



**Remaking
One Health**
Indies

Perspectives on Human-Dog Conflict

Media Convening

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Introduction

Any one instance of conflict between a dog and human can result in tragic consequences for all those involved. However, the story does not begin and end at the moment of conflict. Every case of conflict has a micro-context of how the particular set of interactions came to be, as well a macro-context that connects with wider matters, including rabies and bites prevention, dog control and culling, and the nature of everyday people-dog interactions.

Media portrayals have the power to shape public opinion and policy decisions in a significant manner and especially so in the case of emotive issues such as human-dog relations. In an environment where many people espouse very strongly held opinions about the presence of dogs in our cities, journalists have an important role to play in producing comprehensive and well-informed reports that deter knee-jerk and reactionary responses, and even more crucially, that provide a foundation for constructive discussion and considered action.

This dossier contains a selection of factual and scientific resources on issues relating to street dogs. It includes nationally and regionally relevant information as well as guidance on the questions and issues to consider while investigating and reporting on human-dog conflict. The aim is to provide a toolkit for reporting on issues relating to street dogs in manners that enable meaningful public debate and policy actions.

Key information

This section provides important information on key elements relating to human-dog conflict and strategies to address the same. This will include data relating to rabies incidence in India, dog bite statistics, measures to address human-dog conflict and to manage dog populations, the lay of the legal landscape, and scientific research relating to the most common forms of human-street dog interactions. The emphasis here will be on datasets that convey the longer-term trajectories of each of these matters.

The incidence of rabies

- India accounts for over an estimated **1/3rd of global human rabies deaths**.
- **The exact number of human rabies deaths is not available**. Estimates based on statistical modeling indicate there could be around 18,000-20,000 human rabies deaths every year. In terms of reported deaths, The Central Bureau of Health Intelligence's 2023 [National Health Profile](#) reports 43 deaths due to rabies in the year 2021 and 28 in the year 2022 across the country.
- In the period from 2005 - 2020, there has been a **steady decline in reported human mortality due to rabies** (from 2.36 to 0.41 per 10 million population).
- In 2021, **India declared human rabies notifiable**, to ensure more accurate rabies incidence data, which is crucial for developing and implementing effective prevention and control measures.

As it stands, it remains unclear whether the difference between reported and estimated rabies deaths is because of under-reporting or inaccurate estimation based on modeling and incorrect assumptions or a combination of the two. **It is important to bear in mind this caveat about the quality of data and estimates as we consider the statistics in the following sections.**

According to a [study](#) of rabies trends using data from the National Health Profile (NHP), a collection of state-wise monthly health condition reports, 2863 rabies cases in India were reported between 2005 and 2020.

- **Five states contributed to over three-fourths of the total burden:** West Bengal (43%), Andhra Pradesh (10%), Maharashtra (8%), Karnataka (7%) and Delhi (6%)
- Reported rabies cases in the National Health Profile of India by states and union territories, 2005-2020:

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Tamil Nadu	N	N	N	3	3	2	42	28	4	4	1	1	3	6	6	4	107
India	259	343	243	259	263	181	253	212	132	125	113	93	111	116	105	55	2863

N - Not reported

This longitudinal data (up till 2020) suggests that Tamil Nadu has been performing reasonably well in its rabies prevention efforts, when assessed alongside other states of comparable size. Rajasthan for instance, has performed far better while West Bengal carries an inordinately high rabies burden. **On a broad level, Tamil Nadu’s relative success points to the importance of investment in a [coordinated rabies control programme](#) - involving public health and municipal agencies.**

The incidence of rabies is often the main subject-matter of media coverage and public debates around street dogs. It is therefore important to bear in mind the long-term positive trajectory of reported rabies incidence in India and ensure that reporting on people-dog conflict and its public health ramifications provide comprehensive factual context.

Data on dog bites

Another set of concerns are dog bites and problems like chasing. This section presents year-on-year data on the number of reported dog bites in the country and in Tamil Nadu.

Number of Dog (pet and street) bites, 2018-2023

	2018	2019	2020	2021	2022	2023
Tamil Nadu	7,70,979	8,31,044	7,66,988	3,23,190	3,64,210	4,04,488
India	75,66,467	72,69,410	47,58,041	32,35,595	21,80,185	27,59,758

[Rajya Sabha unstarred question 1058]

This data from the Ministry of Health and Family Welfare suggests **a mostly declining trend in the number of dog bites across the country and in Tamil Nadu from 2018 onwards**. Even though the data show an increase over the last two years, in comparison to 2018, the overall number of bites since 2021 are much lower. It is important to note that government data on dog bites is **not disaggregated for pet dog bites and street dog bites**; very often, scratches and/or the bites of other animals are also recorded as dog bites. At the hospital level, some hospitals and medical centres maintain records that distinguish between various bite sources, but when it gets aggregated at the state level, the distinction is lost.

Deaths due to mauling by street dogs are a rare but serious problem. The recent years have seen mainstream and social media reports and public outcries about such deaths. However, it remains unclear whether these are a new occurrence or whether previously such deaths went unnoted. There is no long-term data available on the incidence and causes of this problem.

Street dog population numbers

The population figures of street dogs, among many other animals, are released in the Livestock Census report by the Ministry of Fisheries, Animal Husbandry & Dairying once every 5 years. The last one was conducted in 2019 and the next census is scheduled for later in 2024.

According to the [2012](#) and [2019](#) Livestock Censuses carried out by the Department of Animal Husbandry and Dairying, Government of India:

- The overall number of street dogs of 1,71,38,349 in 2012 had reduced to around 1,53,09,355 in 2019.

- Street dog populations has declined in the majority of states in the country but increased in 17 states including Maharashtra and Karnataka.
- Uttar Pradesh and Karnataka had the highest numbers of free-ranging dogs in 2019.
- **In Tamil Nadu, the number of street dogs dropped from 6,47,798 in 2012 to 4,41,208 in 2019**

Street dog population management

The legal, and World Organisation for Animal Health recommended, way of managing street dog populations is through Animal Birth Control and vaccination programmes (ABC-ARV).

ABC-ARV programmes catch street dogs, surgically sterilize, and vaccinate the dogs against rabies, and release them back in the exact location from where they came. This is an extremely resource- and skillintensive process, accounting for the number of training veterinarians needed to administer the surgeries and vaccinations, not to mention the complexity involved in catching and confining large numbers of dogs.

ABC-ARV is one of the most hotly debated issues when it comes to street dogs. However, there is general agreement that a well-implemented ABC-ARV programme results in more stable street dog population sizes, and more friendly and rabies-free dogs, with a gradual decrease in dog numbers over a period of time, such as in South Mumbai. The ABC-ARV programme being conducted in [Jaipur](#), which commenced in 1994 and continues to this day, has been similarly successful in stabilizing the city's street dog population and in controlling the spread of rabies.

[Evidence](#) from across the world indicates that animal birth control programmes are more effective in reducing dog population sizes than culling. In the Indian context, it is worth noting that more than a hundred years of culling of street dogs, which was introduced in the late 1800s and continued to be the main dog population control strategy till 2001, was not successful in eliminating or reducing street dog populations, or in combating rabies. This is because culling or dog removal results in the movement of dogs from other places to fill the ecological niche vacated by the culled/removed dogs, with knock-on negative impacts such as greater conflict.

Natural evolutionary population control mechanisms also regulate population sizes. For instance, mortality rates are quite high among street dogs, especially [puppies](#), which means that birth rates don't automatically lead to equivalent street dog population increases. The size of dog populations is also directly influenced by the availability of resources such as food.

ABC-ARV programmes are not a silver bullet solution to all concerns relating to street dogs. Rather, **they form one part of a multipronged strategy for healthy and safe people-dog interactions.**

Rabies prevention

India's National Rabies Control Programme (NRCP) aims to eliminate Rabies by 2030. Human rabies prevention requires two sets of interventions.

The first pertains to bite prevention and appropriate post-bite treatment. Under the National Rabies Control Programme, **anti-rabies vaccinations and rabies immunoglobulins** have been included in the Essential Medicines list to be stocked in all health care facilities. However, there is a need for **significant improvement** in **wound washing** practices, seeking of appropriate post-exposure treatment and vaccination, and of complying with the requisite vaccination schedules. The development and implementation of **bite prevention** awareness is also a **neglected** area.

The second set of interventions pertains to dogs. For human rabies prevention, **mass dog vaccination (MDV)** has proven to be an effective tool, amongst other measures. Take the example of Goa, which initiated a State Rabies Control Programme in 2015 in partnership with Mission Rabies. The programme consisted of three elements: 1) Mass Dog Vaccination, 2) Rabies Surveillance, and 3) Education and Awareness.

The data collected between 2014-2022 by the Government of Goa shows that in the seven years of the implementation of the programme, Goa did not have a single reported case of human rabies from 2018 till late 2023.

Data summarising the outcomes of Goa's State Rabies Control Programme

#	Year	Human Rabies Cases	Animal Brain Tissues tested	Dog Rabies Cases	No. of dogs vaccinated	Children educated on rabies	Community people reached
1.	2014	17	94	74	24,306	72,744	1,122
2.	2015	5	45	39	56,681	40,070	25,205
3.	2016	1	78	64	51,294	62,782	23,012

4.	2017	2	132	81	96,033	1,69,222	22,293
5.	2018	0	73	29	97,368	1,72,513	52,503
6.	2019	0	130	9	96,176	1,70,107	30,944
7.	2020	0	175	24	82,012	2,13,735	17,624
8.	2021	0	108	8	75,917	2,14,352	1,27,351
9.	2022	0	79	2	39,619	1,01,929	20,588

Prevention of dog bites, chasing and attacks

In addition to mass dog vaccination and animal birth control, the prevention of dog bites, chasing and attacks needs different strategies focused on education and awareness. Such strategies could be modeled on [snake bite prevention and awareness](#) or road safety programmes. While the National Rabies Control Programme includes [dog bite prevention](#) among its activities, this remains a marginal activity. There is a need for a greater emphasis on developing and implementing education and awareness about [safety around street dogs](#).

The legal landscape

The primary legislation that governs issues relating to street dogs in India is the Animal Birth Control Rules (2001/2023) which requires local authorities to implement neutering and vaccination programmes if they wish to manage street dog populations.

The 2023 amendment to the Animal Birth Control Rules, contains important provisions relating to ABC programmes for street dogs, public feeding of street dogs, and cases in which euthanasia of dogs may be permitted. Refer to this [article](#) for a useful legal primer on the Animal Birth Control Rules, 2023.

Apart from the ABC Rules, there are other patchwork provisions to govern issues relating to dogs. A recent [example](#) is the circular issued by the central Ministry of Fisheries, Animal Husbandry and Dairying prohibiting the import, breeding, and selling of 24 “ferocious” dog breeds. This

particular regulation, however, has been stayed by different High Courts. In addition, Courts adjudicate on specific subjects relating to street dog conflict management. Cases also arise in response to petitions from groups such as representatives from the breeding industry, resident welfare associations or animal rights groups.

Everyday interactions with street dogs

News media tend to report mainly incidents of extreme or severe conflict such as rabies or mauling. This is quite understandable as such incidents can have serious consequences. However, **it is important to also bear in mind that everyday realities of human-street dog interaction are far more multidimensional** - ranging from neutral or positive interactions to more minor forms of conflict, such as chasing of vehicles, night-time barking, or fights between dogs.

For balance, it is also worth covering positive/neutral interactions as these constitute the majority of human-dog interactions. Ongoing [research](#) by [ROH-Indies](#), based on interviews with the general public in different parts of the country, finds that **the predominant attitude among people interviewed is that “street dogs are simply part of the background.”** Further, [research](#) by the [Dog Lab](#) on the behaviour patterns of free-ranging dogs found that “dogs are generally lazy and friendly animals, and their rare interactions with humans are typically submissive.”

ROH-Indies research in [Chennai](#) highlights certain distinctive contextual elements of people-dog relationships, showing that **“public perceptions of street dogs are more complex than either positive or negative. Street dogs are seen as posing risks or as nuisances. Yet, there is a recognition of these animals as vulnerable (or *paavam*) creatures that belong in the city even though they are not ‘owned’ by people.”** Notably, the study also found that rabies was rarely cited explicitly as a concern among members of the public in Chennai, with more common complaints being about barking, chasing and biting. A majority of the people surveyed also reported having cared for street dogs, most commonly by offering food or water.

Reporting on human-dog conflict could therefore be usefully situated within this larger context, and take into consideration this multidimensional nature of human-street dog interactions.

Media reporting on street dogs: Some considerations

When it comes to reporting on human-dog conflict, the media has a key role in enabling the effective resolution of problems. ROH-Indies [research](#) shows that media reportage tends to over-emphasize certain issues of conflict such as mauling, rabies, ABC-ARV and controversies around public feeding. On the other hand, there is a scarcity of media attention to important considerations such as education and awareness, human post-exposure prophylaxis, or the long-term achievements of national rabies prevention efforts.

Further, stories that frame dogs as a menace and a constant threat, paint a false picture of the actual state of affairs. Scientific research as well as our own daily interactions attest to the fact that most interactions with the dogs on our streets are unremarkable and not newsworthy stories.

Skewed media cover has knock-on impacts by triggering knee-jerk responses by the public as well the government, typically culling or capture/removal/relocation (often of friendly, neutered dogs that are trusting of people), or sporadic, complaint-based control. This generates further problems because such **responses do not take into account street dog ecology, and also detracts attention from the sustained, well-planned, and multi-dimensional strategies that are needed to enable safe people-dog interactions.**

It is with this perspective that we approach this section on some best practices in media portrayals of and reporting on human-dog conflict and interactions.

- A story of human-dog conflict does not begin and end at the moment of conflict. For example, there are important factors that lead up to a dog biting a person, such as the environmental conditions (such as food waste), whether the dog was provoked or felt threatened, the circumstances of the bite, or even whether the right dog was identified. While researching the fact-scenario, it is important to investigate the specific situation that led to the bite, to speak to as many witnesses and informants as possible, examine the local environment, and gather other data sources such as CCTV footage. Additionally, and considering the constraints of tight deadlines, inputs from subject matter experts in fields such as behavioural ecology, public health, and the law, can help to offer different perspectives and explanations, and lend credibility to the story. This can help to produce

more **well-rounded reports of such incidents as these are vital to develop a better understanding of why conflict occurs and how to prevent conflict.**

- When discussing solutions, it is important to recognize that measures such as human post-exposure prophylaxis, ABC-ARV, and mass dog vaccination programmes have been successful to a meaningful extent when implemented well. States like Sikkim and Goa provide success stories of ABC-ARV and mass dog vaccination programmes and show that, **when implemented properly, these programmes can help in fostering more peaceful coexistence between dogs and humans.** Similarly, the overall decline in reported rabies mortality in India is testament to the efforts of both dog management and human post-exposure prophylaxis initiatives. Constructive media critiques of programmes like ABC-ARV as a means to control dog populations alongside other interventions, rather than outright dismissal, will be helpful in shaping appropriate policy responses.
- The importance of a multi-dimensional approach that goes beyond dog management to also focus on bite/chasing prevention awareness and post-bite education and prophylaxis could be highlighted and amplified by the media.
- While using images/photographs as a visual aid in a story, editorial care could be taken to avoid presenting images of snarling or ferocious dogs as this automatically builds up a fear in the mind of the reader. The effects of fear-inducing reportage can be seen on social media, where the viral spread of horrifying footage of dog attacks has contributed significantly to more polarised attitudes and knee-jerk responses. Media cover that presents a sober, balanced report of events would be a useful corrective to sensationalised accounts.
- As the issue of human-dog conflict becomes increasingly polarised, it becomes particularly important for the media to consider knee-jerk solutions such as mass culling or confinement in shelters with scepticism. In addition to the cruelty of these kinds of measures, research as well as past experiences of eradication of “pest” species in different parts of the world show that **such measures are neither pragmatic nor effective in reducing human-animal conflict, and that they often have unforeseen ecological impacts.**
- Data and information of the kind provided here can help to contextualize stories or reports within the broader landscape of people-dog interactions in India. Such contextualisation, for instance, about a consistent drop in incidence of rabies, or the nature of most people-dog interactions, or the efficacy of different strategies in addressing different problems, can be key to enabling better public understanding and policy responses.

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