Country Report

Livestock and Animal Health Situation in Nepal: Opportunities, Challenges and Way Forward

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Outline of the presentation

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  - Livestock Service Delivery
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  - Legislative frameworks
  - Disease Notification System
- **Challenges**
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  - African Swine Fever
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- **Resource mobilization**
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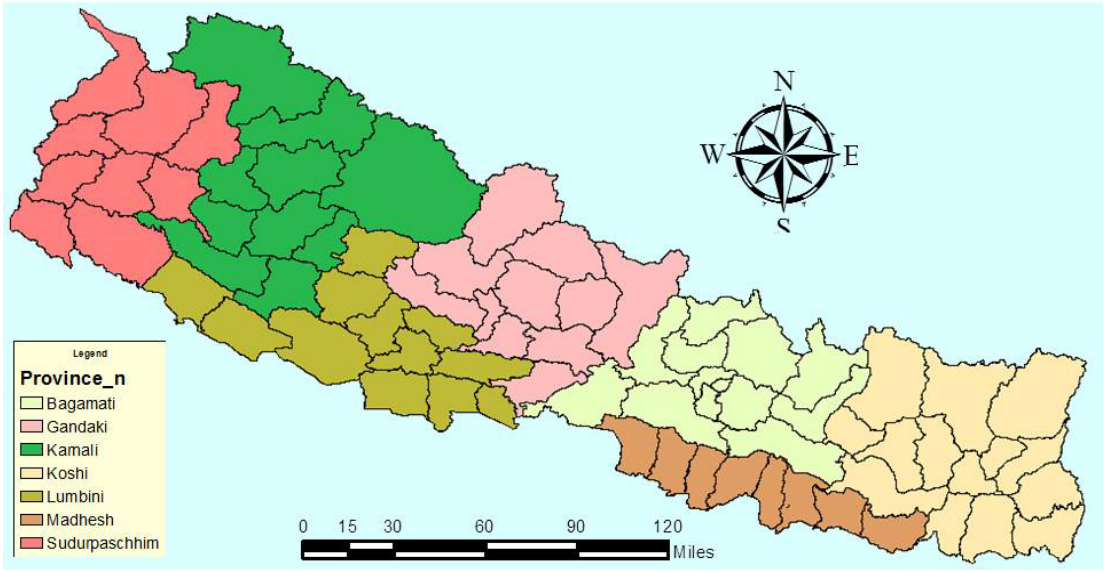
Nepal: A Brief Introduction

- Population of around 30 million.

- Politically, divided into 7 provinces, 77 districts and 753 municipalities.

- Geographically, divided into 3 eco-zones Mountains (in Northern part), Hills (in Middle) and Terai (in Southern plain).

- Nepal is rich in biodiversity providing house to more than 4% of world's mammals and 8% of world's birds.



Glimpse of Livestock Contribution in Nepal

- Contributes 6.2% in National GDP
- Nearly a one-third in AGDP (excluding processing industry)
- Livestock products account for up to 25% of food basket.

Contribution to livestock GDP

- **Dairy**: 62.6%
- **Meat**: 32.4%
- **Eggs**: 5.0%

- Around 57% of the rural people engaged in Livestock
- Backbone of rural economy.
- Important sector to alleviate rural poverty and to generate income and employment.

Livestock and livestock products in Number

7.4 Million (15% exotic)

5.1 Million (36% exotic)

Annual Production 2.5 Million MT

14.2 Millions (20% exotic)

1.4 Million (42% exotic)

Annual production 0.504 million MT

0.79 Million (5-10% exotic)

68.5 Million (50% exotic)

Annual production 1410 million

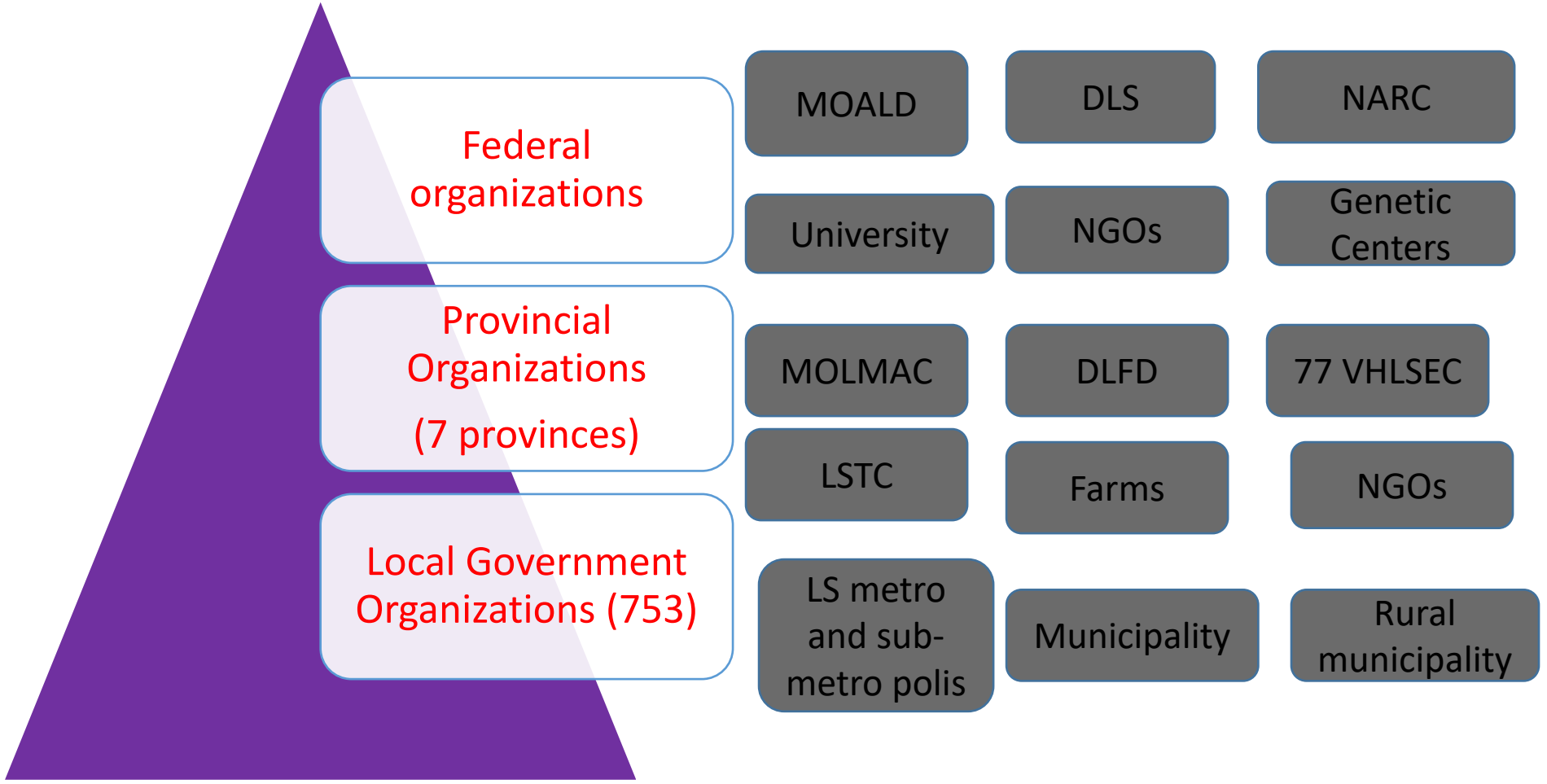
Annual production 0.114 million MT

Self sufficiency goal

PARTICULARS	MILK	MEAT AND FISH	EGG
AVAILABILITY	87.6 LIT/HEAD / YEAR	21 KG /HEAD / YEAR	48 NO/HEAD/YR

Nepal aims to become self sufficient in milk, meat and eggs in the near future.

Service delivery structure in the context of Federalism



Roles of different tires of governments

Federal
Quarantine
Disease Control
Regulation
Vaccine Production
Trade Facilitation
Genetic Resource

Provincial
Service delivery
Disease Control
Guidance to local level
Entrepreneur Development
Market Development
Genetic Resource

Local
Animal Health Service
Extension
Vaccination
Disease Reporting
Livestock Production
Marketing

Major Programs of Department of Livestock Services

- Animal Quarantine
- Disease Investigation Diagnosis
- Control of Animal Diseases
- Vaccine production and Distribution
- Animal Treatment
- Quality control & Regulation
- Animal Genetic Improvement
- Artificial Insemination
- Livestock Farms
- Improved Breed Production
- Pasture and Feed
- Market Promotion

Legislative Frameworks

Overarching Policies

- Constitution of Nepal
- 15th National Plan
- Agriculture Development Strategy (ADS)
- National Agriculture Policy 2004
- National Dairy Development Policy 2021
- Rangeland Policy, 2011
- National Animal Health Policy and National Animal Breeding Policy - submitted for approval
- Agri-business Promotion Policy 2006
- Trade policy 2008
- Supply policy 2012
- Agriculture Biodiversity Policy 2006
- Agriculture Mechanization Policy 2014
- Breeding Policy 2022
- Animal Health Policy 2022

Major Acts and Regulations

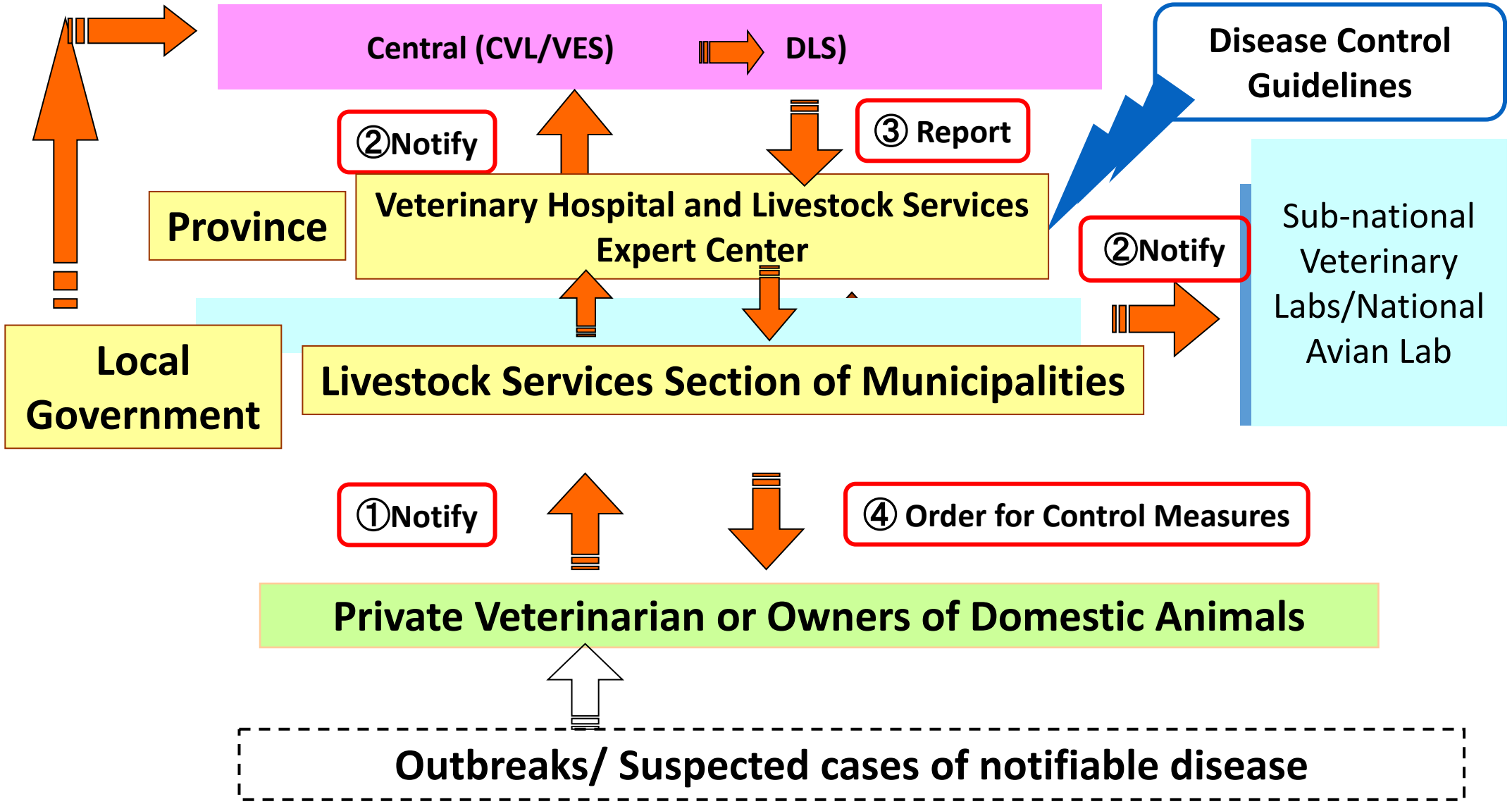
Major Acts and Regulations

- Animal health and livestock services act, 1998 and Regulation, 1999
- Slaughterhouse and meat inspection act, 1998 and Regulation 2000
- Nepal veterinary council act, 1998 and Regulations, 2000
- Nepal Agriculture Research council act 2048
- Feed act 1976 and Regulations 1984
- Drug act 1978

Standards, Directives, Guidelines, Procedures

- Slaughterhouse and meat inspection technical directives 2007
- Crop and Livestock Insurance Directives 2012
- Animal Welfare Directives, 2017
- Animal Transportation Standard, 2007
- Animal Health Program implementation guideline, 2018
- Zoning and Compartmentalization Directives, 2021

NATIONAL DISEASE NOTIFICATION SYSTEM



Challenges- Endemic, Emerging and Re-emerging Diseases

1. Emerging and re-emerging diseases (zoonotic and non-zoonotic)

Diseases	year
1. Lumpy Skin Disease (LSD)	2020
2. Glanders in Horses	2021
3. African Swine Fever (ASF)	2022
4. Highly Pathogenic Avian Influenza (HPAI)	2009
5. PRRS	2021

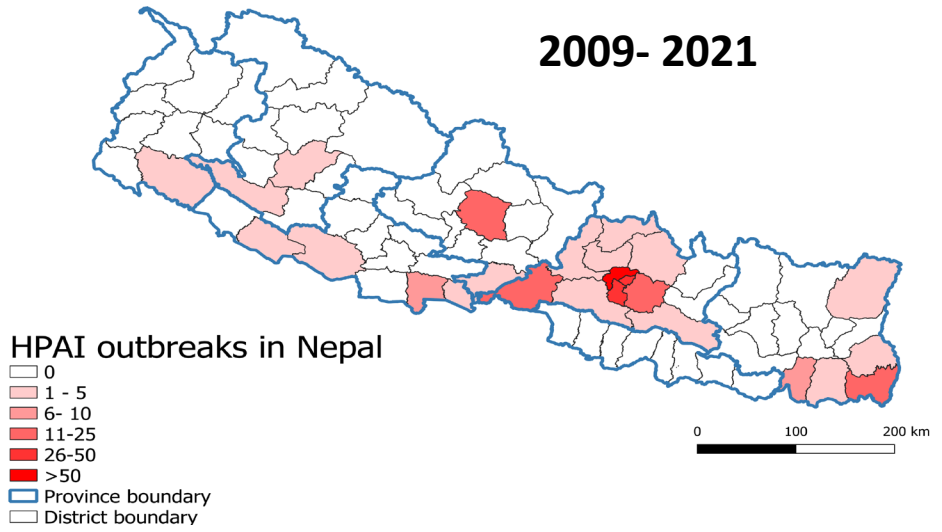
2. Endemic animal diseases

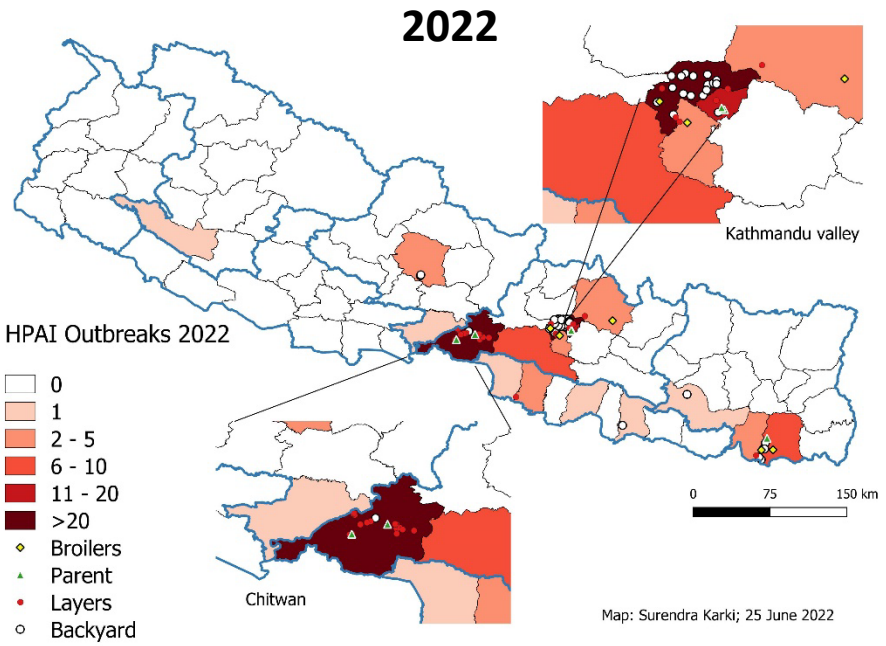
1. Foot-and-mouth Disease (FMD)
2. Peste-des-petits Ruminants (PPR)
3. Classical Swine Fever (CSF)
4. Ranikhet (New castle)

HPAI H5N1

- First outbreak of HPAI H5N1 was recorded in 2009.
- Since then more than 440 outbreaks have occurred resulting in culling of more than 2.2 million birds.
- H5N1 and H5N8 are isolated among highly pathogenic strain.
- Stamping out policy with compensation is followed as the Bird Flu Control Regulation.

Year of Outbreak	
H5N1 Virus Clade	
2065 (2009)	
2066 (2010)	
2067-070 (2011-2013)	
2073 (2017)	
H5N8 Virus Clade	
2073 (2017)	
H9N2	
G1- like H9N2 lineage with closest relationship to other G1-like H9N2 viruses that circulate in the South Asian region	





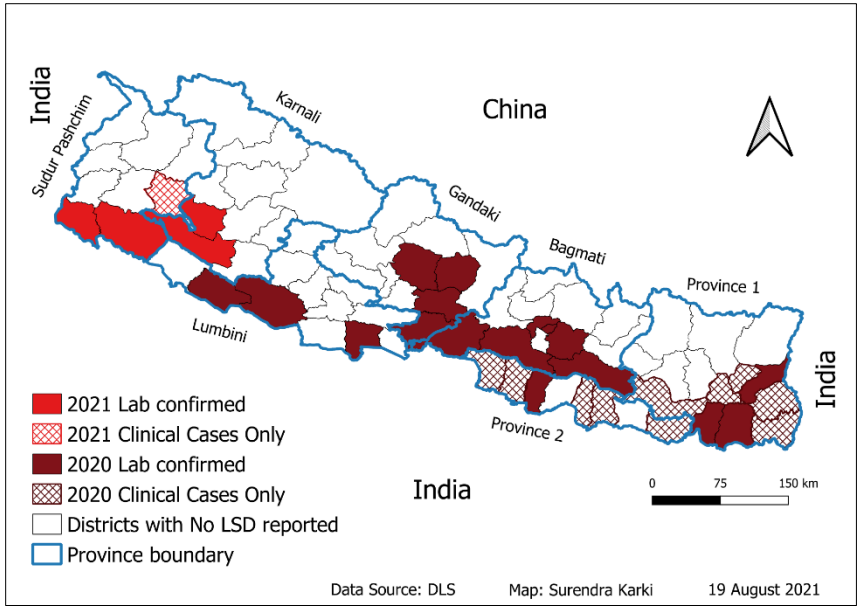
LSD in Nepal

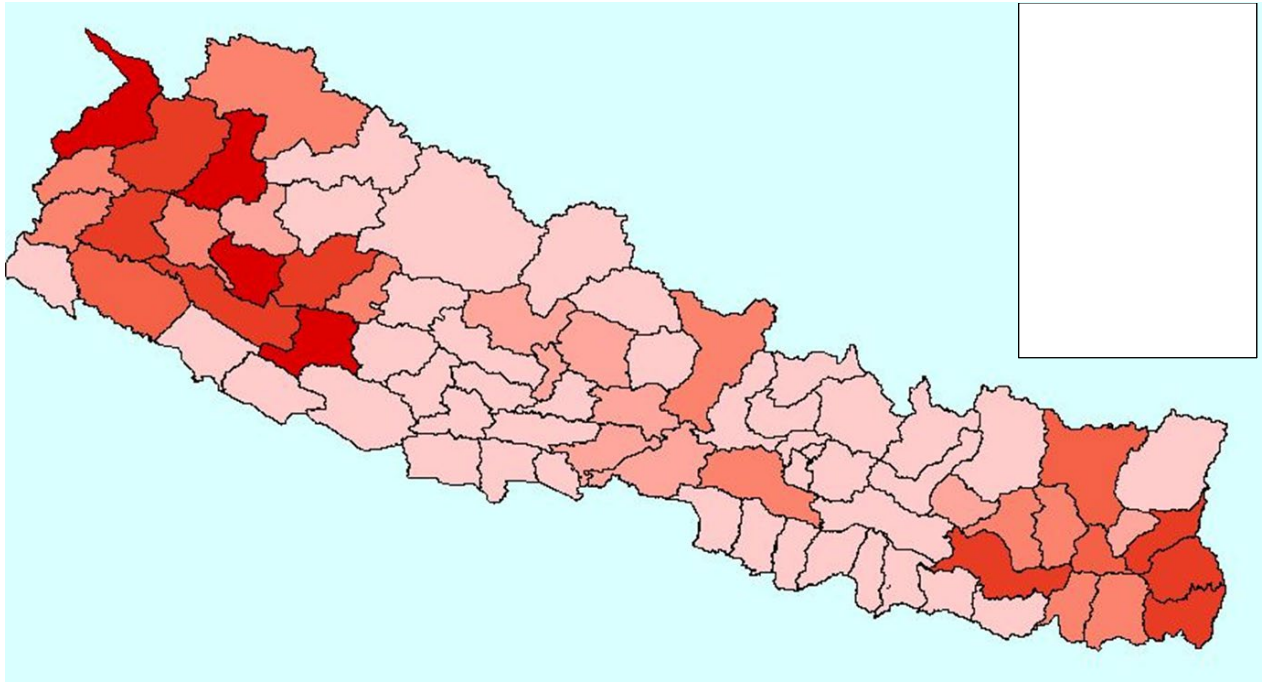
- LSD was first detected in Nepal in 2020 from Morang and nearby districts of eastern part of Nepal and spread to nearly 25-30 districts with few animals affected in most districts (top figure).

- Since December 2022, LSD took epidemic form in Nepal and by mid 2023, almost all districts of Nepal were affected by LSD causing huge economic losses.

- Since December 2022, LSD took epidemic form and by mid 2023, almost all districts were affected by LSD affecting more than 1.3 million cattle and buffaloes (bottom figure).

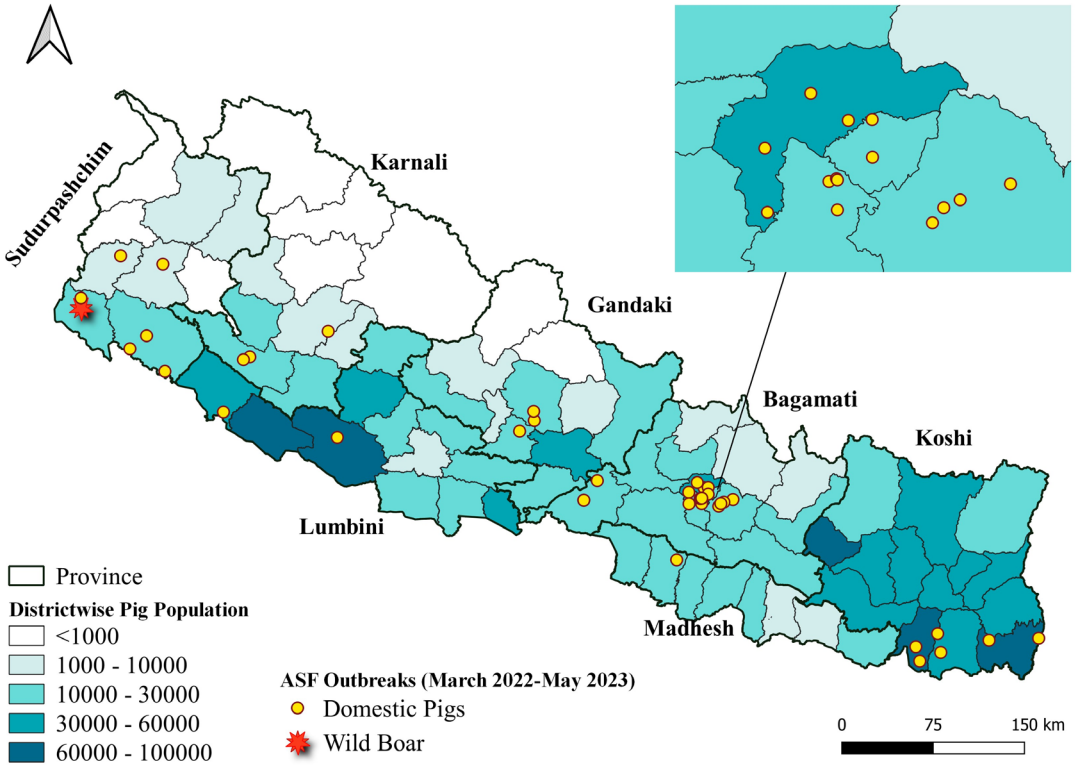
- Vaccination using Neethling strain is the main control strategy being implemented to control LSD outbreaks.

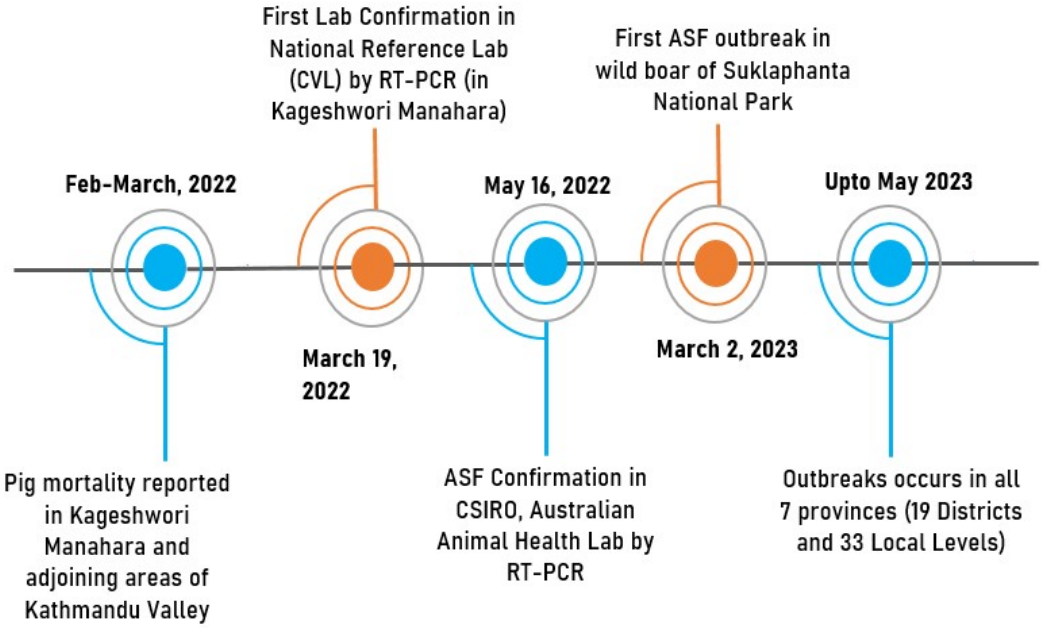




ASF in Nepal

- First ASF outbreak was confirmed in Nepal in May 2023 from Kathmandu valley.





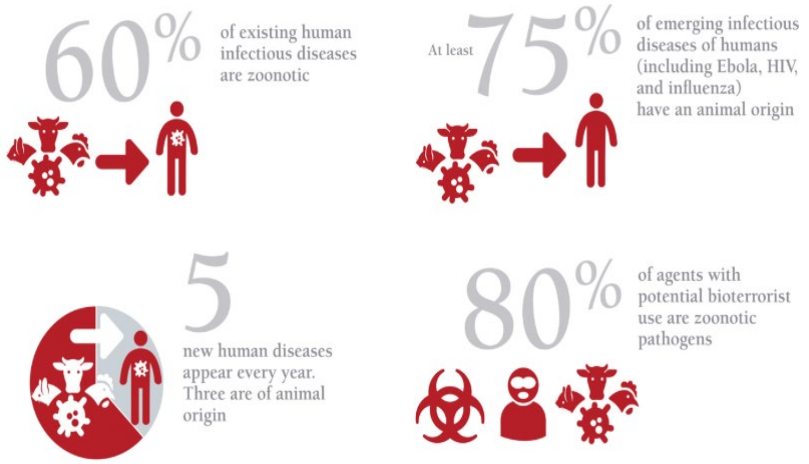
- Since then disease has spread to all 7 provinces of Nepal and has affected around 20 out of 77 districts affecting both domestic and wild boar.
- More than 50,000 pigs are estimated to die due to ASF outbreaks.
- Focus is on biosecurity improvement in pig farms and movement control to control ASF.

Prioritized Zoonotic Diseases of Nepal

Top 10 priority zoonotic disease

- Influenza (zoonotic influenza, seasonal influenza)
- Rabies virus
- Coronavirus
- Leptospirosis
- Brucellosis
- Salmonellosis
- Leishmaniasis
- Zoonotic Tuberculosis
- Cestodes (Echinococcosis/Hydatidosis)
- Toxoplasmosis.

There are also 24 Notifiable Animal Diseases listed by GoN



Besides, Antimicrobial resistance (AMR) is a major challenge in both human and animal health.

We need ***"One Health"*** approach to tackle these issues.

Global Targets in Disease Control

- **Peste-des-petits Ruminants (PPR):** Eradication of PPR by 2030:
  -Nepal is in Stage 1.

- **Foot-and-mouth Disease (FMD):** Reduction of impact of FMD by 2030:
  -Nepal is between Stage 1-2.

- **Rabies:** Zero by 30: Zero human deaths from dog mediated Rabies:
  -Nepal's self assessed SARE score is 0.5

International Evaluation Missions in Nepal

- Two major international missions conducted evaluation of Nepal's health system in the past 1 year.
- Joint External Evaluation was conducted in November- December 2022 with support from WHO Nepal.
- Follow up Performance of Veterinary Services (PVS) was conducted during 18-29 September 2023 through WOAH Experts. Earlier mission was done in 2008 followed by Gap Analysis Mission in 2011.
- The reports of these missions will be pivotal to strengthen the health systems and veterinary services in Nepal.

Pandemic Fund

The Pandemic Fund
FOR A RESILIENT WORLD

- The first call of pandemic fund proposals focused on the three priorities : Surveillance, Laboratory capacity, and Work force development covering 22 indicators (15 from JEE and 7 from PVS).
- Call for proposals opened on March 3 and closed on May 19, 2023. 179 proposals were received.
- Nepal submitted the proposal with 3 Ministries (MoHP, MoALD and Ministry of Water Supplies) with three Implementing Entities: WHO Nepal, FAO Nepal and UNICEF.

- Nepal's proposal "Strengthening Pandemic Preparedness for Early Detection (SPEED)" was one of the 19 winning proposals.
- Nepal will receive a total of 18.8 million USD for 3 years (WHO 9.7 million; UNICEF 4.6 million and FAO 4.4 million).
- The project need to start its implementation from January 2024 until December 2026.

Pandemic Fund…

The Pandemic Fund
FOR A RESILIENT WORLD

Below are the expected outcomes:

- **Outcome 1**. National Laboratory System Strengthened to timely detect endemic, emerging and re-emerging pathogen including pathogen of pandemic potential
- **Outcome 2**. National Surveillance system and early warning system strengthened to timely detect endemic, emerging and re-emerging pathogen including pathogen of pandemic potential
- **Outcome 3**. Human resources/workforce strengthened to timely detect endemic, emerging and re-emerging pathogen including pathogen of pandemic potential

USAID Global Health Security Project

- USAID has been supporting Nepal in improving laboratory and epidemiological capacity since 2005 through different projects.
- Current phase of USAID Global Health Security Project is expected to span from October 2023- September 2027
- Funding for FY 24 (October 2023- September 2024) is USD 1.5 million.

- Outcome 1: Enhance national One Health coordination and multisectoral collaboration among stakeholders
- Outcome 2: Enhance animal health capabilities for preparedness and response to public health threats, including AMR-related issues.
- Outcome 3: Promote, support and advocate for evidence-based policies that support the adoption of veterinary public health and biosecurity practices along the livestock value chain

Major challenges

- Emergence of new zoonotic and non-zoonotic TADs
- **Limited capacity**: Human resources, Funding and Infrastructure
- Huge livestock population with low productivity
- Inadequate institutional coordination and collaboration: among three tiers of Government and among One Health stakeholders
- Limited cross-border collaboration for disease control
- Meeting “Zero by 30” targets of disease control

Future steps/Way forward

- Coordination and collaboration among three tiers of government and One Health partners for disease control with clear roles and responsibilities.
- Implementation of existing legal and policy documents and formulation of new legal documents to tackle endemic, emerging and reemerging animal diseases, zoonosis and other OH problems such as AMR and Food Safety.

- Capacity building across all three tiers of government
- Increased regional collaboration for the control of priority TADs
- Political lobby for increased funding in livestock sector
- Fulfillment of gaps identified by PVS and JEE missions

THANK YOU