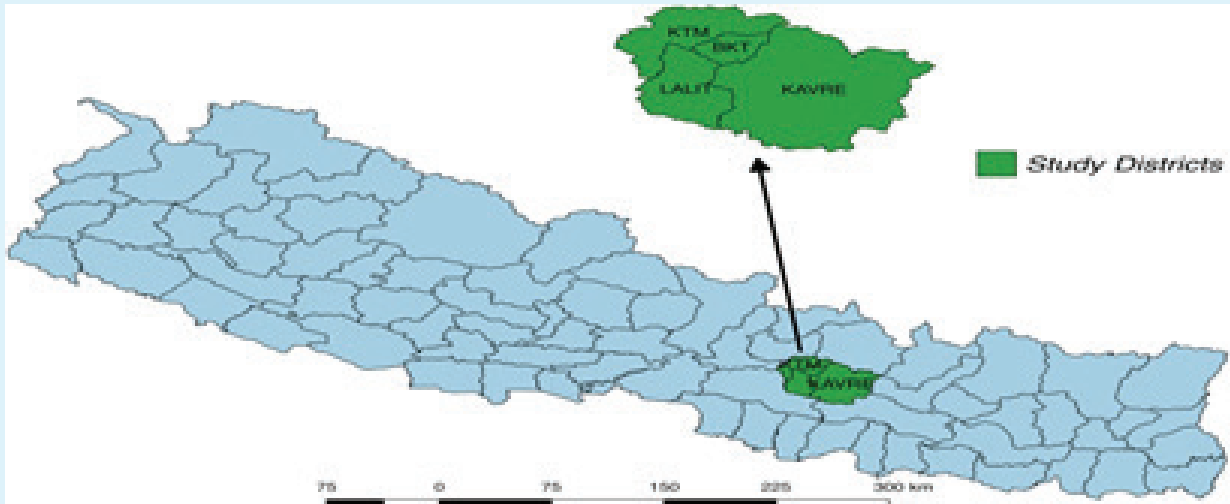


BOVINE TB/ZOONOTIC TB  
CURRENT SITUATION

- Nepal - hotspot for various zoonotic diseases. Prioritized zoonoses include Rabies, Coronavirus, Leptospirosis, and Zoonotic Tuberculosis (zTB), among others.
- Bovine TB (caused by M. bovis) is a neglected disease transmitted to humans through unpasteurized dairy, sick animals, or occupational exposure.
- Studies show a significant association between cattle exposure and human zTB (Gompo et al., 2020), with 9.76% of cattle testing positive via tuberculin tests.



- Pandey et. al. (2012) reported 13.6% prevalence in cattle and 15.4 percent in buffaloes raised by Tuberculosis patients in Western Chitawan, Nepal.
- While M. bovis contributes to human TB, its share is undocumented. Human TB - 229 cases per 100,000 and a mortality rate of 58 per 100,000 (NTBC, 2023).

DIAGNOSIS, SURVEILLANCE AND CONTROL

- Diagnostic tests- Tuberculin test, Rapid test kit and ELISA
- Surveillance task is executed by federal governments' laboratories, Central Veterinary Laboratory and Federal Veterinary Laboratories at different parts of the country. Blood samples are collected from different areas of the country and are diagnosed by Laboratories using serological test.

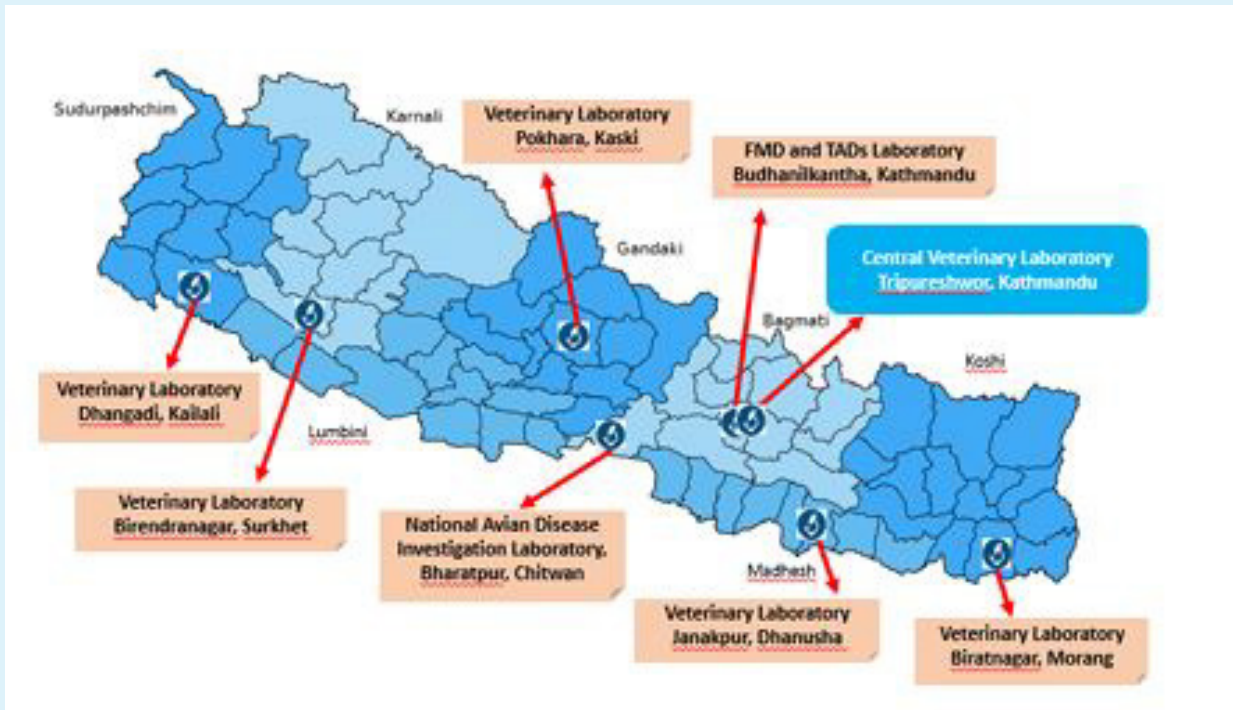


FIG : ORGANOGRAM

- No specific control plan in livestock population has been drafted yet.
- Nepal Elephant Tuberculosis control and Management (2011-2015).

ONE HEALTH APPROACH

- One Health Strategy has been approved by the Government of Nepal in 2019.
- Envisaged Steering and Technical Coordination Committees at the federal level .
- Avenues for the provincial governments for the formation of One Health Committees at the provincial level.
- One Health Committees formed in a number of provinces .
- A number of joint investigations have been conducted in a couple of provinces using this platform.
- However, the lack of a specific control plan for these diseases has always been a bottleneck.

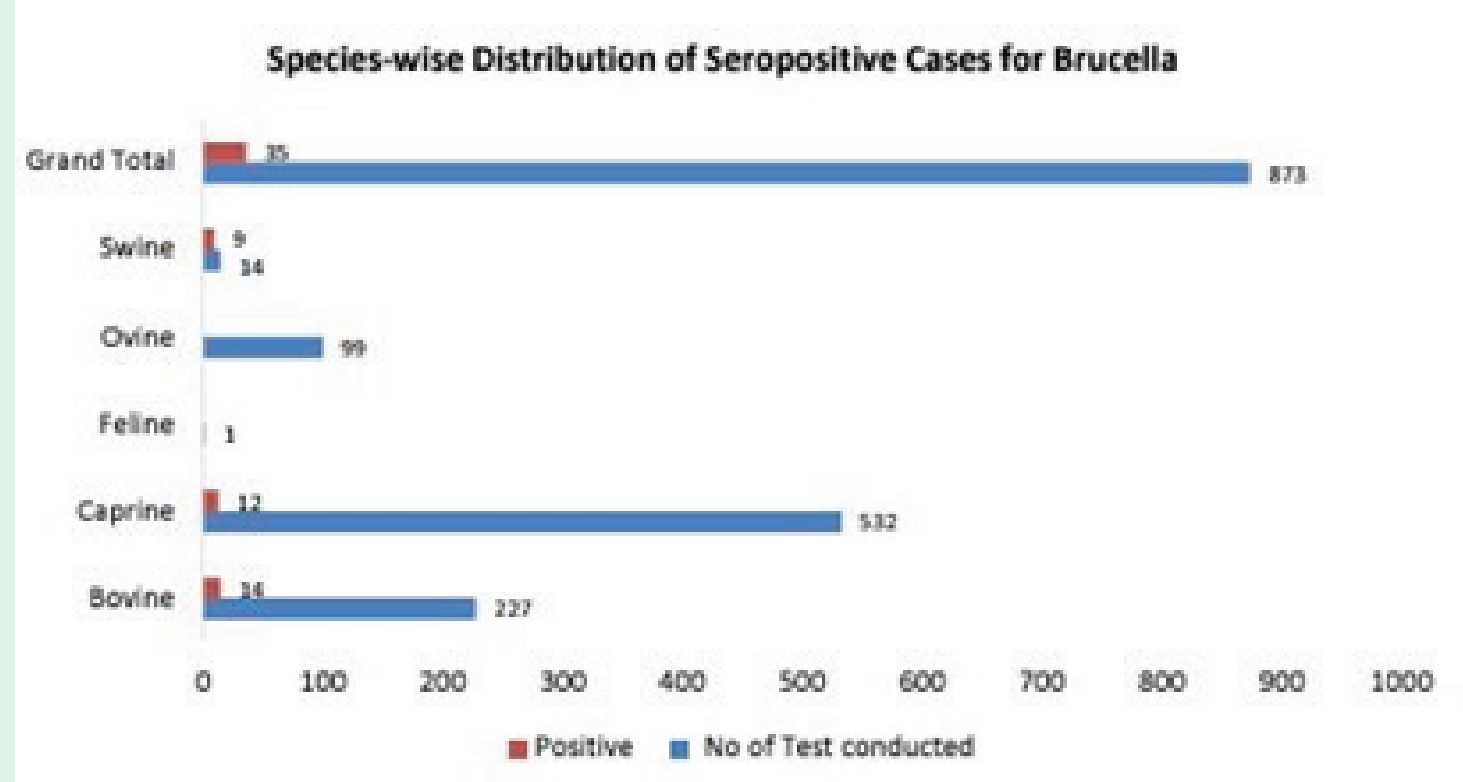
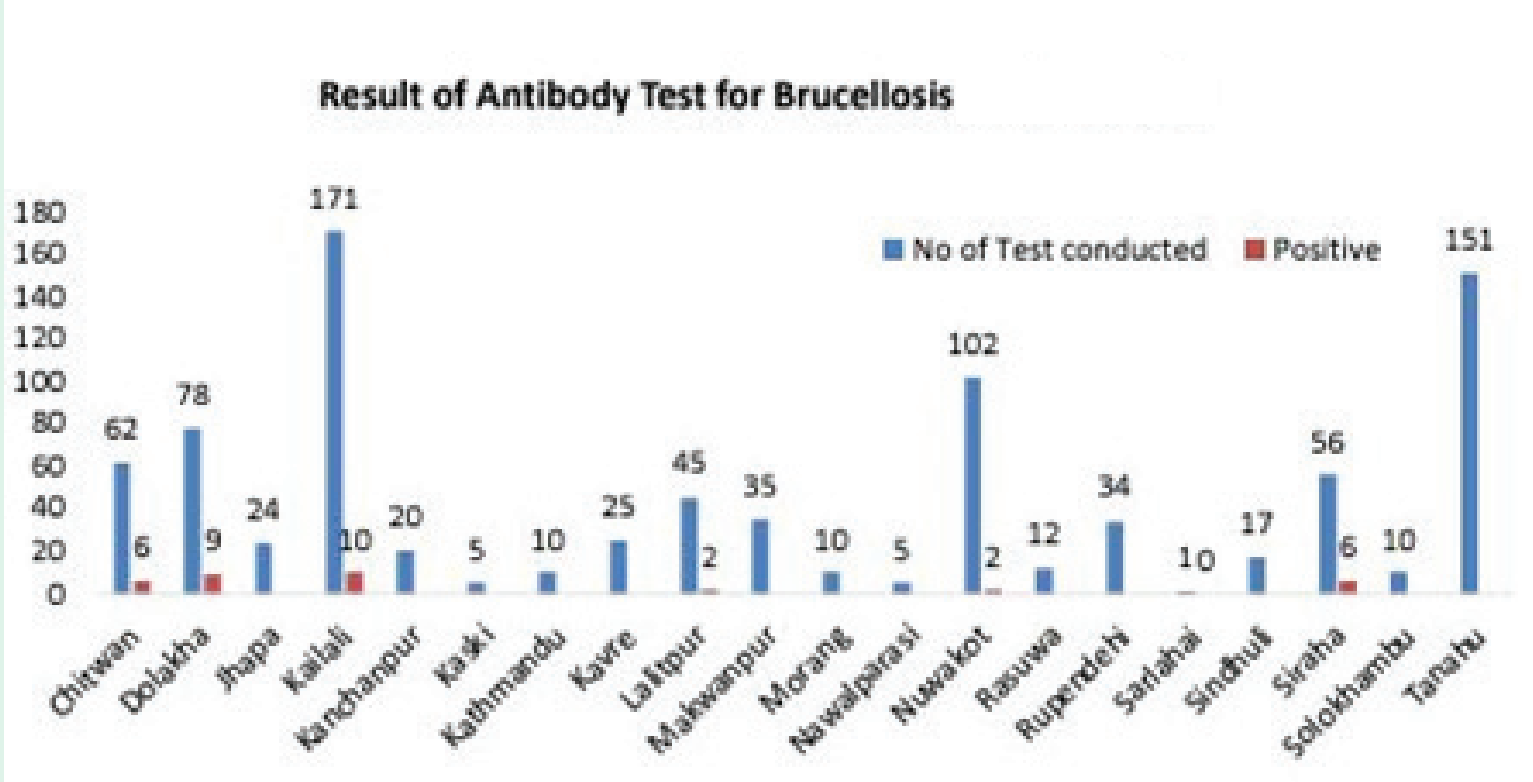
CHALLENGES

- Inadequate collaboration between Public Health and Animal Health sectors.
- Legal and cultural barriers in test and slaughter of sero-positive cattle.
- Poor access to diagnostic facilities at all tiers of the government.

WAY FORWARD

- Drafting and approval of a specific control plan and surveillance plan.
- Approval of the One Health Action Plan .
- Development of the laboratory capacity for the diagnosis of tuberculosis.
- Implementation of Good Husbandry Practices in the production farms, including screening of animals.
- Consumer awareness for the consumption of safe and wholesome livestock products.

BRUCELLOSIS  
CURRENT SITUATION



District	Species	Number of tested animals	No. of positive animals (%)	Reference
Rupandehi (Western Part of Nepal)	Goat and Sheep	277 Goats and 80 Sheep	1.1% in Goat and 15% in Sheep by ELISA	Gompo et.al., 2021
Chitwan(Central part of Nepal)	Pigs	100	15% by ELISA	Pokhrel et al., 2021
Various regions of Nepal	Bovine, Caprine and Swine	873	4.01%	CVL Annual Report, 2022/23
Sunsari and Jhapa (Eastern part of Nepal)	Bovine	183	3.82%	RVL Biratnagar Annual Report, 2022/023

BRUCELLOSIS IN HUMAN

- 11.25 percent (9/80) sero-prevalence was found in pregnant women visiting KMH, Kathmandu (Thapa and Maharjan, 2018).
- 11.95 percent prevalence reported in Kathmandu (Aryal and Paudel, 2007).

DIAGNOSIS, SURVEILLANCE AND CONTROL  
DIAGNOSTIC TESTS

- Brucella Milk Ring test (BMRT)
- Rapid diagnostic test (Rdt)
- Rose Bengal Plate Agglutination Test (RBPT)
- PCR
- ELISA test
- No specific surveillance and control plan drafted for its control.
- Despite of no Legal Surveillance and Control Plan, federal veterinary laboratories conduct serological tests for the sera sample collected from various regions of the Country.

ONE HEALTH APPROACH

- One Health Strategy has been approved by the Government of Nepal in 2019.
- Envisaged Steering and Technical Coordination Committees at the federal level .
- Avenues for the provincial governments for the formation of One Health Committees at the provincial level.
- One Health Committees formed in a number of provinces .
- A number of joint investigations have been conducted in a couple of provinces using this platform.
- However, the lack of a specific control plan for these diseases has always been a bottleneck.

CHALLENGES

- Inadequate collaboration between Public Health and Animal Health sectors.
- Legal and cultural barriers in test and slaughter of sero-positive cattle.
- Poor access to diagnostic facilities at all tiers of the government.
- No adequate joint investigation and researches.

WAY FORWARD

- Drafting and approval of a specific control plan and surveillance plan for Brucellosis.
- Development of the laboratory capacity for the diagnosis of Brucellosis at all tiers of Governance.
- Implementation of Good Husbandry Practices in the production farms, including screening of animals for Brucellosis.
- Consumer awareness for the consumption of safe and wholesome livestock products.