

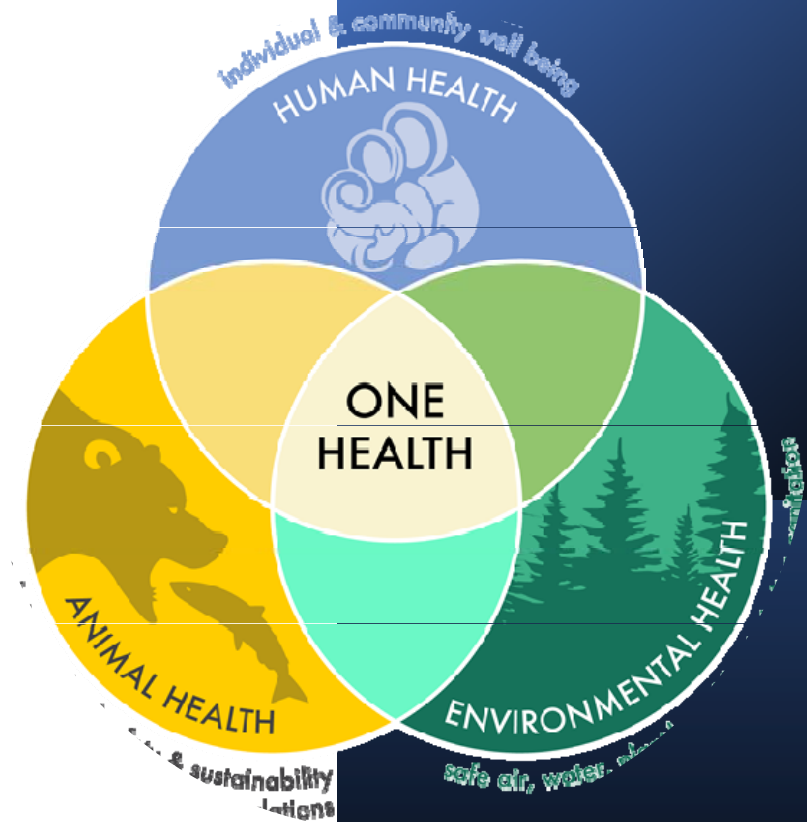
# DAHD initiatives towards Zoonotic Diseases and AMR

**Presented by :**

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# LIVESTOCK WEALTH OF INDIA

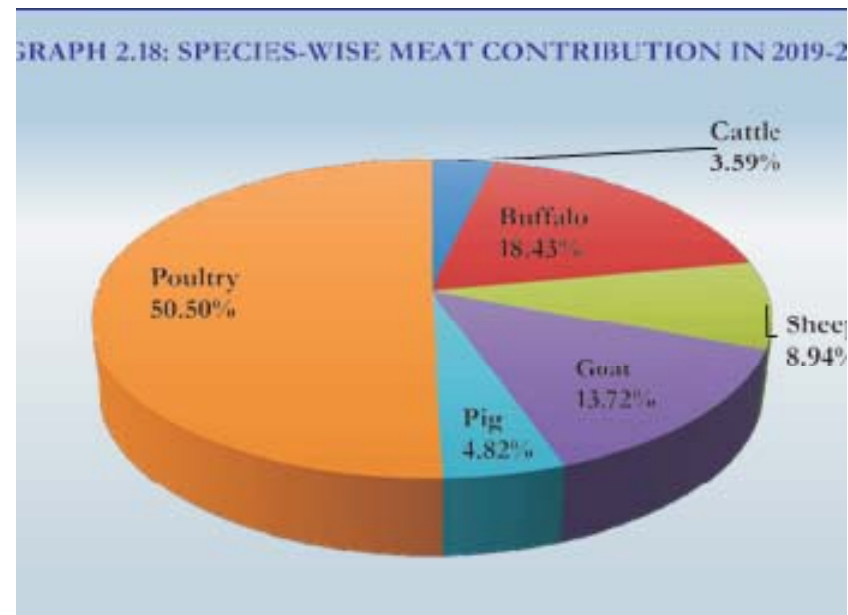
## Total Livestock population : 536.76 Million

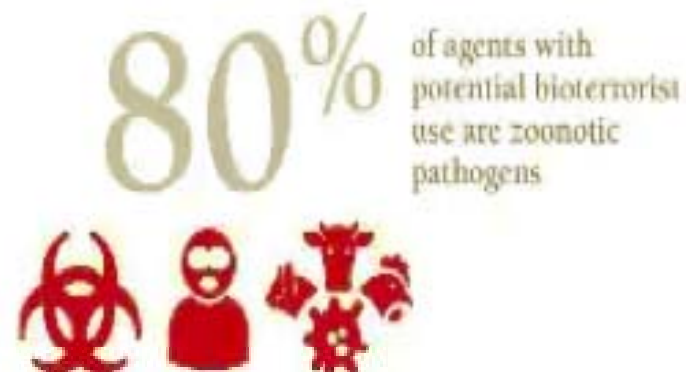
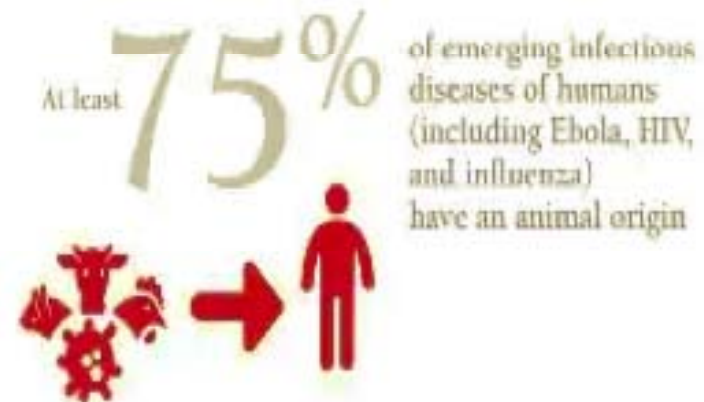
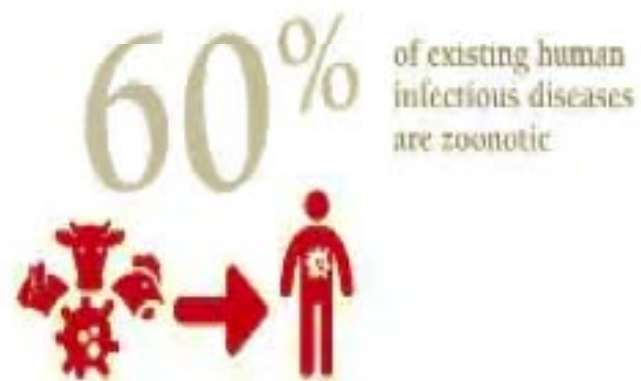
- **Buffalo Population:** 109.85 Million
- **Cattle Population:** 193.46 Million
- **Goat Population:** 148.88 Million
- **Sheep Population:** 74.26 Million
- **Pig population:** 9.06 Million

**Poultry: 851.81Million**

# Meat , Milk and Egg Contribution

- Milk production – 209.95 Million tones/year
- Total egg production is 122.04 billion numbers
- Total meat production is 8.79 Million tons





# Why are zoonoses important?

- **Economic consequences-** food supply, Import/export, production loss, death
- **Potential for rapid global spread**
- **Possible pathogens in**  
biological warfare/ terror often zoonotic (e.g. Anthrax)



# Livestock health & Disease Control Programme (LHDCP)

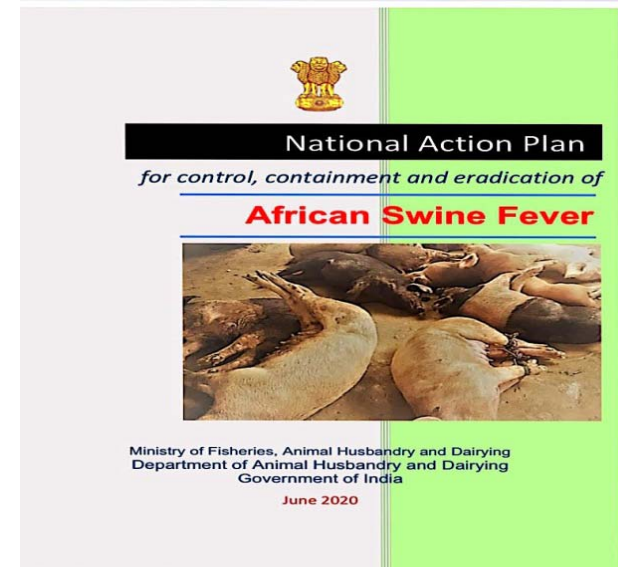
- Department implements LHDCP with the aim of reducing risk to animal health by prophylactic vaccination against diseases of animals, capacity building, disease surveillance and strengthening veterinary infrastructure.
- The major activities supported are: Critical Animal Disease Control Programme (CADCP) for eradication and control of two major diseases namely Peste des Petits Ruminants (PPR) and classical swine fever (CSF); establishment and strengthening of mobile veterinary units (ESVHD); and Assistance to States for control of other economically important, exotic, emergent and zoonotic animal diseases (ASCAD).
- For control of Foot and Mouth Disease (FMD) and Brucellosis the Department is also implementing the National Animal Disease Control Programme (NADCP).

# National Action plan

## March, 2015 Action Plan of Animal Husbandry for Preparedness, Control and Containment of Avian Influenza



  
Government of India  
Ministry of Agriculture  
Department of Animal Husbandry, Dairying and Fisheries



Glanders (NAP)

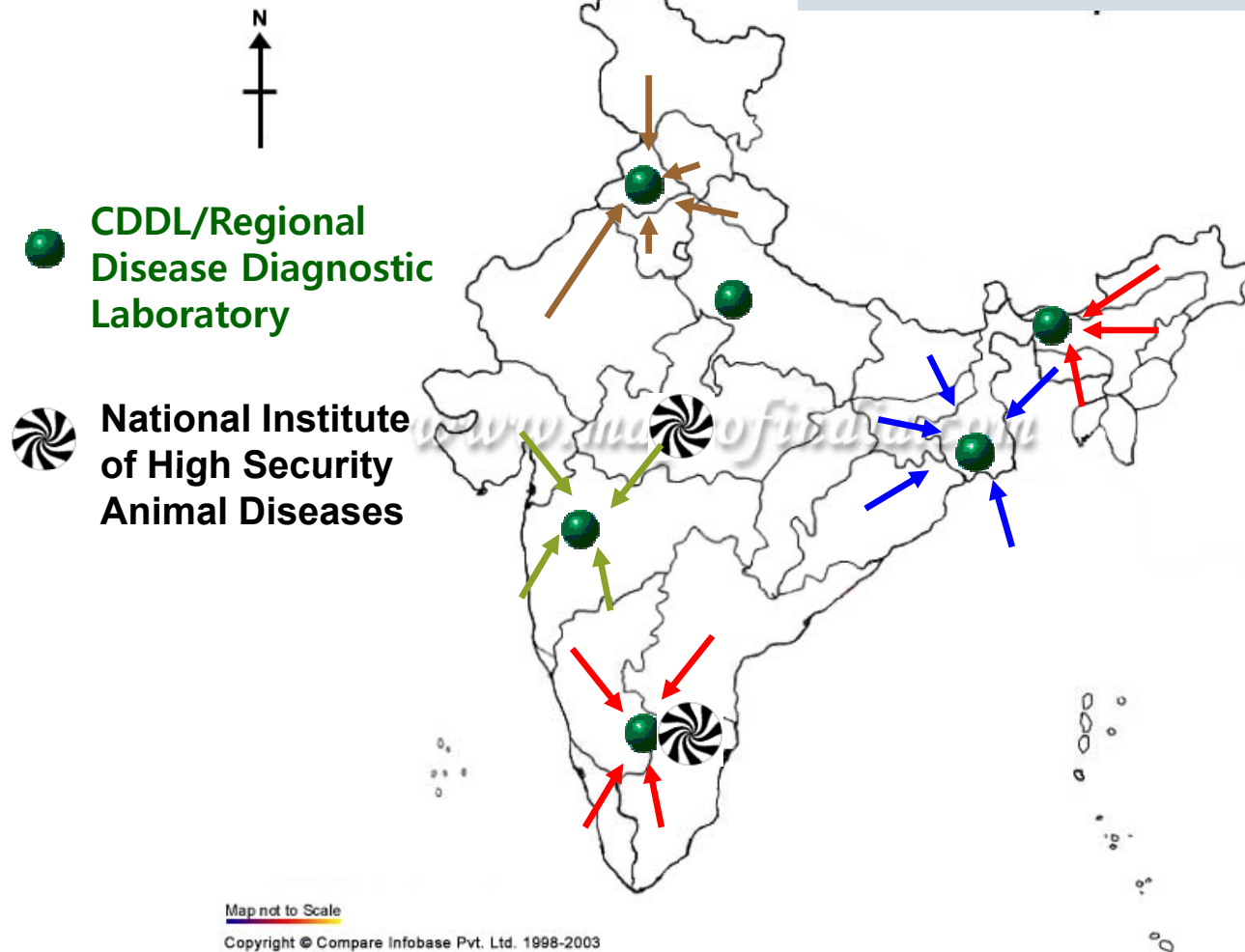


## Veterinary Service Infrastructure

- Veterinary Hospitals/Polyclinics - **11,959**
- Veterinary Dispensaries - **25,850**
- Veterinary Aid Centre/Mobile Dispensaries **27,949**

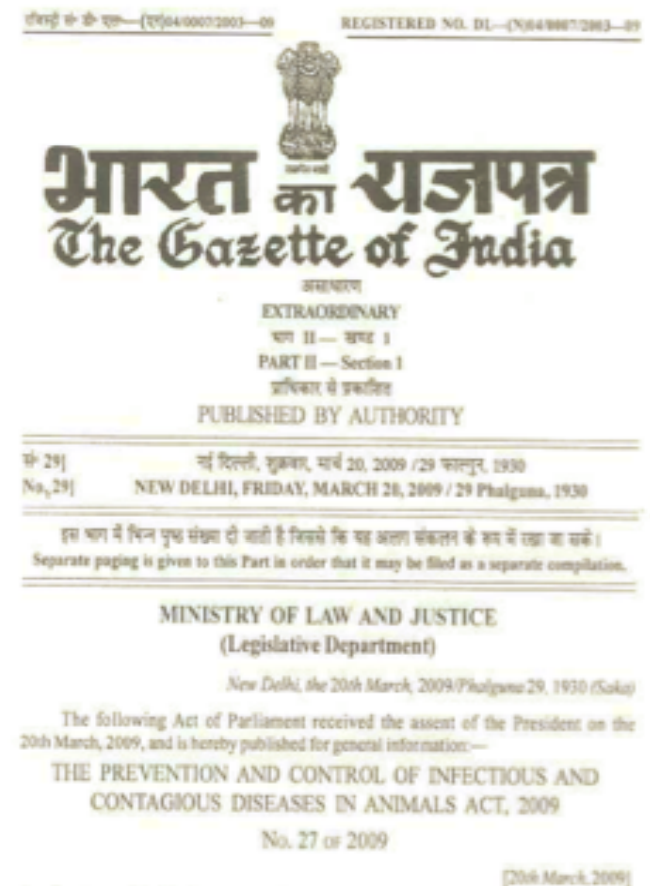


## Network of laboratories



# LEGISLATIVE BACKUP

- There are adequate legislative backup for livestock sector
  - **The Prevention & Control of Infectious and Contagious Diseases in Animals Act, 2009'**
    - To prevent spread of economically important infectious and contagious diseases from one part of the country to another.
    - To control animal diseases of public health significance on a national basis and promote import and export of animals and animal products by meeting India's international obligations.



## Legislative shield.....(Contd..)


- The provisions of the Act strengthen the power of the State Governments to effectively tackle, control and eradicate the animal diseases.
- **Other Acts:**
- **Indian Veterinary Council Act, 1984** - regulates veterinary practice and veterinary education
- **Livestock Importation (Amendment) Act, 2001** - provides modalities for International Animal Health Certification.

# Animal Quarantine stations

- **Located at**
  - **Delhi,**
  - **Mumbai,**
  - **Kolkata,**
  - **Chennai,**
  - **Bangalore**
  - **Hyderabad**

**Compulsory  
Quarantine and  
testing for exotic  
diseases.**



A close-up photograph of various colorful pills and capsules scattered on a light surface. The pills include round tablets in shades of blue, green, yellow, and red, as well as capsules in pink, white, and teal. The text "ONE HEALTH APPROACH....." is overlaid in white, sans-serif font across the upper middle of the image.

ONE HEALTH APPROACH.....

Antimicrobial Resistance

# AMR and its consequences

- AMR occurs when a microbe which causes infection does not respond to the medicine used to kill it.
- Increased cost of treatment
- Increased morbidity and mortality
- Estimated 0.7 million deaths annually due to AMR to reach 10 million by 2050.
- 100 Trillion \$ US loss to global economy by 2050

## Challenges

- Inadequately regulated use of antibiotics (human as well as veterinary sector)
- Use of antibiotics as growth promoters in livestock and poultry (AGP)
- Inadequate implementation of regulations (Schedule H-1/Schedule X for human use)
- Inadequate effluent treatment by pharma industry

# Challenges

- Inadequate interaction among clinicians & laboratory experts, Veterinarians, environmentalists
- Lack of co-ordination with different departments w.r.to proper data collection on usage
- Lack of routine tests of animal feed for MRL
- Lack of awareness and proper knowledge on “farm to fork” transmission process
- Inadequate collaborative research
- As such, limited regulation for Antimicrobial Growth Promoters(AGP)



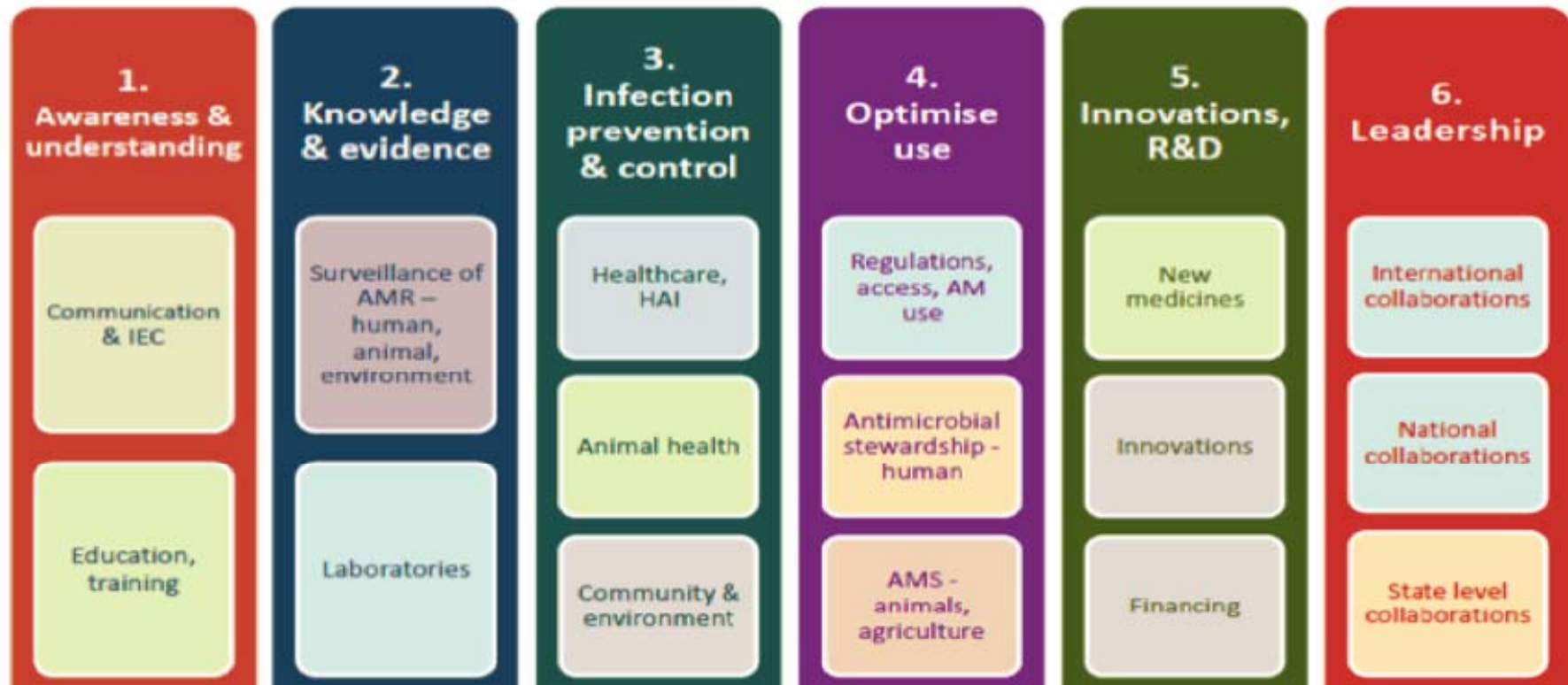
- As per Section 30 on IVC Act., 1984 only a Registered Veterinary Practitioners (RVP) can handle animals for treatment. There is a provision that para-vets also can carry out minor treatment under supervision of RVP
- The Central Drugs Standard Control Organization (CDSCO), Ministry of Health and Family Welfare is responsible for implementing the Regulations for controlling manufacturing, import and marketing of veterinary drugs including antimicrobials as per provisions of Drugs and Cosmetics Act., 1940 and rules framed there under
- As per CDSCO notification dated 17.01.2012, it is mandatory that container of a medicine for treatment of food animals shall be labelled with withdrawal period for the drug for the species on which it is intended to be used

## Current Regulations/guidelines in India

- In 2011, India has formulated National Policy for Containment of Antimicrobial Resistance formulated by Directorate General of Health Services & MoH & FW
- DAHD issued an advisory for prudent use of antibiotic for food producing animals
- Bio-security, Hygiene, Environmental friendly practices are prime important. DAHD issued biosecurity guidelines for CPDO
- Food Safety and Standards Authority of India, has also come up with standards for antibiotics in animal food samples.

## Current Regulations/guidelines in India

# National Action Plan on AMR-India



A blue ribbon graphic with a folded end, containing white text.

## ICAR-INFAAR, the first national AMR surveillance programme in food animals and fisheries

- NFAAR (Indian Network for Fisheries and Animal Antimicrobial Resistance) proposed in a meeting organized by Indian Council of Agriculture Research (ICAR) in collaboration with FAO at Kolkata during 7-8 March 2017

### **OBJECTIVE**

- To conduct AMR surveillance and monitoring in order to understand the status and trend of AMR in different food animals and aquaculture in India.
- To understand the risk factor associated with the emergence and spread of AMR in animals and fisheries to device effective AMR control and containment strategy.

# Ayurveda in the veterinary sector

- A MOU between DAHD and Ministry of AYUSH, on 7th April, 2021 to introduce the concept of Ayurveda and its allied disciplines into veterinary science
- The objective of this cooperation is to develop a regulatory mechanism for the use of Ayurveda in the veterinary sector for the benefit of animal health,
- This would also help rationalize the use of drugs, especially antibiotics, and thereby stall the emergence of antimicrobial resistance (AMR).

## Way Forward

- strengthening surveillance on AMR in a systematic way to assess its magnitude
- Plan strategies for determination of Antimicrobial Usage in Animal Husbandry Sector.
- Educating farmers, animal handlers, vets and consumers regarding the antibiotic treats
- Use of probiotics, prebiotics, essential oils, enzymes, organic acids and toxin binders.
- Regulations for prudent use of Antimicrobials in the Livestock and poultry sector

# Way Forward

- Encourage use of ethno-veterinary medicine
- One health approach
- Adequate allocation of funds for proper implementation of these systems
- Biosecurity of poultry farms .Maintenance of proper hygiene and sanitation
- Doorstep delivery of Veterinary services
- Optimize newer protocols for fixing MRLs in Processed Foods, Which should include pesticide residue levels at various stages of processing.



Thank  
you

