

# STRAY DOG MENACE AS A PUBLIC HEALTH CHALLENGE

MANASI JOSEPH AND DR. JOS CHATHUKULAM

CENTRE FOR RURAL MANAGEMENT (CRM), KOTTAYAM, KERALA



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## STATISTICS ON STRAY DOGS: KERALA AND INDIA

- In 2020 India's stray dog population stood at 35 million. Between 2021- 2023, it reached 60 - 65 million.
- Globally, India has the highest number of stray dogs.
- India accounts for ***36% of global rabies deaths and 65% of rabies deaths in the South-East Asia region.***
- Between 2022 and 2023, dog bite cases increased from 21.8 lakh to 27.5 lakh, according to data tabled by the Ministry of Health and Family Welfare in Parliament.
- According to official data, about 2.9 lakh stray dogs are in Kerala.
- In terms of stray dog bites, it is the sixth in the country. (Sebastian, 2022).

# STATISTICS ON DOG BITES IN KERALA

YEAR	NUMBER OF DOG BITE CASES IN KERALA
2013	62,280
2014	1,19,191
2015	1,21,693
2016	1,35,217
2017	1,35,749
2018	1,48,899
2019	1,61,050
2020	1,60,483
2021	2,21,379

- Between 2013 and 2021, dog bite cases increased from 62,280 to 2,21,379.
- Dog bite cases in Kerala increased by over 200% between 2013 and 2021.
- Data sourced by RTI activists show that 8,09,629 incidents of stray dog attacks were reported in the state from January 2016 to July 2021 (Antony, 2021)

Compiled data based on the data from state government sources and media reports

Note: This includes bites from rabies-infected pet dogs and stray dogs. Kerala has 8.3 lakh domestic dogs

## STATISTICS ON RABIES DEATHS IN KERALA

- Rabies caused by stray dog bites has claimed 47 lives in Kerala in the last four years between January 2020 and January 2024 (The Hindu, May 5, 2024).
- The number of people who have sought treatment across the State for stray dog bites has also progressively gone up in the last four years.
- While 1.6 lakh people sought treatment in 2020, it rose to 2.21 lakh in 2021, 2.88 lakh in 2022 and 3.06 lakh in 2023. In the first month of 2024 alone, 26,060 people sought treatment for stray dog bite.
- Stray dog bites leading to rabies deaths despite vaccination in Kerala have raised several eyebrows, with questions on the efficacy of shots and whether proper protocol is being followed while treating bites.

## **STRAY DOG MENACE AS A PUBLIC HEALTH ISSUE IN KERALA**

- Overpopulation of stray dogs is an important animal welfare and public health concern.
- Stray dogs transmit many important zoonotic pathogens.
- Experts have pointed out that unscientific waste management is one of the reasons
- High numbers of stray dogs are due to large amounts of edible waste available on the streets, cultural tolerance of stray dogs and a lack of consistently employed sustained birth control programs.
- Rabies caused by stray dog bites has claimed 47 lives in Kerala in the last four years between January 2020 and January 2024.
- While vaccination is critical, several other factors in the treatment of a dog bite play a key role in the patient outcome.

## **STRAY DOG MENACE AS A PUBLIC HEALTH ISSUE IN KERALA**

- Six people who took anti-rabies serum (immunoglobulin) and rabies vaccines after stray dog attacks died in Kerala in 2022. Though initially the efficacy of the vaccine was raised as a problem, an investigation by an expert panel found that improper and delayed treatment resulted in it (Kaul, 2022).
- Bites in rich nerve-supply areas require immediate attention and multiple wounds allow the virus to attack the brain from several fronts. A bite on the neck or head vastly reduces the distance the virus has to travel to reach the brain and failure to wash thoroughly and promptly increases the virus' chances of survival.
- Stray dogs also cause traffic accidents

# STRAY DOG MANAGEMENT IN KERALA

- **Catch, Neuter, Vaccinate, Release – The Present System**
- Animal Birth Control Centres (ABCs): The state has around 20 functional ABC centers.
- Plans to set up 25 more ABC centers.
- The Animal Husbandry Department and the Local Self Government Department (LSGD) have decided to set up ABC centers at selected government veterinary hospitals in the state.
- Kerala is the only State with a judicial body to deal exclusively with compensation for people affected by strays: the Justice Siri Jagan committee.

# STRAY DOG MANAGEMENT IN KERALA

- Statewide anti-rabies vaccination drive for dogs.
- 37,000 stray dogs were vaccinated in Kerala (Between September 2022 and August 2023).
- 17, 895 stray dogs have been sterilized between September 2022 to June 2023
- As many as 5.1 lakh pet dogs have been vaccinated (Between September 2022 and August 2023).
- Experts say that the state should achieve at least 70 percent vaccination coverage to achieve herd immunity and eradicate rabies.
- **Mobile vaccination units for stray dogs** (Rabies Free Kollam Project – to eliminate stray dog attacks in the district by 2030).
- **Dog catcher training** - According to the animal husbandry department, it has trained about 450 dog catchers.



# LOCAL GOVERNMENTS and STRAY DOG MANAGEMENT IN KERALA

- Local Governments have to submit stray dog vaccination projects.
- It has been reported that only 212 local self-government institutions have submitted it (Mohan, 2023).
- Local governments in Kerala have spent more than Rs 23 crore on animal birth control projects between 2016 -17 to 2020-21.

# LOCAL GOVERNMENTS and STRAY DOG MANAGEMENT IN KERALA

Year	Amount spent on Animal Birth Control
2016-17	Rs. 3,59,09, 914
2017-18	Rs. 4,07,74,363
2018-19	Rs. 4,74,94,117
2019 -20	Rs. 6,10,53,174
2020-21	Rs. 4,82,14,055

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# WHO MODEL OF STRAY DOG MANAGEMENT

In 1990 the World Health Organisation released a report stating that the most effective method of population control among stray dogs is a combination of:

1. Sterilization (at least 70% of the female dogs).
2. Education (responsible dog ownership, breeding).
3. Registration (identification of both animal and owner).

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# NETHERLANDS MODEL OF STRAY DOG MANAGEMENT

The Netherlands was home to an ever-increasing population of stray dogs, but through vigorous sterilization programs, animal welfare laws, and improved attitudes of the public towards dogs, and animals in general, the Netherlands managed to halt the menace.

Organized vaccination and sterilization through CNVR programs (catch, neuter, vaccinate, return)

# NETHERLANDS MODEL OF STRAY DOG MANAGEMENT

- 1. Nationwide Neutering Program** -This initiative aimed to control the dog population humanely. The government subsidized these procedures, making them free or affordable, which was crucial in encouraging widespread public participation.
- 2. Education and Awareness: Shifting Public Perception:** Education played a vital role in changing public attitudes towards stray dogs. The government and animal welfare organizations launched campaigns to raise awareness about the plight of strays and the importance of responsible pet ownership. They emphasized the benefits of adopting shelter dogs, which helped to foster a culture of compassion and action.
- 3. Robust Sheltering System:** It provided a haven for stray and abandoned dogs. These shelters were not merely holding spaces but places where dogs received medical care, rehabilitation, and the chance for a new life through adoption. The government's support of these shelters was instrumental in their success.

# NETHERLANDS MODEL OF STRAY DOG MANAGEMENT

**4. No-Kill Policy:** A no-kill policy was adopted by all shelters, ensuring that the eradication of stray dogs would not come at the cost of their lives. This policy was not only humane but also changed the public's mindset about the value of a dog's life, regardless of its breed, age, or health status.

**5. Financial Incentives for Pet Owners:** The government abolished the dog tax, which had been a financial burden for many pet owners. This action removed a potential motive for individuals to abandon their pets, as the cost of keeping a dog became more manageable for the average household.

**6. Strict Breeding Regulations: Ensuring Responsible Practices:** Breeders were required to adhere to ethical practices, and the sale of puppies was closely monitored to prevent illegal breeding operations.

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# NETHERLANDS MODEL OF STRAY DOG MANAGEMENT

**7. Community Engagement:** Citizens were encouraged to report cases of stray dogs or mistreatment. This collective vigilance ensured that dogs in need were promptly assisted and that irresponsible owners were held accountable.

**8. Treated Stray Dog Menace as a Public Health Challenge:** The eradication of stray dogs also had a significant impact on public health. With fewer strays, the risks of traffic accidents, bites, and the spread of diseases were greatly reduced, creating a safer environment for both humans and animals.

# NETHERLANDS MODEL OF STRAY DOG MANAGEMENT

The comprehensive approach to eradicating stray dogs in the Netherlands serves as a blueprint for other countries grappling with similar issues. By combining legislation, education, and community engagement, it is possible to address the stray dog problem effectively and humanely in Kerala and India.

The Netherlands succeeded due to its comprehensive legislative framework. The government enacted laws that made it illegal to abuse or abandon a dog, ensuring that the welfare of these animals was safeguarded by the full extent of the law. This bold legal step was the cornerstone of their strategy, sending a clear message that the mistreatment of dogs would not be tolerated.



# BHUTAN MODEL OF STRAY DOG MANAGEMENT

- The Royal Government of Bhutan has historically struggled with street dog-related issues such as dog bites and rabies.
- Bhutan sought a humane solution in alignment with its national Buddhist values.
- The Bhutan government reached out to Humane Society International's (HIS) team for support and guidance.
- In 2009, the Bhutan government and HIS jointly crafted a humane, holistic, and sustainable model for free-roaming dogs that ensured both the health and welfare of the dogs and a peaceful coexistence between dogs and people.

# BHUTAN MODEL OF STRAY DOG MANAGEMENT

- The pilot program in Thimphu began in February 2009. In a matter of four months, the program sterilized more than 2,800 dogs.
- Today, more than 153,000 dogs in Bhutan have been vaccinated and sterilized, and more than 31,000 pets have been registered and micro-chipped.
- Estimates suggest that the program has achieved nearly 100% sterilization of all street dogs in the country

# BHUTAN MODEL OF STRAY DOG MANAGEMENT

- HSI staff members trained dozens of Bhutanese veterinarians and animal handlers, who in turn went on to train thousands of volunteers and hundreds of government staff. They persisted day in and day out, walking through mountains and hillsides, identifying unsterilized dogs, and encouraging residents to bring them to district clinics for sterilizing and vaccination.
- The government also developed **its mobile application** called the **Veterinary Information System** to help track both street and owned dogs.
- In addition, Livestock Rules were amended to encourage responsible pet ownership and set up a helpline to offer communities a chance to share concerns, learn more about the program, and report on the presence of unsterilized and unvaccinated roaming dogs.

# BHUTAN MODEL OF STRAY DOG MANAGEMENT

- Mobilized more than 11,000 volunteers across the country for dog management program
- The National Dog Management-Rabies Control Program in Bhutan is a groundbreaking effort as it is one of the longest and most effective free-roaming dog sterilization and vaccination programs in all of Asia.
- Engaging and empowering local communities in the humane treatment of street dogs was a key element in the successful street dog program in Bhutan.
- There is much to be learned from Bhutan including its determination and compassion to create a more peaceful coexistence for people and dogs alike.

# GOAN MODEL OF STRAY DOG MANAGEMENT

- Goa has become the first state in India to eliminate dog-mediated rabies, with no cases since 2018 (Uniyal, 2022).
- The project was led by the NGO Mission Rabies.
- Consists of remote teams of dog vaccinators, who systematically work their way through towns and villages vaccinating dogs.
- This involves catching street dogs in large nets, vaccinating them, marking them in non-toxic green paint, and then releasing them again.
- Their progress is recorded in a smartphone app, which collects data on dog sightings, geographical areas covered by the team, and the details of the vaccinated dogs.

# GOAN MODEL OF STRAY DOG MANAGEMENT

- A 70% dog vaccination coverage rate was achieved for the first time in 2017 using this method, with 97,277 dogs out of an estimated total population of 137,353 dogs vaccinated.
- Smartphone technology enabled systematic spatial direction of remote teams to vaccinate over 97,277 dogs.
- School-based rabies education classes were delivered to 694,271 schoolchildren and 31,251 teachers.
- An estimated 2249 disability-adjusted life years (DALYs) were averted over the program period (2013 -2017) at 526 USD per DALY, making the intervention 'very cost-effective (Gibson et al., 2022)

# SUGGESTIONS AND RECOMMENDATIONS (STATE CAPACITY FRAMEWORK)

- Accept and Acknowledge Stray Dog Menace as a Serious Public Health Issue
- Conduct state-wide mass awareness campaigns.
- Enforce Scientific Waste Management
- Responsible Pet Ownership
- Enforce strict registration and licensing of pet dogs.
- Incorporate positive models of dog management as in the case of the Netherlands, Bhutan, and Goa.
- Promote the adoption of sterilized dogs from state-run/civil societies operating dog shelters.
- **Catch – Neuter- Vaccinate – Adopt**

# SUGGESTIONS AND RECOMMENDATIONS

- Kerala should revive its Early Neutering in Dogs (END) program which moots for sterilizing stray puppies and giving them up for adoption.
- If the END project goes hand-in-hand with the existing Animal Birth Control (ABC) project, then the uncontrolled birth of stray dogs can be prevented.
- Develop a **humane and compassionate approach** to dogs and animals in general.
- Fostering collaboration and coordination between concerned stakeholders including local governments, civil society groups, resident associations animal husbandry department, and veterinary doctors.
- Dogs are eventually 'people' animals and any solution to a dog-related problem has to center around people



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# SUGGESTIONS AND RECOMMENDATIONS

Kerala had the state capacity to successfully implement the Total Literacy Campaign, and People's Plan Campaign.

Why can't Kerala use the state capacity, particularly the state-society synergy framework effectively to eliminate the stray dog menace in a time-bound manner?

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**THANK YOU**

