the last five years include the appointment of the national PPR disease coordinator in 2017, establishment and launch of PPR national advisory committee, development of standard operating procedures (SOPs) for PPR surveillance in 2018, development of Animal Health Surveillance Strategy in 2020, development of vaccine and vaccination regulation of 2020, increased number of vaccination coverage from 275,275 doses in 2017/2018 to almost 5 million in 2022/2023, establishment of PPR vaccine production factory, development of priority animal diseases, PPR inclusive; vaccination guidelines/strategy for public and private sector actors in 2023 and the Livestock Sector Investment Plan (LSTP), 2022/23-2026/27.

The appointment of the national coordinator has spearheaded collaborative efforts among sectors to prevent, detect and respond to PPR challenges in livestock /wildlife interface using a multidisciplinary approach. These collaborative activities include the cross border research initiatives in 2019 aiming at developing and validating PPR diagnostics among varied PPR virus susceptible/reservoir wild animal spp which was jointly supported by Royal Vet College (RVC), CIRAD, University of Glasgow, Southern Africa Centre for Infectious Disease Surveillance (SACIDs) and Global Challenge Research Fund (GCRF). Other collaborative initiatives include laboratory twinning for PPR diagnosis, supported by WOAH and surveillance activities supported by FAO and International Livestock Research Institute (ILRI). The coordination level at DVS office has also played a pivotal role in the procurement of PPR vaccine, mainly supported by FAO and private vaccine producing firms, Hester Bioscience Africa Ltd and Tanzania Vaccine Institute (TVI), respectively. Of late, the epizone PPR control approaches (covering Tanzania, Uganda, Rwanda and Burundi) supported by ILRI, GIZ and VSF-German demonstrates and indicate concerted effort that has been directed toward PPR control. During the first phase and through surveillance, cases have continuously been reported in Tanzania from 2015 to 2019, though from 2019 to date cases have been going down. Vaccination have been going on risk bases, the number of doses used from 2017 to 2023 were 1,368,000 (2017), 1,573,000 (2018), 1,370,000(2019),

2,557,870 (2020), 4,071,541(2021) 6,930,953 (2022) and 3,613,061 (2023), respectively. Furthermore, sero monitoring have been going on at the same period where pre and post vaccination evaluation was done and in 2017 pre vaccination prevalence was 3.35% and post vaccination seropositivity was 71.3%. However, in 2022 pre vaccination sero positivity was 29% and post vaccination seropositivity was recorded 96%.

As noted above, most of the achievements so far have been made possible through government funding (MLF) and by the financial and technical assistance of development partners, especially the FAO, RVC-UK, WOAH, ILRI, GIZ, Private sector (Hester Bioscience Africa Ltd), Agencies TVI, NCCA, TVLA) among others. Contributions and support have also been obtained from academic and research institutions.

II. SITUATION ANALYSIS AND ACHIEVEMENTS TO DATE

II.1. Summary of the five technical areas (Diagnostics, Surveillance, Prevention and Control, Legal framework, and stakeholder engagement) of GCES

In common to many veterinary settings worldwide; coupled with WOAH, FAO guidelines and standards, laboratory plays a major role in supporting evidence-based field investigations and notifications. Diagnostic tests relevant to PPR and other SRDs are undertaken at TVLA central laboratories, Centre for Infectious Disease and Biotechnology (CIDB) and TVLA satellite laboratories as shown in sect II-5 below. Country diagnostic capacity to detect the disease promptly is in place and considerable range of methods and tests are undertaken by veterinary laboratories. The diagnostic service range from antigen and antibody detection, virus nucleic acid recognition to virus isolation. National laboratory is PPR accredited lab and reference lab for SADC region and University laboratory used for proficiency testing with CIRAD.

The major gaps include low number of samples received and processed due to low awareness of farmers on the use of animal laboratory diagnostic services, limited availability of laboratory centers, inadequate laboratory consumables; funding and lack of validated serological tests tools to screen wildlife samples.

Over the last five years, 40000 (TVLA) biological samples (sera, tissue, whole blood), were collected and screened for PPR. Public and Training institutions, namely SUA, NM-AIST, TAWIRI laboratories have played great role in PPR diagnosis. Conventional surveillance systems (passive, active and participatory), coordinated by 8 strategically located veterinary Investigation centers country wide, has been the central areas for disease surveillance and monitoring.

The key challenges around surveillance and diagnosis include limited funds, lack of field consumables and capacity to undertake field outbreak investigation at sub national levels. Another challenge include limited sharing of lab information amongst TVLA

satellite labs and between non-TVLA labs. Sharing of lab information to the national epidemiology unit still remain weak.

The decentralized structure of the veterinary services in the United Republic of Tanzania also creates some degree of disconnect between the central and regional/district-level activities and there are less representation of private sector in the official surveillance system.

To facilitate legal movement control process, measures such as strengthening of holding grounds, quarantine and check points facilities at designated point and border points to screen and clear clean animals for trade are given due priority. All stakeholders such as the police, veterinary field officers/inspectors, media, customs officials and farmers themselves are engaged to support the movement restrictions within and between diseases quarantined areas. Engagement of stakeholders are made in terms of joint awareness creation meetings, update on existing legislations, roles and responsibility of each stakeholder and best disease control practices. Implementing biosecurity measures are hampered by inadequate infrastructure, weak private sector participation, inadequate knowledge on PPR (and TADs in general) among stakeholders, small ruminant value chain actors and ability to enforce movement control measures attributed by the limited of resources (human and fund) and porous borders. The very large small ruminant populations in the range land that are highly mobile and the fact that stakeholders in this more often than not informal livestock sector are poorly organised (i.e. weak formalisation of the sector) compromises control efforts.

II.2. Other small ruminant priority diseases

Other small ruminant diseases of importance include CCPP, sheep and goat pox, anthrax, Bluetongue disease and Orf disease, brucellosis and RVF. The listed diseases are included in the routine diseases surveillance and institute control measures. The developed Animal Health Surveillance Strategy in 2020, Vaccine and vaccination regulations of 2020 made vaccination against priority diseases to be mandatory that lead to increased vaccination coverage. The readily availability of vaccines from TVI and HBAL also increased the coverage and incidences of some of the diseases has been tremendously reduced like RVF and CCPP.

II.3. Wildlife

Tanzania set aside 40% of its land area for conservation of natural resources and large part of this area is occupied by wildlife. The human-livestock-wildlife interface are large areas, which create constant interactions between wild and domestic animals in particular ruminants and share different kinds of diseases including PPR. Studies show that PPR virus affects wild ruminants like antelopes and buffalos while some serve as sentinels for PPR virus (PPRV) circulation in domestic animals. Studies have reported

evidence of PPR virus exposure in African buffalo, Grant's gazelle, eland, giraffe, hartebeest, kudu, oryx, roan antelope, sable antelope and topi (Lembo et al., 2013; Jones et al., 2021; Mdetele et al; 2021). Based on recent research results undertaken in the Greater Serengeti ecosystem and elsewhere (Mahapatra et al 2015; Jones et al. 2021) there are likelihood of spill-over of PPRV from nearby populations of infected domestic small ruminants leading to sporadic wildlife epidemics and possible cross-species transmission between wild species, while spillback from wildlife to livestock has not been reported. The uncertainty around the role of wild species in PPRV transmission and maintenance is an important knowledge gap that need to be addressed as we embark on phase 2 and 3 of global eradication efforts. Routine surveillance on different diseases are done coordinated by Tanzania Wildlife Institute and are routinely reported to the DVS.

To address these knowledge and operational gaps, the NSP will implement a set of prioritized wildlife-livestock interface activities. These include establishing sentinel surveillance sites in key ecosystems, validating non-invasive diagnostic techniques, and developing joint outbreak response protocols. These actions are directly informed by the Nairobi Communique (October 2025) and aim to operationalize a true One Health approach to PPR eradication.

II.4. Organization and capacity of the Veterinary Services (VS)

The overall responsibility of the Department of Veterinary Services is to improve the health and productive efficiency of the livestock sector in a sustainable manner and support the marketing of livestock and livestock products in order to contribute towards alleviation of poverty, food security and income generation. The role of the private veterinary sector in disease control is coordinated by the DVS. By law the private sector reports to the DVS on issues to do with disease control on notifiable diseases.

The organizational structure of veterinary services has its presence at National, Regional, District and village levels. The DVS is composed of Field Services which is responsible for disease prevention and control, the laboratory services that is responsible for animal disease vaccine production, diagnosis and research, the National Epidemiology Unit that is responsible for surveillance and early warning. Control of Trans-boundary Animal Diseases (TADs) and diseases of economic importance is the responsibility of the Government. Control of non-TADs is the responsibility of the private sector and other stakeholders. Private sectors are also involved in procuring vaccines for TADs, supply of veterinary pharmaceuticals and other inputs under the supervision of the government.

The Livestock modernization initiatives (TLMI) of 2015 recommended prompt action by the public veterinary services against PPR and other TADs as a whole.

Functions that the public service will provide, includes: -

- Emergency disease planning and response to PPR and other TADs outbreaks;
- Regulatory functions of animal diseases (PPR and others) and quality of veterinary inputs including veterinary medicine and biological (vaccines, reagents, laboratory equipment's etc.);
- Diagnosis and Reporting;
- Monitoring of PPR and other TADs;
- Quarantine and its proper management;
- Surveillance of PPR and other TADs.

Shared responsibilities (private and public) in PPR control will be in research, extension, vaccine production, delivering and vaccination.

Functions that the private service will provide, as far as PPR and other TADs are concerned will be clinical services, passive surveillance**,** manufacturing, ordering and procurement of vaccine of TADs under supervision of the veterinary services and sanitary mandates i.e. vaccination as delegated by DVS.

The capacity of the Veterinary Service and its performance was assessed by WOAH (founded as OIE) and gaps for improvement identified. The major findings, weaknesses, strength, level of advancement and recommendation of key critical competencies relevant to PPR are given in the table 1.

Table 1 : PVS évaluation assessment conducted and reports available, 2008-2016

	Date when conducted	Level of confidentiality*	Comments (if any)
WOAH PVS initial evaluation	2008	Not confidential –report is accessible to WOAH partners and donors.	Report revealed broken chain of command, low funding and serious lack of veterinarian in the field and over reliance of para vets. On the positive side, the evaluation acknowledge the existence of vet school and reasonable working epidemio-surveillance and early warning system
PVS gap analysis	2009	Not confidential –report is accessible to a wider range of stakeholders	Recommend strengthening competencies on the use of veterinary laboratory diagnosis, epidemiosurveillance and information system
Veterinary Legislation Identification Mission	2014	Not confidential –report is accessible to wide range of stakeholders	Veterinary statutory body authority has greatly improved from 2008 to 2014, however statutory capacity showed no remarkable change since last evaluation(2008)
WOAH PVS Follow up evaluation	2016	Still confidential	Despite of large number of staff training, deployment (at national and sub national level) has not been to the level required. Underreporting is high because over 90% is based on clinical signs and state funding for core and sustained surveillance has been low, border control have weak points with gaps in infrastructures and funding disease control program has been low over years
Other WOAH capacity building activities (laboratory mission; twinning programmes)	2013-2017	Not confidential – the report is accessible to wide range of stakeholders	Twinning programmes: 1. PPR (CIDB/UK/CIRAD)-2017 to-date - completed 2. Brucellosis (CVL/Argentina)-

			Approved 3. Veterinary Education(SUA/Kansas University, USA)-completed 4. Veterinary Council of Tanzania(VCT)/South African Veterinary Council (SAVC)-completed

Based on WOAH PVS reports activities foreseen in the next 2 to 3 years include capacity building on risk analysis(training and promote the use of risk findings from epidemiological reports in planning activities); operationalization of existing internal and external MoU; Facilitate establishment of National and Regional or District level stakeholder advisory committees; Strengthen field and laboratory support for surveillance to reduce risks of under-reporting; Encourage and reinforce the supervision of VPPs by DVOs as well as the collaboration amongst these officials to increase the quality of veterinary expertise available at field levels; creating and building a strong partnership between DVS and small ruminant value chain actors, up scaling risk based vaccination activities followed by robust post-vaccination evaluation.

II.5. Organization and capacity of the Veterinary Laboratories (VL)

Tanzania Veterinary Laboratory Agency (TVLA) is mandated to undertake animal disease research, vector control research, testing of veterinary pharmaceuticals, development and production of biologicals and ensuring efficient and effective Agency. Other services include, testing for safety and quality of animal feeds and animal products, consultancy and advisory and, animal disease diagnostic services. Of the animal disease diagnostics services, the Agency has a special focus on the Transboundary Animal Diseases (TADs). The Agency has 13 centres that are geographical and strategically located to reach most of the livestock farmers across the country. Of the 13 centres, 10 do conduct diagnostic services, these are: the Central Veterinary Laboratory (CVL) and Centre for Infectious Diseases and Biotechnology (CIDB) both in Dar as Salaam; TVLA-Arusha; TVLA-Dodoma; TVLA-Iringa; TVLA-Mtwara; TVLA- Sumbawanga; TVLA-Mwanza; TVLA-Tabora; TVLA Meatu – Simiyu and Vector and Vector-borne Disease –Tanga. On the contrary, Tanzania Vaccine Institute (TVI-Kibaha) and Tsetse and Trypanosomiasis Research Centre (TTRC-Kigoma) are solely dealing with technology development. Other non TVLA laboratories include SUA, TAWIRI (wildlife) and NM-AIST. Both are public/private laboratories focusing on capacity building (research/training) and general diagnostic services. Both are very well equipped and diagnosis goes as far to the molecular level. There are no laboratories functioning at the district levels, though future plan is to in cooperate them into the

network structure. The main laboratory diagnostic gaps include: low number of samples received and processed due to low awareness of farmers on the use of animal laboratory diagnostic services; inadequate laboratory consumables; inadequate financial resources including fragmented funding and lack of validated serological tests tools to screen wild life samples.

II.6. Organization and capacity of the Veterinary Vaccines Production (VVP)

Production of small ruminant vaccines including PPR is done by Tanzania Vaccine Institute (TVI), a government owned institution and a private company; Hester Bioscience Africa Limited (HBAL). TVI produces vaccines of CCPP 500,000 doses, 500,000 doses of anthrax, 100,000 doses brucellosis and soon will start production of PPR at 500,000 doses per year. On the other hand, HBAL produces vaccines of PPR 2 mil doses, CCPP 2 mil doses, sheep and goat pox 1 million doses, anthrax 1 million doses, Bluetongue disease (BT) 1 million doses, Orf Disease 1 million doses and Ovine pasteurellosis 1 million doses. The vaccine doses are distributed countrywide in zones where there are cold rooms, which supplies the vaccines to districts, which have refrigerators for vaccine storage, and to the ward and village levels where cool boxes with ice packs are available. In addition, the government gives special permits to import vaccines of proven quality for small ruminants and the commonly imported include PPR, CCPP, brucellosis and Orf disease. Imports are demand driven or based on urgency need by the government or stakeholders. Barriers to vaccine use in small ruminants in Tanzania include farmer inadequacy of disease knowledge, disease history on the farm, vaccine price, erratic supplies, long distance from vaccine source, distribution and storage challenges.

II.7 Surveillance system

PPR passive and active surveillance in Tanzania is an on-going process. Surveillance is coordinated through 8 strategically located zonal veterinary investigation centre each serving a minimum of 5 administrative regions and 30 local government administrations (LGA's). The main source of information is from community/ producers and the dissemination is upward to LGA's, regions, zonal veterinary Investigation centre to National epidemiology Unit. Disease outbreak that warrant detailed active investigation is coordinated and undertaken jointly between District Veterinary Office (LGA's) and zonal veterinary investigation centre (ZVC.) Emphasise for phase 2 and 3 of the eradication will be 'risk-based' and 'epizone-based' in order to inform better vaccination strategies. Detailed Risk-based surveillance plan is elaborated in **Annex 6**.

II.8 Epizone approach

Regardless of national boundaries, communities around the border areas are linked by several common factors such as culture, trade and social tradition-exchange of livestock and their products. This inter connectedness of ethnic communities and their livestock

within a defined geographical areas or zone is what is referred to as an ecosystem. Tanzania recognizes 5 ecosystems that include:

- Maasai ecosystem (Tanzania-Kenya border): LGAs include Tarime, Serengeti, Ngorongoro, Longido, Siha, Rombo, Mwanga, Same, Lushoto and Mkinga.
- Kagera basin ecosystem (Tanzania, Uganda, Rwanda, Burundi, DRC): LGAs include Misenyi, Kyerwa, Ngara, Karagwe, Kibondo, Kasulu, and Kigoma.
- Southern highland ecosystem (Tanzania, DRC, Zambia, Malawi): LGAs include Nkasi, Kalambo, Tanganyika, Songwe, Mbozi, Ileje, Rungwe.
- Southern ecosystem (Tanzania, Mozambique) : LGAs Newala, Tunduru, Mtwara
  Majorities of these countries are PPR endemic and therefore necessitating for the need of harmonizing control activities such as surveillance, vaccination, information sharing and coordination meetings. Steered by ILRI and other partners, a pilot Epizone PPR control and eradication approach is being implemented in Kagera basin. Other epizones will be established under phase 2 of the National PPR implementation plan

II.9. Control and Prevention

Based on experience from the successful global eradication of rinderpest; NSP implementation phase1 (2017-2021) and the availability of effective (high quality controlled vaccine) PPR vaccines, vaccination has been identified as the main prevention and control measure required for Stage 3 and Stage 4. Therefore, implementation of best-practice, epidemiologically informed and targeted vaccination of small ruminants in 'hotspot areas' with the aim of reaching a post vaccination immunity level of 70% at flock, or at geographical areas or a farming system level so as to break the epidemiological virus maintenance and spread cycle is desirable. Sero-surveillance prior vaccination and sero-monitoring post vaccination should be carried out to ascertain vaccination sero-conversion. Vaccination should be complemented by movement control (quarantine) in order to minimize further spread of the virus.

II.10 Vaccine and Vaccination delivery

The use of effective PPR live attenuated vaccines (Nigeria 75/1, PAN-VAC approved) can induce lifelong protective immunity in vaccinated sheep and goats and cross-protect against all four PPRV lineages. The existing attenuated vaccines are widely used, but there are still some deficiencies, including low thermal tolerance and inability to differentiate infected from vaccinated animals (DIVA). Thermotolerant (TT) vaccines (due to limited cold-chain resources for vaccine storage and transport) and DIVA vaccines with an associated DIVA test need to be developed to facilitate the widespread use of PPR vaccines to enhance flock immunity and differentiate between vaccinated and naturally infected animals. DIVA test will prove very useful tool for the eradication process, especially at the final stage. To incentivise vaccine uptake, combination of

PPR vaccine and other SR diseases will be promoted. Studies have shown that the current vaccine in use (Nigeria 75/1) doesn't interfere with Sheep Goat Pox and CCPP vaccine response following vaccination (ILRI, Unpublished).

Regardless of the vaccination and vaccine delivery approach, the goal should be to reach the maximum vaccination coverage in the shortest possible time. For this purpose, assessment of vaccine requirements and the vaccination campaigns need to be carefully planned and executed. Training of teams and the provision of logistics, including the cold chain, are essential. Communication is also very important, not only at a national level or using the official channels, but also in identifying the local communication networks (radio programmes, production of TV advertisements, sponsoring public relations activities, religious or celebratory gatherings). Service providers (vaccinators) need to be identified and carefully engaged in communication and implementation of the PPR vaccination campaigns under veterinary supervision. In remote or low animal density areas where public veterinary services or private veterinarians are not readily available to meet the animal health needs of the farmers, local stakeholders, NGOs, producer association will be required to cushion the gaps under PPP arrangement where appropriate.

II.11 Post vaccination evaluation

Post Vaccination Evaluation (PVE) is absolutely necessary to estimate the progress made in protecting sheep and goats against the disease. Generic approaches used include: post-vaccination serological surveys (sero-monitoring) at a defined time period after vaccination; evaluation of PPR incidence/ prevalence (based on passive surveillance and/or PDS); social surveys (participatory techniques to assess livestock owners' perceptions of vaccination success and other parameters) and flock productivity. The use of these approaches will be driven by the objectives, epidemiological situation of the disease, availability of budgets and the needs.

Rondamized collection of samples from the vaccinated animals and should be done 30 – 90 days post vaccination.

STAKEHOLDER ENGEGEMENT

Ensure that all stakeholders including livestock keepers, TAHOA, Districts Executive Directors (DEDs) regional and district administrators, politicians, Vacccine Suppliers, village Leaders, livestock association like Chama cha Wafugaji Tanzania are well informed.

LEGAL FRAMEWORK

The policy advocates for provision of veterinary services that comply with the World Organisation for Animal Health (WOAH, founded as OIE) standards and guidelines for international animal disease control and trade. Additionally, PPR is categorised among

trans-boundary animal diseases (TADs) whose advocated global framework for effective control is public intervention (public good provision), international cooperation and a disaster management approach. Furthermore, the NLP advocates that control of TADs like PPR and other diseases of economic importance to be the responsibility of government. Other legal frameworks relevant to PPR control includes The Land Act No. 4 of 1999; The Village Land Act No. 5 of 1999; Food, Drugs and Cosmetic Act No. 1 of 2003; The Veterinary Act No. 16 of 2003 and Animal Diseases Act No. 17 of 2003.

III. DESCRIPTION OF THE PLAN

III.1. PPR NSP contribution to national, regional and global development objectives

The PPR NSP is an integral part in achieving broader national, regional, and global development objectives. Goats and sheep represent 28.6% and 9.7% of the national population of quadruped meat producing animals (URT, 2024). Sheep and goats play an important role in the livelihoods and food security of poor families and contribute to national economic development. The scale of the production, trade, processing and consumption of sheep and goats means that many people are involved and these small ruminants are important for their livelihood. Women's livelihoods and resilience are particularly affected by PPR as women predominately rear small ruminants primarily for income generation and food security (FAO, 2013). Fighting PPR and eventually eradicating it means fighting rural poverty, ensuring food and nutrition security, and strengthening the resilience of poor farmers and their communities, enabling them to better cope with shocks and threats, prevent forced migration and mitigate all extreme events. It will thus make a significant contribution to the achievement of the United Nations Sustainable Development Goals (SDGs), in particular SDG 1 (poverty eradication) and SDG 2 (zero hunger), as well as SDG 5 (gender equality), SDG 8 (decent work and economic growth) and SDG 17(partnership for goals). PPR control in Tanzania is essential for regional control, given its proven potential for infecting neighbouring countries**.**

III.2. Timeframe of the plan

The strategy phase 2 and 3 (based on PPR GES II Blue print) will last for six years (2024-2030). The target date for full achievement of the aims of the Strategy is therefore the year 2030. There will be periodic review after every phase (3 years) along with the Medium-Term Plan. However, different programmes and projects through which the Strategy will be implemented will have their separate target dates.

III.3. General principles, strategies and approaches for implementation

III.3A: Alignment of the strategy with the relevant national, regional, continental and global frameworks

A number of global, regional, continental frameworks and platforms; national policies and legal instruments exist to support the implementation of the PPR control and eradication plan. By nature and to bring synergies, Tanzania PPR NSP is linked with many on-going initiatives across all levels and this include;

- The Tanzania Development Vision 2050,
- **GF TADS-PPR Regional Strategy 2021-2025**

PPR is one of the priority diseases identified in the Global framework for Trans-boundary Animal Diseases (GF-TADs) 5 Year Regional Action Plan for 2021-2025. The GF-TADs PPR advocate and provide guidance for countries on awareness raising campaigns by exchange of tools to improve risk communication, and community and stakeholders' engagement (RCCE) and drive behaviour change, technical support and guidance on cross-border surveillance and concerted risk management measures along the small ruminants (SR) value chain. In addition, the strategy strive to promote national, regional and global partnerships; strengthening prevention and preparedness measures. The plan is also aligned to the Regional(EAC & SADC), continental (AU-IBAR) and the global strategy for the control and eradication of PPR that was jointly launched by the Food and Agriculture Organization(FAO) of the United nation and World Organisation for Animal Health (WOAH) in Abidjan, April 2015.

- **Animal Health Strategy for Africa (AHSA)**

The Animal Health Strategy for Africa (2019-2035) provides a framework for delivering a sustainable animal health system in Africa that meets World Organisation for Animal Health (WOAH) and other relevant global standards. It provides a common vision and goals for the African continent for the improvement of animal health delivery systems. It is a call for African Union institutions, Regional Economic Communities (RECs) Member States and partners to adopt an integrated and holistic approach for the improvement of animal health systems in Africa, given the impact of animal diseases on the competitiveness of animal resources value chains, the increasing risk of emerging and re-emerging zoonotic diseases, climate change and inadequate environmental management.

- **SADC PPR control strategy, 2020-2030**

The strategy spells out the roles of Member States and the SADC Secretariat in addressing the threat posed by PPR to the region. The strategy emphasize and urge member state to follow a progressive pathways control approach, preventing further disease spread to PPR free countries, heightened and collaborative cross border surveillance and disease control; and regular sharing of information.

- **The National Livestock Master Plan(TLMP)-2017/18-2021/2022**

The Tanzania Livestock Master Plan, outlines Road Maps for improving production by all species of livestock including small ruminants (SR). The master plan has identified PPR and other SR diseases such as CCPP, Pox as one of the major heath constraint limiting small ruminant production. The plan provides an elaborate multi-sector and multi-stakeholder engagement and highlight the need for providing good husbandry, biosecurity measures at farm levels including capacitating animal health workers at ground level.

- **Agriculture Sector Development Programme phase 2 (ASDP II)-2016/17-2025/26**

The ASDP-2 programme (2016/2017–2025/2026) which is embedded in the Tanzania Long Term Perspective Plan (LTPP), aim to contribute to the national economic growth, reduced rural poverty and improved food security and nutrition in Tanzania. The key element relevant to PPR control is the need to create enabling policy and institutional enviroment to enhance competetive livestock growth, increased production and profitability through disease reduction; and strengthened institutional and coordination performance in the livestock sector at national and regional levels to mitigate negative impact of animal disease incursion.

- **Livestock Sector Transformation Plan (LSTP) of 2022/23-2026/27**

Livestock Sector Transformation Plan identify and sets out livestock-sector investment areas, including production of high-quality livestock breeds; water, pasture and animal feeds; animal health; extension services; livestock research and training services and value addition of livestock products; of importance is the need to enhance provision of extension services for commercialization of livestock farming. Vaccine procurement and vaccination against priority diseases are key investment areas within animal health. Priority diseases include PPR, Contagious Caprine Pleuropneumonia (CCPP) and Sheep and Goat pox.

- **Revised National Livestock Policy 2006**

This policy recognizes the contribution of small ruminants to food security, improved nutrition and increased incomes. As a result, it promises to support and strengthen among other things technical support services, infrastructures, promote investments in production of veterinary vaccines and organization of small ruminants value chain actors into interest groups and associations to promote development of the industry. The policy also advocates for provision of veterinary services that comply with the World Organisation for Animal Health (WOAH, founded as OIE) standards and guidelines for international animal disease control and trade. Additionally, PPR is categorised among trans-boundary animal diseases (TADs) whose advocated global framework for effective control is public intervention (public good provision), international cooperation

and a disaster management approach. Furthermore, the NLP advocates that control of TADs like PPR and other diseases of economic importance to be the responsibility of government. Other legal frameworks relevant to PPR control includes The Land Act No. 4 of 1999; The Village Land Act No. 5 of 1999; Food, Drugs and Cosmetic Act No. 1 of 2003; The Veterinary Act No. 16 of 2003 and Animal Diseases Act No. 17 of 2003.

III.3B Guiding Principles/approaches/success factors

The underlying principles guiding this strategy include, among others:

i) **Disease knowledge understood and operational tools are in place**: The approaches used for controlling PPR should be based on the best available epidemiological knowledge (derived from learning and research activities) and an optimal preparedness to prevent further spread of the disease.

ii) **Eco/episystem approach:** Given the fact that small ruminants are almost everywhere and resources are always limited, an 'ecosystem control approaches' will be used. Ecosystem is as a defined geographical area/zone occupied by one or more closely related ethnic communities and their livestock and adjustment areas into which the animals are moved for pasture and or trade purposes. Livestock in the ecosystem thus constitute a continuum that is epidemiologically uniform regardless of National boundaries.

iii) **One Health Integration:** Recognizing that PPR dynamics are influenced by wildlife-livestock interactions, this strategy commits to joint surveillance, coordinated response planning, and multi-sectoral governance (MLF, MNRT, TAWIRI, TANAPA) at designated interface zones.

iv) **Cross-border coordination**: Lessons learnt and best practices from the eradication of rinderpest that includes regional and ecosystems approach will be used during the control of PPR. Considering the transboundary nature of PPR, liaison and linkages with member states in the region will be very important in the management of the disease. This includes: cross-border MoUs, hosting of regular cross-border meetings, joint, coordinate and harmonized surveillance and disease control plans(for details sect III.6)

v) **Promoting small ruminants value chain actors-centred, value chain disease risk reduction approach**. This is the hallmark of PPR control since the disease is usually spread by behaviour and practices of the value chain actors. Value chain analysis and trade network risk assessment will enable identification of high risk nodes, risk pathways, behaviours and risky practices

along the value chain that need to be tackled to through risk-based approaches including extension, vaccination, communication and regulatory interventions.The approaches will be livelihood-centered and also tailored to take cognizance of the new national functional devolution dispensation.

vi) **Risk based vaccination:** Given the mobility of small ruminants, vastness of the country and limited resources i.e. vaccine available, risk based vaccination targeting 'hot spot or risk areas' properly informed by surveillance data will be used to guide control and eradication efforts. They will comprise of a series of stages targeting defined geographic areas, ecosystems or farming systems, giving priority to the most affected flocks or those at high risk or constituting important risks for the spread of the disease within and outside the country. To ensure the impact of vaccination, a robust post vaccination evaluation will be deployed to guide disease trend/sero-conversion but also support the development of dossier- eradication certificate.

vii) **Collaboration, coordination, management, Partnership and stakeholder engagement**: Forging strategic partnerships with relevant stakeholders, institutions, organizations to leverage expertise, political support and resources for collective impact is critical. The success of the National PPR control and eradication programme requires the establishment of functional coordination and networking mechanisms at national, regional, continental and global levels. In light of the devolved system, the national strategy will contribute to the overall objective by providing robust LGAs-specific technical options for prevention and control of PPR and other small ruminants diseases; building the capacity to implement and maintain these technical options and supplying operational and logistical support to ensure that the technical options can be implemented in ways that are sustainable, technically sound and socially equitable.

III.4. Outcomes and objectives

The broad outcomes and objectives of this strategy is to eradicate PPR and other priority SR disease by 2030 and therefore contribute to the achievement of the SDGs through improved livelihoods, food and nutritional security, well-being and resilience of livestock-dependent communities, while protecting biodiversity and strengthening veterinary services.

Intermediate outcomes:

i. PPR eradication by 2030 achieved, and effects of other important infectious diseases of small ruminants reduced
ii. Enhanced access of all stakeholders, including women and the rural poor, to livestock and livestock product markets.
iii. Enhanced access to animal health value chain markets, including the strengthening of public-private community partnerships.
iv. Enhanced coordination and delivery of animal health programmes within the context of human, animal and environmental health.

III.5. Components and activities (including timeline and milestones towards dossier submission)

The aim of this strategy is to provide a framework to eradicate PPR and reduce the incidence of other SR diseases in Tanzania. Key result areas and strategies to achieve the main objectives are indicated below. Detailed sets of activities including means of verification and basic assumption are further detailed in the Log frame **Annex 7.**

Key results area (1): **PPR and SR diseases controlled**

Strategies:

1. Pre-vaccination zero-monitoring
2. Management of PPR, CCPP, sheep and goat pox, through vaccinations and appropriate treatments.
3. Animal and products movement managed
4. The role of wildlife in the PPR dynamics established
5. Capacity building of field surveillance and laboratory diagnostics strengthened
6. Effective communication strategy to assure stakeholder participation and advocacy pathways developed
7. Post vaccination evaluation to assess the effectiveness of the vaccinations conducted
8. Prevent incursions and maintain freedom in the free areas, through sanitary measures and surveillance
9. Animal health service delivery systems and make use of innovative technologies for disease detection and control improved
10. Revise the risk maps and the target of control interventions, focusing on eradication.
11. Review of preparedness and contingency plans
12. Operationalizing wildlife-livestock interface management: This includes the establishment of sentinel sites, validation of non-invasive surveillance techniques for wildlife, and development of joint outbreak response protocols.

Key results area (2): **PPR eradicated**

Strategies:

1. Enhancing disease surveillance and early detection
2. Outbreak response and tracing
3. Immediate control measures

Key results area (3): Post eradication monitoring strengthened

Strategies:

1. Post-outbreak surveillance (zero-monitoring**)**
2. Review of the impact of control measures (vaccination, bio-security)
3. Review of preparedness and contingency plans
4. Application for endorsement of National PPR control programme by the WOAH
5. Coordination and management enhanced

Key results area (4): Coordination and management enhanced

Strategies:

1. Foster and develop protocol and coordination mechanism between the PPPs
2. capacitate epi-units, zonal offices, labs, vehicles, cold chain and support staff development

Key results area (5): PPR eradicated and free status verified by WOAH

Strategies:

1. Surveillance (clinical and serology) activities (random surveys for proof of presence or absence of PPR).
2. Generate the data, develop dossier required to make application of PPR freedom to WOAH (OIE)
3. Participate and share results of PCP activities at national and regional level, e.g. Regional Roadmap meeting
4. Stakeholders consultations including leaders at different levels
5. Consolidate PPR like materials
6. Commemoration of eradication

III.6. Cross-border harmonisation and coordination

Paste des Petites Ruminants (PPR) is a notifiable and a transboundary animal disease that has the potential for rapid spread and serious socio-economic impacts.

Ethnic groups that live on these sides of the borders maintain cross-border social ties which commonly involve exchange of livestock and products. There are traditional

livestock movements aiming at exploiting temporal and spatial distribution of range resources within the ecosystem along the borders. Other practices include illegal movement of livestock in search of pasture and water, animal health services as well as a result of cattle rustling and civil strife. Moreover, Tanzania and some of the border countries have rich wildlife resources creating to and off seasonal migration of animals. These wildlife also play a significant role in the epidemiology of some of the TADs in the area. Strengthening of border and import controls and reinforcing Quarantine/ holding ground will be used as a first line of defense against the disease spread. Previous best practice on RP eradication that involved liaison and establishing linkages with neighboring countries will be adopted and promoted. Activities to be given priorities includes developing and strengthening existing cross-border MoUs, initiating and hosting of regular cross-border meetings, joint, coordinate and harmonized surveillance, joint simulation exercises, sharing disease intelligences and disease control plans.

III.7 Partnership in the NSP implementation

The role of Government is to create a conducive environment to attract investments in the livestock sector. Public Private Partnership (PPP) is being encouraged in livestock sector development. Currently and previously, private sector has been working hand in hand with the government on control of PPR and other TADs. The observed **opportunitie**s for both **public** and **private sectors** to improve service delivery include: a devolved system of government with possibilities of better resource allocations and expansion of services; the enormous demand for services in the country; growing human population with concomitant demand for animal products; international standards and requirements for trade in livestock and livestock products provide an opportunity to improve national animal health, welfare and food safety standards; the availability of markets for livestock and livestock products within and outside the country; the presence of relevant regional, continental and international institutions for collaboration and technical assistance–EAC, AU-IBAR, ILRI, GALVmed, WOAH, FAO etc. PPR Vaccine Value Chain (PPR VVC)-from production, purchasing, distribution, delivery, vaccination and post-vaccination monitoring and evaluation - would greatly improve vaccine accessibility for farmers and greater market stability. Such relationship will be fostered and promoted during the implementation of this plan. The end desire is to facilitate accessibility of vaccine and timely services to livestock keepers. The list of partners/stakeholders, their roles and responsibilities are detailed in **Annex 5**. Comprehensive PPP framework to attract private service delivery in the veterinary domain is shown in **Annex 8**.

IV. RISK MITIGATION

IVa. Success Factors

Successful implementation of the strategy will require (i) country ownership and political commitment to its objectives (ii) co-operation and collaboration of Partners and

stakeholders (iii) enhanced engagement of government institutions with private sector organizations in setting national PPR control agenda and planning for implementation of agreed activities (iv) institutionalized structure for PPR control coordination in LGAs and the Regional bodies (v) a robust monitoring, evaluation and learning system to improve performance assessment (vi) interactive disease information management system (vii) climate change adaptation in practices and processes that contribute to mitigation of PPR risks (viii) uptake of research, innovation, technology and emerging concepts relevant to PPR control, and (ix) gender and youth inclusivity in approaches to implementation of activities. These should also include the following: (x) Effective Community engagement and awareness creation, (xi) Strong disease surveillance for early detection, reponse, prevention and control, (xii) Improved animal identification, registration and traceability system, (xiii) Advocacy on adaptation of proper biosecurity measures, (xiv)Adequate government support and commitment in strengthening human and institutional capacity to deliver animal health services, (xv) Joint regional PPR control and eradication collaboration with neighboring countries MoU, and (xvi) Multispecies national vaccination campaign or programmed that promotes stakeholder or livestock keepers to accept implementation of activities.

IVb. Risks

Possible risks to implementation of the strategy include:

a. Inadequate commitment by government to prioritize and act on gaps and weaknesses that require correction through changes in legislation and decisively act on the multiplicity of laws and institutions with mandates on veterinary service provision
b. Limited commitment of government to strengthen human and institutional capacity to deliver animal health services
c. Heavy reliance on donor funding for NSP activities
d. Inadequate interest of key stakeholders in supporting implementation of activities of the strategy
e. Weak resilience of production systems to shocks of climate change.
f. Limited budget to support implementation of NSP activities
g. Inadequate understanding or information of disease situation amongst stakeholders
h. Persistent of PPR virus reservoirs along the livestock wildlife interface areas and unregulated pastoralist mobility
i. High PPR diagnostic costs which are likely not to be affordable by stakeholders
j. Vaccine quality and unreliable cold chain maintenance system

k. Natural disasters and calamities such as flooding, drought and refugee movements
l. Political instability and insecurity.

IVc: Risk Mitigation Measures

The following are the identified and suggested mitigation measures among others:

i. Legal Framework: Strengthening Veterinary services through enacting and enforcing a supportive legal framework for disease control
ii. Effective Communication, training and information sharing for stakeholders' awareness about PPR
iii. Establishment of a well-structured PPR prevention and control Coordination to ensure clearly defined responsibilities and cohesive or holistic approach rather than fragmented efforts by individual stakeholders or groups.
iv. Adequate funding and budget allocation for PPR research activities, prevention and control programs such as national vaccination campaigns for livestock.
v. Project institutionalization and ownership by strengthening human and institutional capacity to deliver animal health services.
vi. Investing or promoting research and innovation on technology and emerging concepts relevant to PPR control.
vii. Strengthening and maintenance of robust diagnostics, surveillance and early warning system for response and informed decision making.
viii. Continued stakeholders' involvement or engagement for coordinated national, regional and international to manage transboundary nature of PPR such as cross-border joint efforts to control the disease
ix. Stakeholders or livestock keepers' education and extension on various livestock keeping technologies and methods to build resilience to the ongoing climate change and global warming

V. MONITORING AND EVALUATION

The objective of M&E is to build a harmonised and coordinated framework for supervision, monitoring and evaluation in order to generate data for decision making, programme development, resource allocation and management at all levels and among all stakeholders.

Progress towards the attainment of the targets set out in this national strategy plan will be evaluated quarterly, annually, at midterm and end term covering all projected phases. Data will be collected through periodic progress reports, annual reviews/assessments and reporting, after action reviews, exercises and joint external evaluations and other relevant assessments like the PMAT, as well as periodic supervision. Building sustainable capacity at all levels-national, local governments, the

private sector and communities to carry out supervision, monitoring and evaluation of key strategy result area is important. For some technical areas, there will be a need to reconceptualise and re-organise the managerial and support mechanisms and structures at national, subnational and local levels, including defining a clear supervisory mechanism, roles of the various decentralized levels and the community.

Moreover there will be a need to increase the training, recruitment and deployment of the required human resources at all levels. In addition, it will be critical to ensure the utilization and dissemination of information to all stakeholders for purposes of improving management, sharing experiences, upholding transparency and accountability

(a) Advisory committee

Based on suggestion made during Regional meetings and endorsed by CVOs, country plan implementation will be externally monitored by Regional Advisory Group (RAG) and Regional Control Coordination Committee of PPR and other small ruminant diseases (PPR/SRDs-CCC) to be established. The terms of reference for the two committees will be as follows:

(**i) RAG:**

- To facilitate self and external assessment of the PPR stages at the roadmap meeting to be conducted from time to time
- To guide PPR training and capacity development activities to support regional and national strategies
- To provide advice on the status of PPR assessments including the analysis of Critical Competences
- To support technical review and implementation of the national strategic plan
- To advise on issues or factors preventing effective progress of the PPR roadmap
- To support countries in the preparation of applications to WOAH for endorsement of their national control strategy and their dossier for official country freedom recognition

(ii) **Regional Control Coordination Committee of PPR and other small ruminant diseases (PPR/SRDs-CCC)**

- To create understanding on the existing status and national and regional activities on PPR CCC and other SRD
- To verify gaps and challenges in the control of PPR and other SRD
- Review and endorse the regional framework and national strategies for progressive control of PPR and other Small Ruminant Diseases and other relevant recommendations
- Ensure harmonization of PPR/SRDs control programmes in the region
- To coordinate and exchange information on good practices and lessons to avoid duplication of efforts and improve complementarities on the control of PPR and other SRDs in the region;
- Undertake the role of advocacy for buy-in and timely actions of the control and eradication programs

(b) Annual assessments and reporting

The main purpose of completing the (PMAT) Monitoring tool questionnaire will be to fulfil the obligation of Member States and the PPR global eradication Secretariat to report annually to the World Animal Health Assembly and FAO summit on the implementation of national strategy.

(c) After Action Reviews

It is imperative to complement the annual reporting tool by reviewing a real-life experience of a PPR event, which can offer an opportunity to learn lessons and identify opportunities for improvement that were not recognised through the annual reporting tool regarding the functionality of the core key result area. This plan will support after action review using the methodology proposed by other organisation i.e. FAO

(d) Other assessments

Additionally, other animal assessments will also be used to assess the implementation of the plan and this include;

- Performance for Veterinary Services reports(WOAH Gap, Follow up, Laboratory and Legal)
- Livestock sector analysis

(e) Periodic supervision

Periodic supervision and routine monitoring will be done to ensure the activities are implemented according to target based on PMAT tools. These activities will be integrated in to the routine quarterly supervision schedules within respective sectors (Livestock and Wildlife). The supervision will be carried at all levels; starting from the National level i.e. Ministry supervising staff at regional levels including staff at Local Government Authorities; and Local Government Authorities staff supervising those working beneath them

(f) NSP M&E Operationalisation

Nationally, to operationalise this document, the following monitoring and evaluation guide has been prepared and aligned with the Logical Framework in Annex 7 and requirements and structure of the PPR GEP Blueprint (2022–2030). However, its specific implementation is subject to field realities and modification that shall be entertained within the overall NSP implementation:

(1) PRACTICAL M&E LAYOUT FOR TANZANIA PPR NSP (2024–2030)

List of Acronyms

1. Purpose
2. Structure and Responsibilities
3. Results Framework
4. Coordination and Management
5. Monitoring Tools
6. Performance Grading System
7. Recommended Digital Ecosystem Support

a. PURPOSE OF THE M&E SYSTEM

To provide a clear, coordinated supervision and decision-support structure that enables Tanzania to:

1. Track progress toward PPR eradication by 2030.
2. Assess performance of vaccination, surveillance, and control systems.
3. Provide real-time data for adaptive management, consistent with the PPR GEP Blueprint.
4. Generate evidence required for WOAH dossier (2028–2030). To make the United Republic of Tanzania move from stage 3 to 4

b. M&E STRUCTURE AND RESPONSIBILITIES

Level	Core Responsibilities	Frequency
National (DVS, TVLA)	Strategy oversight; PMAT scoring; national dashboards; dossier preparation	Quarterly, Annual
Zonal Veterinary Centres (ZVCs) + TVLA	Data cleaning, validation; active surveillance follow-up; laboratory coordination	Monthly
LGAs & Ward Livestock Officers	Data collection; movement control records; vaccination reports; hotspot detection	Weekly
Community level (Paravets =CAHWs, producers)	Reporting via mobile tools (EMAi and UTAMBUZI apps, community committees(wafugaji)	Continuous

c. ACTIVITIES TO OPERATIONALISE THE M&E RESULTS FRAMEWORK (See Annex 7)

F**ield M&E framework**, keeping the structure of the logical framework but making it operational.

RESULT AREA 1: PPR & SRDs CONTROLLED (2024–2027)

1.1 Pre-vaccination Sero-Monitoring

Indicator	Target	Data Source	Frequency
Proportion of risk-based surveys completed in priority ecosystems	8 surveys per year	ZVC survey reports, TVLA lab results	Annal
% of samples processed within 14 days	≥90%	Lab processing logbooks	Monthly
Updated hotspot & risk maps	1 per ecosystem annually	Risk assessment reports	Annual

Practical Tools to be Used

- Digi-Vet mobile data capture (EMAi and UTAMBUZI apps)
- TVLA electronic sample tracking system
- GIS(geographical information system) hotspot mapping (MLF Epidemiology Unit)

1.2 Vaccination & Treatment Programme

Indicator	Target	Data Source	Frequency
PPR vaccination coverage in high-risk LGAs	≥80% of target flock	Vaccination registers, LGA reports	Bi-annual
Number of doses delivered per year	18M doses PPR/SGP/CCPP	Delivery notes, TVI/HBAL dispatch forms	Annual
Functional PPP vaccination partnerships	≥10 active partnerships	MoUs, DVS reports	Annual

Practical Measures

- Introduce standardized “vaccination micro-plan” used by LGAs
- Combine PPR with CCPP/sheep and goat pox disease sensitization for higher uptake
- Use community committees for mobilisation and defaulter tracing/ community engagement

1.3 Animal Movement Management

Indicator	Target	Data Source	Frequency
Veterinary border posts and check-points functional (Trained station officers)	≥2,400 facilities	DVS infrastructure audit	Annual
By-laws on movement control operationalized	100% LGAs	Copies of by-laws, enforcement records	Annual
Proportion of seized illegal movement cases reported	≥60%	Inspector records	Quarterly

1.4 Wildlife Interface Management

Indicator	Target	Data Source	Frequency
Surveillance missions in wildlife–livestock interfaces	5 missions/yr	TAWIRI/TANAPA/MLF reports	Annual
Samples collected	400 samples	TVLA/TAWIRI lab reports	Annual
Joint intervention plan developed	1 national document	Interministerial meeting minutes	2025

1.5 Capacity Building (Lab & Surveillance)

Indicator	Target	Source	Frequency
Labs refurbished & equipped	13 TVLA labs	TVLA procurement reports	Annual
Staff trained in CPD, outbreak investigation	15 per yr	Training reports	Annual
% of samples reaching lab within 48 hrs	≥70%	Transport logbooks	Quarterly

1.6 Communication & Community Engagement

Indicator	Target	Source	Frequency
IEC (Information Education and Communication) materials distributed	200,000	Dispatch notes	Annual
Radio/TV messages aired	10,000 radio spots	Media contracts	Quarterly
Community reporting committees established	500	Community committee registers	Annual

RESULT AREA 2: PPR ERADICATION (2027–2028)

Indicator	Target	Verification	Frequency
Number of confirmed outbreaks after 2027	Zero	Surveillance reports	Monthly
% of LGAs/ZVC achieving “no new clinical cases for 3 consecutive years”	100% targeted LGAs	PMAT & surveillance	Annual
Rapid detection-to-response time	<72 hours	Outbreak investigation forms	Per outbreak

RESULT AREA 3: POST-ERADICATION VERIFICATION (2028–2030)

Indicator	Target	Verification	Frequency
Post-vaccination sero-monitoring completed	All zones	Lab results	Annual
Random sero-surveys for proof of absence completed	All ecosystems	Survey & lab reports	Annual
WOAH dossier drafted	By 2029	MLF dossier drafts	Annual
Official WOAH submission	By Q2 2030	Submission confirmation	One-time

RESULT AREA 4: COORDINATION & MANAGEMENT

Indicator	Target	Source	Frequency
Regional (SADC, EACetc) & Country PPR committees functional	≥25	Meeting minutes	Quarterly
PMAT (PPR Monitoring Tools) assessment score improves annually	≥10% improvement/yr	PMAT tool	Annual
M&E dashboards operational	National + 8 ZVCs	MLF ICT records	Quarterly

RESULT AREA 5: GLOBAL PPR FREE STATUS (2030)

Indicator	Target	Source
National verification completed	100%	MLF verification reports
WOAH recognizes Tanzania free from PPR	Achieved by 2031	WOAH resolution
Cessation of all field vaccination	Completed by 2028	DVS directives

d. DATA FLOWS AND REPORTING CHANNELS

I. Weekly Reporting (LGA → Region → ZVC → National)

- Outbreak alerts
- Vaccination progress reports
- Movement violations

II. Monthly Reporting (ZVC, TVLA, TAWIRI, SUA & DVS)

- Lab reporting (TVLA, TAWIRI, SUA)
- Sample tracking updates
- Data quality reviews

III. Quarterly Reporting (National PPR Secretariat)

- PMAT-based progress
- Implementation bottlenecks
- Funding gap updates
- Cross-border events

IV. Annual Review & External Assessments

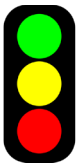
- Joint annual review (MLF + partners (FAO, AU-IBAR)
- RAG (Regional Advisory Group) review (as required by GEP)
- After-Action Reviews (AAR) for outbreaks

e. MONITORING TOOLS AND TEMPLATES (Recommended)

1. PPR Vaccination Microplan Template
2. Daily Vaccination Register
3. Digital Outbreak Reporting Form (DHIS2/VetGIS)
4. Risk Map Update Tool (GIS)= (QGIS)
5. PMAT Annual Assessment Template
6. Cross-Border Joint Surveillance Template

f. PERFORMANCE GRADING SYSTEM (Simple, Practical)

A traffic-light system is recommended:

Colour	Colour Display	Meaning	Action
Green		On track	Maintain, expand
Yellow		Moderate delays	Apply corrective measures
Red		Off-track	Immediate action & re-planning

g. RECOMMENDED DIGITAL ECOSYSTEM SUPPORT (Aligned with GEP BP)

System	Use
Digi-Vet Mobile (EMAi and UTAMBUZI apps)	Real-time vaccination & surveillance data
TVLA LIMS	Sample tracking & lab results
Epi-dashboard	Zonal + national automated dashboards
Community WhatsApp reporting hubs	Field-level rapid alerts

h. KEY VALIDATION MESSAGES TO PRESENT TO THE STEERING COMMITTEE

1. The M&E structure is aligned with national systems (ZVCs, TVLA, LGAs).
2. The layout follows the GEP Blueprint requirement for elimination by 2027 and proof of freedom by 2030.
3. The indicators are practical, measurable, and feasible using existing human resources.
4. Digital tools are essential for real-time monitoring and WOAH dossier preparation.
5. Community engagement and PPP approaches must be embedded into monitoring—not separate.

VI. BUDGET

Part 1: Baseline NSP Activities (Non-Wildlife) – Estimated $10,000,000

This baseline covers the core activities across the 6-year implementation period (2025-2030). The budget is distributed across the five Key Results Areas defined in Annex 7 of the NSP document.

KRA 1: PPR and SRD Controlled (Budget: $5,500,000 – 55% of baseline)

This KRA encompasses the core disease control activities, representing the largest share of investment.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
1.1 Pre-vaccination sero-monitoring	8 risk-based surveys annually (48 total). Includes sample collection kits, laboratory reagents (cELISA), transportation, and per diems for field teams.	800,000	2,060,000,000	Funding for reagents is sustained; cold chain functions.
1.2 Management of PPR, CCPP, SGP through vaccinations	Procurement of **18 million doses** of PPR vaccine over 6 years (@ $0.25/dose). Includes vaccines for CCPP and SGP (estimated 6 million doses combined @ $0.20/dose). Covers cold chain logistics and training for vaccinators.	5,700,000	14,677,500,000	**Note:** This is the single largest cost. At 18M PPR doses, this alone is $4.5M. Combined with other SR vaccines, the total exceeds the KRA allocation. A realistic budget requires scaling this to a feasible 12M PPR doses (~$3M) over 6 years, aligning with the available $5.5M for the entire KRA.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
1.3 Animal and products movement managed	Training 300 veterinary inspectors; establishment and operationalization of 2,400 checkpoints/holding grounds (this is a long-term infrastructure goal). Realistic budget for training, basic equipment (stencils, logbooks), and community sensitization.	300,000	772,500,000	Infrastructure costs are assumed to be covered by LGAs through development budgets.
1.4 Role of wildlife in PPR dynamics	**(Baseline activity – limited)** Original logframe mentions 5 active surveys (R1.4.1) and sero-analysis of 4000 samples (R1.4.3). Minimal budget for field missions and sample testing.	100,000	257,500,000	This is grossly underfunded in the baseline. The new wildlife activities will substantially augment this.
1.5 Capacity building: field surveillance & lab diagnostics	Refurbishment of 8 laboratories, procurement of basic lab equipment (centrifuges, freezers), training for 15 staff on outbreak investigation, and sample shipping.	800,000	2,060,000,000	Government counterpart funding is needed for major lab refurbishments.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
1.6 Communication & community engagement	Production of 200,000 IEC materials (pamphlets, brochures), 10,000 radio spots, 5,000 community meetings, formation of 500 community disease reporting committees.	500,000	1,287,500,000	Local radio stations are available and affordable.
1.7 Post-vaccination sero-monitoring	Field surveys and lab analysis to assess sero-conversion post-vaccination (8 surveys annually).	500,000	1,287,500,000	Farmers are willing to allow post-vaccination blood sampling.
1.8 Prevent incursions & maintain freedom	Passive surveillance, syndromic inspections at markets, and support for private sector involvement in vaccination (PPP).	250,000	643,750,000	Private sector partners (e.g., HBAL) are willing to engage.
1.9 Improve animal health service delivery	Rapid response team training (30 teams); applied research support for DIVA tests and socio-economic impact studies.	250,000	643,750,000	Research institutions (SUA, NM-AIST) have capacity to conduct applied research.
1.10 Revise risk maps & control targets	Data analysis and GIS mapping workshops (biannual).	100,000	257,500,000	Epidemiological data is available and of good quality.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
1.11 Review preparedness & contingency plans	Review and update contingency plan; conduct 2 national and 8 zonal field simulation exercises.	200,000	515,000,000	Logistics for field simulations are complex but manageable.
KRA 1 Total		**5,500,000**	14,162,500,000	

KRA 2: PPR Eradicated (Budget: $1,000,000 – 10% of baseline)

This KRA focuses on the intensification phase (2027-2028) where active case finding and response are paramount.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
2.1 Enhancing disease surveillance and early detection	Intensive passive surveillance reporting; 120 Participatory Disease Surveillance (PDS) exercises; establishment and monitoring of 8 sentinel herds (1 per zone).	500,000	1,287,500,000	Communities are willing to engage in PDS and host sentinel herds.
2.2 Outbreak response and tracing	Rapid deployment of investigation teams for all suspected outbreaks (target: 100% investigated). Includes	300,000	772,500,000	Funds for contingency/emergency response are available and accessible.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
	transport, per diems, and tracing costs.			
2.3 Immediate control measures	Enforcement of quarantine; availability of emergency vaccine stocks (reserve of 500,000 doses maintained).	200,000	515,000,000	Legal framework is strong enough to support enforcement.
KRA 2 Total		**1,000,000**	2,575,000,000	

KRA 3: Post-Eradication Monitoring Strengthened (Budget: $500,000 – 5% of baseline)

This KRA covers the verification phase (2028-2030).

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
3.1 Post-outbreak surveillance	Follow-up sero-surveillance after any confirmed outbreak (target: 100% coverage).	150,000	386,250,000	No major outbreaks occur, reducing the need for this.
3.2 Review impact of control measures	Impact assessments conducted post-vaccination campaigns.	100,000	257,500,000	Survey methodologies are robust and validated.
3.3 Awareness campaigns	Continued field days and meetings to sustain awareness even as cases decline.	50,000	128,750,000	Farmers maintain interest in disease prevention.
3.4 Review	Final review and	50,000	128,750,000	Lessons learned

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
preparedness & contingency plans	update of plans based on eradication experience.			are well-documented.
3.5 Application for WOAH endorsement	Development of the final dossier for WOAH to endorse freedom from PPR.	150,000	386,250,000	All required data (surveillance, vaccination, seromonitoring) is complete and validated.
KRA 3 Total		**500,000**	1,287,500,000	

KRA 4: Coordination and Management Enhanced (Budget: $1,500,000 – 15% of baseline)

This KRA covers the enabling environment and institutional support.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
4.1 Foster PPP coordination mechanisms	Quarterly coordination meetings; development of formal PPP protocols and MoUs with private sector (e.g., HBAL, TVI, TAHOA).	200,000	515,000,000	Private sector sees a business case for participation.
4.2 Capacitate epi-units, zonal offices, labs, vehicles, cold chain, and staff	Procurement of 8 vehicles (one per zone) (@ $40,000 each), motorcycles for district officers, computers, printers, and cold chain equipment (freezers, cool boxes). Support	1,300,000	3,347,500,000	**Note:** This is the primary investment in infrastructure. Vehicles are essential for field operations. Cold chain equipment ensures vaccine viability.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSHS)	Key Assumptions
	for staff development through short courses.			
KRA 4 Total		**1,500,000**	3,862,500,000	

KRA 5: PPR Eradicated and Free Status Verified by WOAH (Budget: $500,000 – 5% of baseline)

This KRA covers the final stage of dossier preparation and the "celebration" of eradication.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSH)	Key Assumptions
5.1 Surveillance activities for proof of absence	Conducting 8 national random sero-surveys (1 per zone) to demonstrate absence of viral circulation.	250,000	643,750,000	A robust sampling frame is available.
5.2 Generate data, develop dossier	Consolidation of all data (surveillance, vaccination, lab results) into a comprehensive dossier for WOAH.	100,000	257,500,000	Data management systems (EMA-i, VetGIS) are functional and have captured all required information.
5.3 Participate and share results	Attendance at regional and international PPR roadmap meetings (e.g., GF-TADs).	50,000	128,750,000	Travel funds are available annually.

Activity (from Annex 7 Logframe)	Description / Scope	Estimated Cost (USD)	Estimated Cost (TSH)	Key Assumptions
5.4-5.8 Consolidation & commemoration	Stakeholder consultations, consolidation of PPR materials, and a final eradication commemoration event.	100,000	257,500,000	Government commitment to celebrate the achievement.
KRA 5 Total		**500,000**	1,287,500,000	

Part 2: Wildlife-Livestock Interface Activities – $1,875,000

These activities can be best integrated as a new sub-component under KRA 1 (PPR and SRD Controlled), because they are fundamentally about understanding and managing disease dynamics at the wildlife-livestock interface. Integrating them into KRA 1 reinforces that this is core to control efforts. Alternatively, they could form a new KRA 6: One Health Interface Management.

Part 2: Proposed Budget for Activities Total: $1,875,000

Recommended Activity	Where this reflect in the NSP	Estimated Cost (USD)	Estimated cost (TSHS)	Justification for Cost & Notes
1. Establish wildlife-livestock interface sentinel sites	**Annex 7, R1.4.1** (The role of wildlife) & **Section VI (Budget)**	**350,000**	**901,250,000**	**Costs:** Establishes 4 sentinel sites (Serengeti, Ruaha, Selous, Katavi) for 3 years. Includes training for 20 site coordinators, basic field equipment (GPS, binoculars, sampling kits), and operational costs for quarterly site visits.

Recommended Activity	Where this reflect in the NSP	Estimated Cost (USD)	Estimated cost (TSHS)	Justification for Cost & Notes
2. Validate and deploy non-invasive sampling techniques for wildlife PPR surveillance	**Annex 7, R1.4.3** & **R1.5.6** (Validation of tests) & **Section VI (Budget)**	**180,000**	**463,500,000**	**Costs:** A 2-year project with TAWIRI to validate fecal and environmental sampling methods. Includes lab consumables, reagents, training for 10 lab technicians, and technical support from an international reference lab (e.g., CIRAD).
3. Develop joint livestock-wildlife PPR outbreak response protocols	**Annex 7, R1.4.4** (Design intervention plans) & **R1.11.1** (Review contingency plans) & **Section VI**	**75,000**	**193,125,000**	**Costs:** Two multi-stakeholder workshops (MLF, MNRT, TAWIRI, TANAPA) over 6 months to draft, review, and validate protocols. Includes facilitator fees, venue, and printing of final documents.
4. Train wildlife rangers and community scouts as PPR sentinel reporters	**Annex 5** (List of stakeholders: expand roles for Hunters/Rangers) & **Annex 7, R1.2.2** & **Section VI**	**160,000**	**412,000,000**	**Costs:** Training of 500 rangers and scouts across 10 high-interface districts. Covers training modules, materials, per diems, and the provision of basic reporting tools (smartphones with reporting app, power banks) and an incentive scheme.

Recommended Activity	Where this reflect in the NSP	Estimated Cost (USD)	Estimated cost (TSHS)	Justification for Cost & Notes
5. Establish multi-sectoral wildlife-livestock interface coordination committee	**Annex 5** (Add new row) & **Annex 7, R4.1** (Foster coordination) & **Section VI**	**90,000**	**231,750,000**	**Costs:** A 3-year cost covering the establishment and operationalization of one national and 5 ecosystem-level committees. Includes per diems for 4 meetings/year at national level and 2 meetings/year at each ecosystem level.
6. Conduct PPR serosurvey in high-risk wildlife species	**Annex 7, R1.4.3** (Sero-analysis) & **Section VI (Budget)**	**500,000**	**1,287,500,000**	**Costs:** A comprehensive 2-year serosurvey across 4 major ecosystems. Includes helicopter/vehicle costs for wildlife capture/darting, specialized veterinary equipment, high-throughput serology testing for 2,000-3,000 samples, and data analysis.
7. Integrate wildlife considerations into PPR vaccination campaign planning	**Annex 7, R1.2.12** (Carry out vaccination) & **Section VI (Budget)**	**50,000**	**128,750,000**	**Costs:** A "buffer zone" mapping and micro-planning exercise for 10 LGAs bordering protected areas. Funds consultant to develop a GIS-based vaccination planning tool that incorporates wildlife

Recommended Activity	Where this reflect in the NSP	Estimated Cost (USD)	Estimated cost (TSHS)	Justification for Cost & Notes
				interface data.
8. Develop and implement a wildlife health information system linked to existing livestock surveillance	**Annex 7, R1.5.8** & **R1.5.10** (Strengthen ICT facilities) & **Section VI**	**220,000**	**566,500,000**	**Costs:** A 3-year phased project. Includes software customization, server setup at TAWIRI, integration with DVS's existing system (DHIS2/VetGIS), training for 30 data entry staff, and system maintenance.
9. Conduct joint simulation exercise for PPR outbreak at wildlife-livestock interface	**Annex 7, R1.11.2** (Simulation of emergency preparedness) & **Section VI (Budget)**	**150,000**	**386,250,000**	**Costs:** One large-scale simulation in the Ngorongoro or Katavi ecosystem. Includes mobilization of 50+ participants from multiple sectors, logistical support, materials, a detailed after-action review, and a final report.
10. Develop policy brief on wildlife health surveillance investment for Tanzania	**Annex 9** (Resource mobilization strategy) & **Section VII** (Resource Mobilisation) & **Section VI**	**45,000**	**115,875,000**	**Costs:** A short-term consultancy (4 months) to draft a high-quality policy brief targeting the Ministry of Finance. Includes stakeholder consultations, data synthesis, graphic design, printing, and a dissemination workshop.

Recommended Activity	Where this reflect in the NSP	Estimated Cost (USD)	Estimated cost (TSHS)	Justification for Cost & Notes
11. Participate in FAO wildlife-livestock interface working group	**Section III.7** (Partnership in the NSP implementation) & **Section VI (Budget)**	**30,000**	**77,250,000**	**Costs:** A 3-year budget to support travel, per diems, and participation of 2-3 experts (from DVS and TAWIRI) in 2 regional/international meetings per year.
12. Align wildlife surveillance protocols with emerging FAO manual	**Annex 6** (Risk based surveillance plan) & **Section VI (Budget)**	**25,000**	**64,375,000**	**Costs:** A one-time cost for a consultant to review the final FAO manual and align Tanzania's existing wildlife surveillance protocols (SOPs) accordingly. Includes a final validation workshop.

The 12 proposed activities for the wildlife are not new, standalone projects but are essential details incorporated into the existing NSP framework to fill missing details and ensure comprehensive One Health implementation. They fill critical gaps in the Situation Analysis (Section II), define specific actions within the Logical Framework (Annex 7), and substantiate the Budget (Section VI) and Resource Mobilization (Section VII) with concrete, justifiable costs. The primary insertion points are Annex 7 (Logical Framework) under Result Area 1 (R1: PPR and SRD Controlled) and Section VI (Budget).

Part 1: Baseline Budget Summary Table

Key Results Area (KRA)	Budget Allocation (USD)	Budget Allocation (TSHS	Percentage of Baseline
KRA 1: PPR and SRD Controlled	5,500,000	14,162,500,000	55%
KRA 2: PPR Eradicated	1,000,000	2,575,000,000	10%
KRA 3: Post-Eradication Monitoring Strengthened	500,000	1,287,500,000	5%
KRA 4: Coordination and Management Enhanced	1,500,000	3,862,500,000	15%
KRA 5: PPR Free Status Verified by WOAH	500,000	1,287,500,000	5%
Contingency (10%)	1,000,000	2,575,000,000	10%
Total Baseline NSP Budget	**10,000,000**	25,750,000,000	**100%**

Part 2: Budget for Activities Total: $1,875,000

Proposed Activity (from Additional Activities document)	Detailed Description / Scope (6-year plan)	Estimated Cost (USD)	Estimated Cost (TSHS)
1. Establish wildlife-livestock interface sentinel sites	Establish and maintain 4 sentinel sites (Serengeti, Ruaha, Selous, Katavi). Includes training 20 site coordinators, providing field equipment, and funding quarterly monitoring missions.	350,000	901,250,000
2. Validate and deploy non-invasive sampling techniques	A 2-year project with TAWIRI to validate fecal and environmental sampling methods. Includes lab consumables, reagents, training for 10 lab technicians, and international technical support.	180,000	463,500,000

Proposed Activity (from Additional Activities document)	Detailed Description / Scope (6-year plan)	Estimated Cost (USD)	Estimated Cost (TSHS)
3. Develop joint livestock-wildlife PPR outbreak response protocols	Two multi-stakeholder workshops (MLF, MNRT, TAWIRI, TANAPA) to draft and validate protocols. Includes facilitator fees, venue, and printing.	75,000	193,125,000
4. Train wildlife rangers and community scouts as PPR sentinel reporters	Training for 500 rangers and scouts across 10 high-interface districts. Includes training modules, materials, per diems, and provision of reporting tools (smartphones).	160,000	412,000,000
5. Establish multi-sectoral wildlife-livestock interface coordination committee	Establish 1 national and 5 ecosystem-level coordination committees. Includes per diems for 4 national meetings/year and 2 ecosystem meetings/year over 3 years.	90,000	231,750,000
6. Conduct PPR serosurvey in high-risk wildlife species	A comprehensive 2-year serosurvey across 4 ecosystems. Includes helicopter/vehicle costs for wildlife capture, specialized veterinary equipment, and high-throughput serology testing for 2,000-3,000 samples.	500,000	1,287,500,000
6. Integrate wildlife considerations into PPR vaccination campaign planning	A "buffer zone" mapping and micro-planning exercise for 10 LGAs bordering protected areas. Funds a GIS consultant to develop a vaccination planning tool.	50,000	128,750,000
8. Develop and implement a wildlife health information	A 3-year phased project. Includes software customization, server setup at TAWIRI, integration with DVS's DHIS2/VetGIS, and training	220,000	566,500,000

Proposed Activity (from Additional Activities document)	Detailed Description / Scope (6-year plan)	Estimated Cost (USD)	Estimated Cost (TSHS)
system	for 30 data entry staff.		
9. Conduct joint simulation exercise for PPR outbreak at wildlife-livestock interface	One large-scale simulation in the Ngorongoro or Katavi ecosystem. Includes mobilization of 50+ participants from multiple sectors, logistical support, and a detailed after-action review.	150,000	386,250,000
10. Develop policy brief on wildlife health surveillance investment	A short-term consultancy (4 months) to draft a policy brief targeting the Ministry of Finance. Includes stakeholder consultations, graphic design, printing, and a dissemination workshop.	45,000	115,875,000
11. Participate in FAO wildlife-livestock interface working group	Support travel, per diems, and participation of 2-3 experts (from DVS and TAWIRI) in 2 regional/international meetings per year over 3 years.	30,000	77,250,000
12. Align wildlife surveillance protocols with emerging FAO manual	A one-time consultant to review the final FAO manual and align Tanzania's existing wildlife surveillance SOPs. Includes a final validation workshop.	25,000	64,375,000
KRA 1 Wildlife Sub-Component Total		**1,875,000**	4,828,125,000

Part 3: Revised Total Final Budget

The revised budget combines the baseline NSP activities ($10,000,000) with the new wildlife-livestock interface activities ($1,875,000). A contingency line is maintained to provide flexibility for unforeseen costs, inflation, or emerging priorities.

Budget Category	Amount (USD)	Amount (TSHS)	Percentage
Baseline NSP Activities (KRAs 1-5)	10,000,000	25,750,000,000	80%
New Wildlife-Livestock Interface Activities	1,875,000	4,828,125,000	15%
Contingency (5%)	625,000	1,609,375,000	5%
Revised Total Final NSP Budget	**12,500,000**	32,187,500,000	**100%**

This integrated budget provides a comprehensive, realistic, and defensible financial framework for the full implementation of Tanzania's PPR National Strategic Plan, fully incorporating the critical wildlife-livestock interface dimension.

VII. RESOURCE MOBILISATION

The recent Cost Benefits ratio analysis indicate that in every single Tanzanian shilling invested in improving animal health, it will generate one shilling and three cents as profit (LSTP, 2022). Control of PPR is a public good that require considerable government investment in terms of both human and physical resources. Therefore, resource mobilization from all sectors to support the implementation priority PPR NSP activities is very vital. Resource mobilization focus will hinge on six pillars namely: maintaining /upholding PPR NSP into country development plans; sustainable predictable financial resources; sharing of expertise and physical resources; direct support from Development Partners, UN agencies; funding support from private sector and non-traditional source**s** and requisite capacity to mobilize and/or coordinate resource mobilization in conformity with the government budget cycle. Detailed resource mobilization strategy (NPPRRMS) is shown in **Annex** 9. The overarching goal of National PPR Resource Mobilization Strategy (NPPRRMS) is to provide a framework and guidance for the MLF, sectors (Public & Private) and animal health actors/stakeholders operating at different levels and capacities to jointly and in a well-coordinated manner mobilize and share financial, human and logistical resources to effectively and sustainably implement the NPPR SP. The strategy focuses primarily on the mobilization of resources to implement the priority PPR control activities identified in the NPPR SP by anchoring adequate efforts on domestic financing. The list of ongoing projects and potential support or funders of key PPR NSP is shown in **Annex** 9.

VIII. RISK COMMUNICATION AND COMMUNITY ENGAGEMENTS

The global and continental PPR control and eradication strategies recognize and acknowledge risk communication as one of the key component to be given high priority in order to effectively manage the disease (OIE & FAO, 2015). Risk Communication and Community Engagement (RCCE) elements are some of the key activities to be addressed in order to effectively manage PPR. Specific RCCE strategy (appended to this PPR NSP) has been developed to provide stakeholders with clear and consistent messages about the disease, debunking myths, and countering false rumors, but also increasing awareness and understanding of the disease and their expected roles. The strategy recognizes the importance of accurate information dissemination as a foundational element and relies on effective communication, behaviour change, stakeholders and community involvement to address the complex nature of PPR prevention, control, and eradication. The strategy targets various audiences, utilizing diverse communication channels to ensure broad reach. The strategy emphasizes collaboration and coordination among diverse stakeholders in order to foster partnerships with government agencies, Development partner agencies, veterinary services, research institutions, private sector actors, Non-Governmental Organizations (NGOs), and community-based organizations (CBOs), but also aiming at promoting a comprehensive and integrated approach to PPR control. Detailed are given in **Annex 10.**

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X. ANNEXES

Annex 1: Country overview-basic information

Tanzania, officially the **United Republic of Tanzania (URT)**, is a country in East Africa in the Great Lakes region and lies between 3°S and 12°S and 26°E and 41°E. It borders the Indian Ocean to the East (800km), and has a long international border of approximately 3,900 km shared with eight countries including Kenya (796 km) and Uganda (396 km) to the North, Rwanda (217 km), Burundi (451 km), the Democratic Republic of Congo (478 km) to the West, Zambia (338 km) to the South West, Malawi (475 km) and Mozambique (750 km) to the South. The total area including inland water and Zanzibar is 947,303 km^2, of which 886,040 km^2 is land and 62,050 km^2 is water (Lake, 2013). Tanzania is the 13th largest country in Africa and the 31st largest in the world. The climate varies with geographical zones: tropical on the coast where it is hot and humid (rainy season March-May); semi-temperate in the mountains with short rains November-December and long rains February – May; while it is drier in the plateau region with considerable seasonal variations in temperature. Total rainfall increases towards the north around Lake Victoria. Rainfall is well distributed throughout the year reaching its peak during the period of March through May. Such diverse climate influence widely distribution of animals and wildlife.

Administratively, Tanzania is divided into thirty one regions; twenty-six on the mainland and five in Zanzibar (three on Unguja, two on Pemba). In total, there are 185 Local Government Authorities (LGA's). Of these, 49 LGA's are urban units, which are further classified into six city councils (Dar es Salaam, Arusha, Tanga, Dodoma, Mbeya, and Mwanza), 20 municipal councils, and 23 town councils.

Since 1986, the government has undergone several reforms in sectors, including Public, Agriculture and Local government. The Public Sector reforms identify functions that will continue to be provided by the central government and those that can best be performed by other actors, such as local governments, service boards, executive agencies, NGOs and the private sectors. Sectors involved in animal health activities function at both the national and local governments. Within the devolved governance, veterinary services are managed under the Ministry of Livestock and Fisheries (MLF) at the national level and at sub-national (regional, districts) level, by the President's Office Regional and Local Administration (PO-RALG), while the wildlife service is managed by the Ministry of Natural Resources and Tourism (MNRT). Affiliated institutions or agencies within each respective ministry provide technical support. Such agencies and institutions include Tanzania Veterinary Laboratory Agency (TVLA), Tanzania Livestock Research Institute (TALIRI), Tanzania Wildlife Research Institute (TAWIRI), Tanzania National Parks Authority (TANAPA) and Ngorongoro Conservation Area Authority (NCAA).

Annex 2: Small Ruminant population, distribution and densities

Tanzanian goat and sheep wealth at the end of 2022/2023 was 25.6 and 8.8 million respectively, representing 5% and 2.2 % of the continental flock population, owned and providing livelihood of 1,815,220 and 667,273 households, respectively (Budget speech,2023/2024, Kamer, 2023). The two animal species represent 35% and 12% of the national population of quadruped meat producing animals (URT, 2021). More than half (58%) of the national flocks are reared in the regions above central Railway line. Over all national densities are 37 and 13 for goats and sheep, respectively. Sheep densities are highest in Mwanza (53/km^2), Arusha (42/km^2), followed by Kilimanjaro (36/km^2), Simiyu (32/km^2), and Manyara (21/ km^2). For goats, highest densities are found in Mwanza (147/km^2), followed by Kilimanjaro (85.7/km^2), Kagera (62.3/km^2), Geita (61/km^2), Kigoma (59/km^2), Manyara(53/km^2), Shinyanga(49.9/km^2) and Arusha(42/km^2). Iringa, Njombe, Dar-es-Salaam, Mtwara, Lindi and Ruvuma regions have considerable less numbers of goats and sheep. There are very few goats(<120,000) and sheep (< 7000) on the strongly cultural diversities offshore region of Zanzibar. Almost all animals are kept in low input-low output mixed smallholder, agro-pastoral or pastoral systems. Regional distribution is shown in Fig 1a, b.

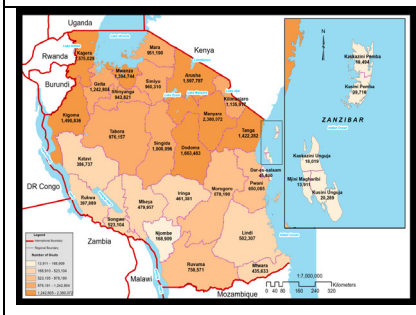
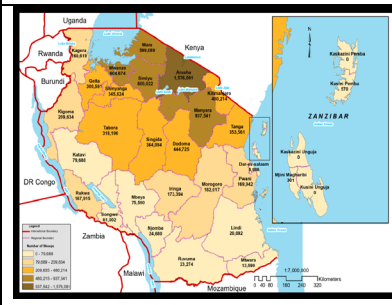
A	B
	

Figure 1a : Goats numbers by region

Figure 1b : Sheep numbers by region

Annex 3: Small Ruminant: production system, value chain and market chain analysis

Small ruminant production system in Tanzania can be conveniently categorized as Pastoral, Extensive agro-pastoralism, Semi-intensive system, Intensive system which includes tethering and in situ 'cut and carry'. Pastoralism or nomadism is characteristic of arid and semi-arid areas of the country. Sheep and goats are important assets for smallholder farmers, and these animals often enter the formal economy only to a limited extent. The link between production systems, watering points, markets, slaughter points and consumers collectively constitute a "contact network" that provide an ideal opportunities for diseases transmission within herds/flock and between herds/flocks located at different geographical localities. The predominant production system in Tanzania pastoral is characterised by extensive animal mobility due to various reason including disease avoidance and search for pasture and water especially during drought period. Disease risk factors related to animal and their products movement along the value chains are numerous and may include; presence of vulnerable unvaccinated stock; presence of disease incubating stock; movement of animals from infected area to clean area; movement of animals from the neighbouring infected countries through the country porous borders, among others. Deploying risky avoidance practices, heightened surveillance and reinforcement of animal movement along these risk points well supported by public awareness and legal instruments will be critical in the control of PPR.

Marketing of live animals in the country takes place in primary, secondary and border livestock markets located close to main production areas. Often times, animals are either sold to traders or brokers at farm gate. The trading is done on negotiation between buyers and sellers with less consideration of grade. Trader/ broker will take the animal either to slaughter slabs/houses or to the secondary market or individual premises located at nearby village, districts, region for breeding or slaughter. Informal (home, market place and road side) slaughters for rituals, recreation and during festive are common in many livestock keeping communities in Tanzania. Once slaughter has been done, meat is transported to the butcheries, hotels, private consumers by the animal owners or through meat traders using certified or non-certified meat vans. In intensive production system exchange of cows for small ruminants for flock expansion and borrowing bucks and rams for breeding purposes is common. Manure trade among small ruminant production communities is not often done.

The long distance movement of livestock and wild animals for grazing increases during the drought periods leading to high contact rates between livestock and wildlife at watering points. Besides, there are increased animal movements for slaughter around the end of the year and the time of religious festivals. During that time, animals are immuno-compromised because of insufficient water, pastures and long distance

movement. It is at this time when animals from different places come into contact thereby increasing the risk of spreading the TADs. It is also at this time when livestock are grazed illegally in game reserves and national parks resulting in livestock coming into contact with wild animals which are considered to be carriers of most TADs. Detailed value chain analysis for sheep and goats is shown in Fig 2 below.

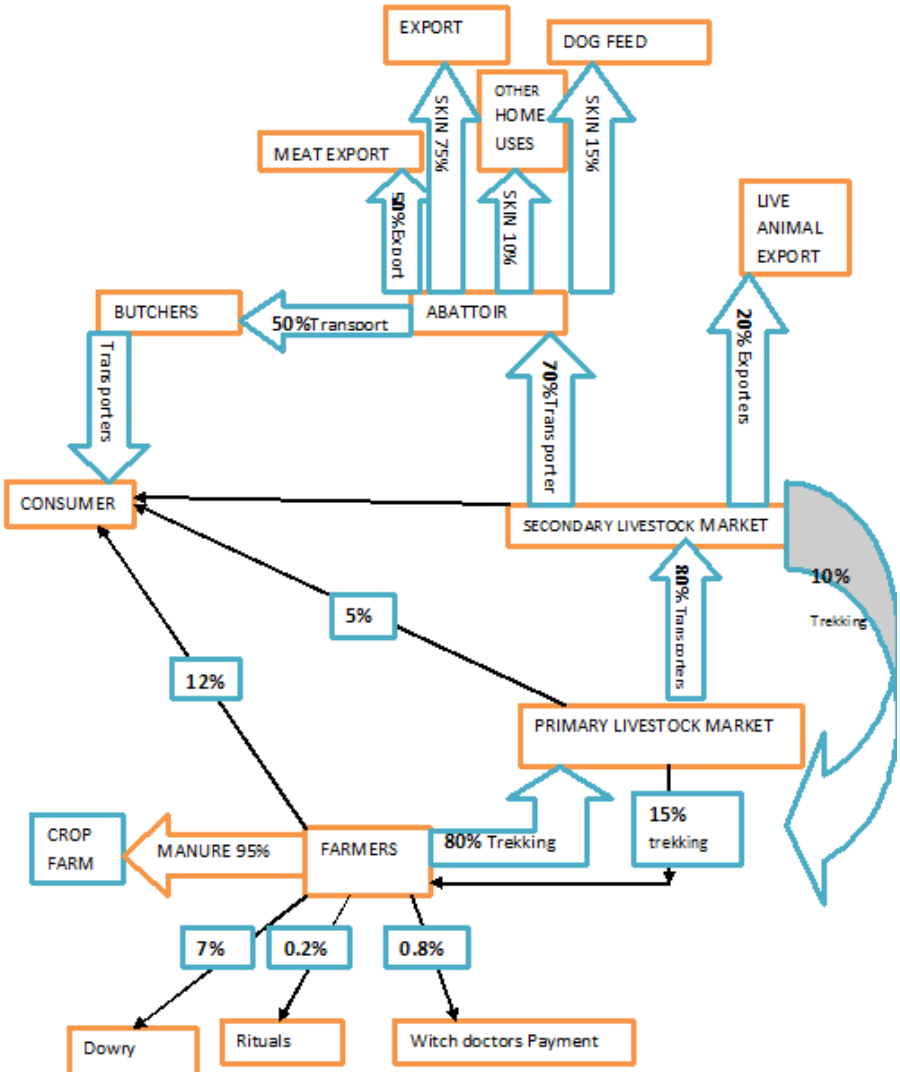


Figure 2: Small ruminants value chain in Tanzania

Annex 4 : PPR situation in the country and in neighbouring countries/region

The disease was first reported in northern Tanzania and confirmed in 2008 and officially reported to the World Organization for Animal Health (WOAH) on 27th January 2009. By the end of 2020 the disease had further spread to eastern, western, Lake Zone and southern parts of the country. So far the PPRV confirmed in Tanzania belongs to lineages II_IV. Lineage II has been described in northern and southern Tanzania, lineage III in northern and eastern Tanzania, and lineage IV in southern Tanzania. Lineage III is the lineage most commonly found in eastern Africa, whereas lineage II is most commonly found in western and central Africa.

In the recent past, there are indications of disease spreads and spill over to other regions that were considered to be free of the disease. Serological evidence of goats and sheep exposure to PPRV in Kigoma and sporadic outbreaks in Bahi (Dodoma), Misungwi (Mwanza), and Ngorongoro (Arusha) which were later on laboratory confirmed (SUA) are some of the evidence of further disease spread and persistency. Due to this widespread there is clear indication that the flock immunity is now low and the disease threatening over 15 Million small ruminants populations distributed in 20 regions of Tanzania mainland. At risk regions include Mara, Manyara, Arusha, Kagera, Mwanza, Shinyanga, Tanga, Tabora, Kilimanjaro, Dodoma, Mtwara, Ruvuma, Njombe, Mbeya and Rukwa.

The existence of disease in the neighbouring countries places Tanzania at a high risk due to constant movement of livestock and their products. In Kenya, Uganda and Burundi PPR was recognized in 2007 and 2017. There are no reports of PPR outbreaks in Rwanda although PPR is suspected to be present based on serological evidence (Shyka et al 2021). The DRC reported problems with PPR in 2012, and it is now considered to be endemic (Mulumba-Mfumu et al 2021). Zambia, Malawi and Mozambique have recently reported PPRV antibodies, but without clinical cases of PPR or presence of PPRV (Kamwendo, 2016; Mapaco et al., 2019). Such widespread and the presence of the disease in the neighbouring countries call for a cross border and epizone approach as part of control strategies.

Annex 5: List of stakeholders/partners: their role and responsibilities

S/no	Name of Institution/stakeholder	Roles/Responsibilities/ how are they engaged	Level of Importance/ Influence	Benefit
1	Ministry of Finance	• Main source of funds; • Allocate adequate funds for livestock development ; • Promote legal and policy environment for private sector participation in various activities related to distribution and marketing of inputs and agricultural products ; • Budgetary mainstreaming (Medium Term Expenditure Framework-Guidelines) • External support coordination • Monitor and evaluate livestock development in line with NSGRP monitoring system indicators ; • Analyse the contribution of livestock in growth and poverty reduction; and • Provide regulatory services for financial institutions so as to encourage increased	• Highly important and influential	• Increased revenue collection • Increased foreign currencies • Reduced importation of Goats and sheep meat

		private sector investment.		
2	Ministry of Livestock and Fisheries (MLF)(DVS)	• Have a leading role of coordinating and monitoring the implementation of the LSDS ; • Ensure that all stakeholders are informed of their roles and responsibilities and interact adequately in livestock development issues ; • Formulation of policies, strategies and Main Coordinator of implementation • Harmonize progress on local PPR control efforts with regional and international bodies. • Budget approval and Source of fundsProvide and supervise the implementation of regulatory services; • Set technical standards and guidelines for service providers; and Maintain and disseminate appropriate information on livestock and livestock products.	• Highly important and influential	• Increases food security and livelihood • Resources will be allocated to other disease control • Support resilient pastoralist livelihoods and sustainable agro and pastoralist production system

		• Disease monitoring, reporting and notification to public & OIE		
3	Ministry of Natural Resources and Tourism	• Coordination of wildlife activities • Source of funds • Strengthen mechanisms for harmonious and sustainable coexistence of wildlife and neighbouring pastoral communities.	• Highly important and low influence	• Reduced potential spillover of the virus from livestock to wildlife
4	President's Office Planning Commission	• Planning guidance • Plan coordination	• Highly important and influential	• Increases food security and livelihood
5	Prime Minister's Office – Disaster Management Department	• Disaster Management (operations and recovery stages)Coordination • Source of funds (Emergency Fund)	• Highly important and influential	• Increases food security and livelihood
6	Ministry of Home Affairs	• Facilitate enforcement of by-laws, laws and regulations in the livestock sector; • Facilitate resolution of conflicts between livestock farmers and crop growers; and • Enhance control of illegal cross border movements of livestock and livestock products	• Highly important and influential	• Smooth access to vaccine • Regulated animal movement

7	Tanzania Medicine and Medical Devices Authority(TMDA)	• Registration of vaccine • Regulate manufacture, importation of vaccine	• Highly important and low influence	• Quality veterinary input assurance
8	Central Veterinary Laboratory	• Rapid Response Team member • Research on vaccine development • Vaccine production/Quality control • Diagnosis • Validation of vaccines • Training	• Highly important and influential	• Health animals and capacity building
9	Tanzania National parks Authority (TANAPA) Tanzania Wildlife Research (TAWIRI) Ngorongoro Conservation Area Authority (NCAA)	• Research on PPR • Surveillance in wildlife/livestock interface areas • Source of funds	• Highly important and low influence	• No spillover of the virus from livestock to wildlife • Research findings
10	Zonal Veterinary Centres	• Rapid Response Team member • Surveillance and monitoring • Data collection, processing and reporting • Training • Vaccination • Post vaccination monitoring	• Highly important	• Resource for PPR control will be used to control other diseases • Healthy animals and capacity building

11	Nelson Mandela African Institute of Science and – Technology(NM-AIST)/Sokoine University of Agriculture/Livestock Training Agency(LITA)	• Generate evidence based information ie : • Research on PPR • Vaccine development and validation • PPR diagnosis • Training	• Highly important and influential	• Research findings
12	Tanzania Meat Board	• Source of funds • Sensitization of stakeholders	• Highly important and influential	• Increases food security and livelihood
13	Tanzania Dairy Board	• Source of funds • Sensitization of stakeholders	• Highly important and influential	• Increases food security and livelihood
14	Regional Administration and Local Government Authorities (Councils)	• Formulation of Rapid Response Teams • Interpret animal disease strategies according to local context and the livestock production systems existing in their areas • Coordinate livestock development activities in the district including those being implemented by NGOs/CBOS/FBOs/CSOs and donor supported programmes ; • Establish a mechanism for livestock information	• Highly important and influential	• Increases food security and livelihood • Improved animal health service delivery

		exchange within and outside the district • Source of funds • Supervise, regulate and enforce implementation of laws and by-laws • vaccination • Sensitization of stakeholders • Workforce deployment • Training of Livestock farmers		
15	Private sector and Civil Societies(NGO, CBOs)	• Service provision (Sanitary mandates/ Vaccinations). • Procurement and distribution of inputs. • Source of funds • Disease reporting • Sensitization of the stakeholders • Advocacy	• Highly important and influential	• Increased business • Increased income
16	Primary Producers (Livestock farmers, Commercial farmers)	• Collaborating and implement PPR control measures • Breeding and rearing of animals • Sensitization of members. • Recognition and reporting disease to Veterinary Authority • Provision of health, welfare for animals • Implement PPR control measures	• Highly important and influential	• Increases food security and livelihood • Increase income
17	Livestock Traders (Local	• Implement PPR control measures	• Highly important	• Increase d

	and Exporters), middle men, processors and transporters	• Invest in PPR control infrastructures e.g. trucks, holding grounds, quarantine stations. • Source of funds • Buying and selling of animals • Reporting disease to DVS		business • Increase d income
18	Development partners (Donors and international organizations)	• Source of funds • Technical backstopping • Support Capacity Building (Training, equipment and logistics • Co-ordinate international collaboration on PPR control	• Highly important and influential	• Improved livelihood
19	Media(local &national radio station, newspapers, Tv, social media)	• Mass communication • Public awareness	• Highly important and influential	• Quality of information (right message, right time, informed decision)
20	Veterinary Council of Tanzania	• Monitoring performance of professionals and para-professionals • Regulate veterinary training	• Highly important and influential	• Improved quality of veterinary service
21	Tanzania Veterinary/Parap roffesional Association	• Promote veterinary profession • Pressure group • Advocacy	• Highly important and influential	• Improved quality of veterinary service
22	Farmers	• Marketing of animals	• Highly	• Increase

	organization, Community based organization	and products • Provision of inputs & credit to members Advocacy for members	important	income
23	Consumers	• Feed-back to Veterinary Services	• Important	• Safe animal products
24	Tanzania Livestock Research Institute(TALIRI)	• Animal health research	• Highly important	• Building of human, material and physical capacities
25	Hunters/Rangers	• Recognition and reporting disease to Veterinary Authority • Recognition and reporting of PPR-compatible clinical signs in wildlife to the District Veterinary Office (DVO) or TAWIRI; participation in joint surveillance missions and sentinel site monitoring.	• Important	•
26	Regional economic blocks(EAC/ SADC)	• Technical support • Advocacy/lobby for funds • Coordination	• Highly important and influential	• Improved livelihood

Annex 6: Risk based surveillance plan

This section will be constructed and inserted. It is subject to modification as progress is made in the Eradication effort.

Annex 7 : Logical Framework : M&E

National Strategy description	Objectively verifiable indicators of achievement	Source and means of verification	Assumptions[1]
Goal			
To contribute to food security, wealth creation, trade enhancement, nutrition, poverty alleviation and resilience of livestock-dependent communities	• Improved sales for local and export market of small ruminants and products. • Improved economic growth	• Livestock markets records • export records • abattoir ante-mortem and meat inspection records. • Economic survey reports	Lucrative market of small ruminants
Purpose			
Eradication of PPR, reduction of other SRDs incidence and WOAH accreditation of freedom from the disease achieved	PPR incidences cleared and other SRDs incidences in districts minimized significantly.	Weekly, Monthly, quarter and annual animal health reports, Dossier	Funding, human resource-timely available
Key Results Areas			
R1: **PPR and SRD Controlled**			
1.1 Pre-vaccination sero-monitoring			
1.1.1 Field surveys and samples analysis	8 risk- based surveys	Reports	Funding
1.1.2 Purchase of field survey and lab equipments/ reagents	surveillance and lab kits purchase	Delivery notes	Funding

1.1.3 Undertake field assessment including description of risk pathways to identify risk hotspot areas and spread (along the value chain) where appropriate including wildlife	Dynamic of PPR Hot spot areas identified, mapped and risk pathways established and documented	Field Risk assessment report	Funding
1.14 Asses surveillance and laboratory capacities	CN and TOR to undertake the assessment	Assessment reports	Funding
1.1.5 Develop and refine SOPs and guidelines to facilitate surveillance and reporting at field level.	2 Write shop and validation meetings	Guidelines and validated SOP in place	
1.1.6. Continue technology development to enhance data capture and transmission		Data capture and transmission tools in place	Funding
1.1.7 Cross border/Episystem/wildlife interface harmonization of surveillance plans, information sharing and vaccination activities	8 Planning and implementation meeting	LoA/MoU, meeting/progress reports, Invitation letters, Back to office report	Countries compliance and funding
1.2. Management of PPR, CCPP, sheep and goat pox, through vaccinations and appropriate treatments.			
1.2.1 Develop National and Regional or District level stakeholder advisory committees	25 committees	Meeting/proceeding records	Funding and political will
1.2.2 To train stakeholders in the wildlife-livestock interface areas on disease recognition, reporting and surveillance	400 stakeholders (wildlife/forest/livestock staffs, judiciary, police, etc) in 10	Training reports	

	interface areas trained on disease recognition, reporting and surveillance, movement control regulations		
1.2.3 To conduct public awareness including gender mainstreaming on the disease occurrence, spread and control in livestock and wildlife interface areas	10 mass media communication programs prepared, leaf lets poster, workshops, meetings and disseminated in the wildlife areas	Number and type of communication materials produced and disseminated	
1.2.4 To build capacity of game rangers and others wildlife staff on PPR and other SR diseases	To conduct biannual interministerial meeting	Meeting reports	
1.2.5 To strengthen collaborations and reporting systems on SR diseases between MLF and MNRT		LoA	
1.2.6. Engage stake holders (SR value chain actors) in the planning, implementation and oversight of veterinary services in their areas	25 engagement meetings conducted	Meeting/proceeding records	Private/public /international partnership prevail
1.2.7 Purchase of vaccines, and equipment,	18 million doses of PPR, SGP CCPP, each Equipments and other inputs	Delivery notes	Availability of funds and vaccines
1.2.8: Coordinate and foster collaboration on the delivery of animal health programmes (PPP approach) across	10 collaborative initiatives engagement established	MoU/LoA	Stakeholders compliance

Regions and Districts.			
1.2.9. Mapping stakeholders/ or stakeholders organization nationally along the SR value chain	90%of eligible stakeholders mapped	Stakeholders data base	Stakeholder compliance
1.2.10 Develop protocols/ guidelines/ SOPs relevant to how to maintain good quality vaccine including best delivery system (storage, shipment and handling)	Number of forums to develop protocols/ guidelines/ SOPs developed protocols/ guidelines/ SOPs developed	Minutes and proceedings Guidelines documents	Funding
1.2.11. Disseminate 'Mwongozo wa chanjo na uchanjaji, 2021' to stakeholders for adoption	90% of targeted stakeholder reached	Feedback reports	
1.2.12. Carry out vaccination and treatments	Carry out two vaccination programme for each disease 80% of targeted animals vaccinated	Reports Vaccination records	Funding and farmer participation and compliance
1.2.13. Promote and foster active partnership between public VS and NGO's, private sector and civil society organization	10 engagements meeting conducted annually	Meeting reports	Stakeholder compliance
1.3 Animal and products movement managed			
1.3.1 To appoint and build capacity and monitor the performance of animal health inspectors at	**300** veterinary inspectors appointed, trained and	Progress report	

surveillance posts	facilitated		
1.3.2 To establish and map operationalize veterinary infrastructures and facilities	**2000** livestock development centres and other 2,400 veterinary facilities (animal pounds/holding grounds, checkpoints) established, mapped and functional	Progress and map reports	
1.3.3 Develop/ re-enforce regulations, guidelines and standards for appropriate transportation of livestock and livestock products	Regulations, guidelines and standards for appropriate transportation of animal and animal products be formulated and adopted	Progress report	
1.3.4 To create public awareness to stakeholders on disease risks involved in livestock movement	5 targeted in-house and 10 mass media communication programs prepared and disseminated / circulated	Progress report	Funding
1.3.5 To facilitate formulation of by laws regarding livestock and by products movements	Each LGA formulate bylaws pertaining to livestock movement control		
1.3.6 Enforcement of compulsory vaccination and movement control (check points, farms, border posts etc.).	Bylaws enacted to enforce compulsory vaccination in place	Defaulter reports Vaccination report	Funding

1.4.The role of wildlife in the PPR dynamics established			
1.4.1 To conduct research, surveillance and monitoring in both livestock- wildlife interface areas and core protected areas	5 active surveys and monitoring conducted in core wildlife areas and in livestock wildlife interface	Survey/research reports	Funding
1.4.2 To strengthen diagnostic capacity in wildlife veterinary services	Retraining of 10 staff on modern diagnostic techniques and equip 4 diagnostic laboratories	Training reports, delivery reports	
1.4.3 To strengthen PPR serotyping and sero-surveillance in wildlife PPR susceptible spp	Sero-analysis of 4000 collected samples done		
1.4.4 To design and implement disease intervention plans appropriate for livestock – wildlife interface areas	Disease intervention plan designed and implemented in the 10 interfaces	Progress report	
1.5 Capacity building of field surveillance and laboratory diagnostics			
1.5.1. Procurement of field and laboratory equipments, test kits, shipping materials, and other laboratory consumables	8 Laboratories equipped	Delivery notes report	Funding availability
1.5.2. Training, workshops/meetings/conferences	6 local training workshops conducted 3 regional network/asseament meetings attended 4 national networking	Reports Meeting reports	Funding availability

	meeting conducted		
1.5.3. Refurbishment of laboratories	8 laboratories biosafety and biosecurity enhanced	Completion certificates	Funding
1.5.4. Sample processing and analysis	90 % of submitted samples processed and analyzed and feedback given.	Reports	Funding and timely availability of laboratory consumables
1.5.5. Shipping of samples to the local reference laboratories	90 % of eligible samples referred	Reports and shipping documents	Funding
1.5.6. Validation of pen-side, test kits and DIVA tests conducted	Rapid test kits approved for use	Field and lab reports	Funding
1.5.7 Train technical staff on participatory disease surveillance, outbreak investigation, risk analysis, mapping and update disease risk map	15 staff trained/re-oriented on risk analysis principles	Training reports	Funding
1.5.8 To strengthen use and link ICT facilities at diagnostic laboratories, district, region, zone and national levels (National surveillance system)	200 institutions (District Livestock offices, Regions, ZVCs, TVLA, TAWIRI, TANAPA, SUA and Ministry H/Q) linked to ICT facilities	MLF, LGAs, Regions, Institutions reports	Private/public partnership prevail
1.5.9 Stakeholders consultation through participatory forums and interviews aiming at PPR impact assessment	10 stakeholders consultations annually	Reports	Private/public partnership prevail

1.5.10. To bill capacity to technical staff at all relevant levels on the use and management of ICT facilities	300 technical staffs trained on the use and management of ICT facilities	Training report	
1.6 Develop an effective communication strategy to assure stakeholder participation and establish advocacy pathways			
1.6.1. Prepare message for producers, extension workers, policy makers, SR value chain actors, media and community	10 messages produced and disseminated	Reports	Funding availability , social cultural barriers
1.6.2. Print and distribute messages for the different stakeholders	200,000 Pamphlets printed 200,000 brochures printed	Dispatch/delivery notes	funding
1.6.3 Hire Local radio for dissemination of messages in local FM stations	10,000 radio spots	Contracts with the radio stations CD reports and feedback reports	Funding availability of radio stations
1.6.4 Print messages in local print media	50 print messages	Print media copies	Funding
1.6.5 Conduct dissemination community with local leaders	5000 public/community meetings	Reports	Funding
1.6.6 Formation of community disease reporting committees	500 operationalized committees	Reports	Funding and community

			commitment
1.6.7 Conduct coordination and feedback workshops for partners	52 workshops conducted	Reports	Funding
1.6.8 Develop educational material aiming at improving 'critical control points' level bio-security measures	2 educational materials developed	Educational materials	Funding
1.6.9 Development and activation of preparedness and contingency plans for PPR free areas	One preparedness and contingency plan developed and activated	CP plan Simulation report	Funding
1.7 Post vaccination sero-monitoring to assess the effectiveness of the vaccinations			
1.7.1 Develop and implement post vaccination evaluation protocols guided by WOAH/FAO guidelines and risk -based surveillance plan	Protocol developed Number of samples collected and tested	PVE Protocol documents Laboratory results/reports	Funding
1.7.2 Field surveys and lab analysis	8 surveys	Reports	Funding
1.8 Prevent incursions and maintain freedom in the free areas, through sanitary measures and surveillance			
18.1. Passive Surveillance	• 50 Disease reports at LGA'S and national levels each • 10 Quarterly sanitary reports • 10 Livestock disease Data bases at the Zonal's and national levels established	Reports Operational data base	Funding

1.8.2 Undertake syndromic surveillance through farm visits, watering points, Market points, holding grounds, stock route inspection	52 weekly inspections conducted per LGA's	Reports	Funding
1.8..3 Awareness creation and enhancing stakeholder participation in joint programmes, communication through meetings, Workshops Seminars field days (cf with communication)	• 250 field days • 150 workshops and meetings conducted	Reports	Funding
1.8.4 Strengthening sanitary measures and surveillance through provision of protocols, working tools and human resource	• 10 Private sectors service providers sub contracted under PPP arrangement to undertake vaccination	Reports Contracts	Funding
1.8.5 Strengthening animal movement control	• 4 bylaws enacted • 4 disease control facilities(check points, holding grounds, border post) rehabilitated and retooled	Laws Delivery notes, certificate pf completion	Funding
1.9 Improve animal health service delivery systems and make use of improved technologies for disease detection and control			
1.9.1 Enhance preparedness and rapid response capacities	30 rapid response teams in place 30 Rapid response preparedness plans	Preparedness and response plans Records of simulation exercises	Funding
1.9.2 Improve information flow along the SR value chain	100% of notifiable diseases encountered by LGA'S reported	Reports	Funding, disease

	in a timely manner 100% laboratory feedback on received samples conducted Quarterly national feedback reports produced and disseminated		awareness and appropriate infrastructure in place
1.9.3 Support applied research	DIVA/Thermotolerant/field pen - side kits research supported Role of wildlife in epidemiology of PPR research supported Research in Circulating lineage supported Socio-economic impact of control intervention supported Research in real time surveillance tools supported Research on Serological diagnostic tools targeting different susceptible wildlife spp Conduct innovation research on technology transfer i.e. vaccine handling and delivery model Establish PPRv repository bank for future vaccine production and	Reports	Funding and availability of appropriate technical staff.

	research.		
1.10 Revise the risk maps and the target of control interventions, focusing on eradication.			
1.10.1 Data analysis and generation of risk maps to facilitate review of Contingency Plan	Revised risk maps available	Maps	Funding and appropriate skills on mapping
1.11 Review of preparedness and contingency plans			
1.11.1 Review and update the Contingency Plan	Revised preparedness and contingency plans	Plans	Funding
1.11.2. Simulation of emergency preparedness and response	2 National field simulations 8 zonal field simulations 47 Table top LGA'S simulations	Reports	Funding
R2. PPR Eradicated			
2.1 Enhancing disease surveillance and early detection			
2.1.1Passive surveillance	50 Disease reports at the LGA and national levels each • 10 Quarterly sanitary reports • 10 Livestock disease Data bases at the ZVCs and national levels	Reports Operational data base	Funding
2.1.2 Participatory disease surveillance	120 PDS done by the LGA's	Reports	Funding
2.1.3 Sentinel surveillance	8 sentinel herds/flocks established (1	Inventory of	Funding and farmer

	per zone) 30 monitoring missions conducted	herds/flocks Reports	compliance
2.2 Outbreak response and tracing			
2.2.1 Outbreak investigation including tracing	100% of outbreaks investigated	Reports	Funding
2.3 Immediate control measures			
2.3.1 Biosecurity (especially movement control)	100% prosecution of offenders 100% quarantine imposition and enforcement enhanced	Reports Gazette/quarantine notices	Availability and aware of veterinary law among law enforce
2.3.2 Vaccination (vaccine and operational funds)	Emergency vaccine stocks Contingency funds available Response teams in place	Reports Store records Response plan	Funding available and teams in place
R3: Post eradication monitoring strengthened			
3.1 Post-outbreak surveillance (sero-monitoring)	100% post outbreak sero surveillance carried out	Reports	Funding
3.2 Review of the impact of control measures (vaccination, bio-security)	100% impact assessment conducted post vaccination	Reports	
3.3 Awareness campaigns through field veterinarians, NGOs, CBOs, FBOs, media (print and electronic)	field days and meetings conducted for every outbreak	Reports	Funding
3.4 Review of preparedness and contingency plans	Reviewed Plan	Plan	Funding
3.5 Application for endorsement of	Dossier prepared	Dossier	Funding

National PPR control programme by the WOAH			
R4: Coordination and management enhanced			
4.1 Foster and develop protocol and coordination mechanism between the PPPs	Quartely and scheduled coordination meeting held	Cordination guideline Meeting reports	Funding
4.2 capacitate epi-units, zonal offices, labs, vehicles, cold chain and support staff development	Procure office consumables, computors, scanners, printers, vehicles, vaccine storage facilities, telephones, faxes 80% coordination staff trained on project management and technical related courses 100% of the zonal supported with vehicles/motor bikes/comminication utilities	Delivery notes Store records Training reports	Funding
R5. PPR eradicated and free status verified by WOAH			
5.1 Surveillance (clinical and serology) activities (random surveys for proof of presence or absence of PPR).	8 national surveys (1 survey per zone)	Reports	Funding
5.2 Generate the data, develop dossier required to make application of PPR freedom to WOAH	Random surveillance to demonstrate absence or presence of PPR conducted Developed dossier in place	Report and Dossier	

5.3 Participate and share results of PCP activities at national and regional level, e.g. Regional Roadmap meeting	Number of regional/international forum attended	Meeting reports	Funding
5.4 Review and test emergency preparedness and contingency plans	Reviewed Plan	Plan	Funding
5.5 Review quarantine system	Reviewed report	Report	Funding
5.6 Stakeholders consultations incl leaders at different levels	2 stakeholder engagement meeting	Engagement meeting reports	Funding
5.7 Consolidate PPR like materials	Develop guideline and plan for consolidation	Reports and guideline available	Funding
5.8 Commemoration of eradication	Commemoration event	Report, certificate of freedom	Funding

Annex 8: Public-Private-Partnership framework

Annex 8_FINAL_PRIVATE_

Annex 9: Resource mobilization strategy

Annex 9_FINAL_PPR_RESC

Annex 10: Risk communication and Community engagement Strategy

Annex 10_FINAL_PPR_ RIS