

# Investigating the Need for Animal Welfare Centers in Metropolitan Cities and framing Design Guidelines in the Indian Context

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**Abstract:** This research delves into the importance of establishing Animal Welfare Centers (AWCs) in metropolitan areas of India to address the pressing challenges faced by animals in urban environments. Through an in-depth analysis of the current state of animal welfare, identification of specific needs and challenges, examination of global models of AWCs, and proposal of design guidelines tailored to the Indian context, this study advocates for the implementation of AWCs to promote compassion, responsible pet ownership, and humane treatment of animals. By highlighting the potential benefits of AWCs in managing stray animal populations, addressing animal cruelty, and mitigating public health concerns, this research underscores the importance of collaborative efforts involving government, NGOs, and the public to elevate animal welfare standards in metropolitan cities.

**Keywords:** animal welfare centers, architectural design guidelines, challenges in animal welfare, collaborative solutions, community engagement, metropolitan cities, policy recommendations, potential benefits, shelter conditions, urban pet-friendly infrastructure.

## 1. Introduction

In metropolitan India, the welfare of animals is a growing concern due to urbanization, rising stray populations, and limited veterinary care access. Despite existing infrastructure, challenges such as inadequate resources and a focus on large animals neglect small pet care needs. Establishing Animal Welfare Centers (AWCs) is vital to address these gaps, offering crucial services, shelter, and promoting responsible pet ownership. However, current centers face funding and overcrowding issues. This research advocates for AWC implementation through global model analysis, tailored design guidelines, and highlighting benefits like managing strays and promoting public health. Collaborative efforts are crucial to create a compassionate environment for urban animals and communities.

### A. Aim

This research aims to investigate the necessity of Animal Welfare Centers in metropolitan cities within the Indian context. By understanding the current state of animal welfare,

identifying the challenges faced by animals in urban settings, and assessing the existing infrastructure for animal care, this study seeks to advocate for the implementation of AWCs as a means to promote compassion, responsible pet ownership, and the humane treatment of animals in metropolitan areas.

### B. Objectives

- To assess the current state of animal welfare in metropolitan cities in India.
- To identify the specific needs and challenges faced by animals in urban environments.
- To highlight the potential benefits of AWCs in addressing issues related to stray animal population management, animal cruelty, and public health concerns.
- To examine existing models of Animal Welfare Centers globally and their applicability to the Indian context.
- To propose design guidelines tailored to the Indian context for the establishment of Animal Welfare Centers.

### C. Scope

This research will primarily focus on metropolitan cities in India, considering the unique socio-cultural and environmental factors that influence animal welfare in these urban settings. The scope includes an analysis of existing animal welfare infrastructure, legal frameworks, and public attitudes towards animals in urban areas. Additionally, the study will explore various aspects such as funding mechanisms, partnerships with local authorities, and community involvement in establishing and operating AWCs.

### D. Background and Context

- 1) In India, the provision of medical care to companion animals remains severely underdeveloped. Veterinarians contend with numerous challenges, from inadequate education and infrastructure to low pay and burnout, making their profession exceptionally demanding.
- 2) According to the Veterinary Council of India (VCI), as of 31.03.2023, there are 81,938 Registered Veterinary Practitioners in the country. With a

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livestock population of 500 million and nearly 35 million companion pets, India has just 1 vet per 6530 animals. This ratio is among the lowest globally, underscoring the significant strain on veterinarians in providing care.

- 3) According to the 20th Livestock Census report, as of 31.03.2019, there are 37,726 veterinary hospitals and dispensaries across the country. This translates to a ratio of 1 veterinary institution (comprising hospitals and dispensaries) for every 14,228 animals in the livestock population.
- 4) In India, only 3,000 to 5,000 new veterinarians are added each year, a stark contrast to the 300,000 or more pets welcomed into households annually. Historically, India's economy has been agriculture-driven, prioritizing the care of cattle and farm animals such as cows, buffalo, goats, and sheep. Consequently, the government has emphasized veterinary education, focusing on large animal care. Unfortunately, this has resulted in limited attention to small animal care, including dogs, cats, birds, and other pets, within the veterinary curriculum.
- 5) As per the Government of India's Department of Animal Husbandry & Dairying report dated March 22, 2022, Maharashtra has only 9,971 registered veterinarians and merely 5 veterinary colleges in the state and As per Livestock Census 2019, the Maharashtra State ranks seventh at the All India level with total livestock of about 3.31cr. These numbers highlight a critical imbalance in veterinary healthcare with a notable deficit in both trained professionals and educational institutions.

In this scenario, animal welfare centers and NGOs step in to fill the gap by providing essential healthcare services, shelter, and rehabilitation to animals.

An animal welfare center is a facility dedicated to the well-being and care of animals. These centers typically provide shelter, medical treatment, and other necessary services for animals in need, including those that are abandoned, abused, or neglected. They may also offer adoption services, educational programs, and advocacy efforts to promote responsible pet ownership and improve the overall welfare of animals in the community. The primary goal of an animal welfare center is to ensure the physical and emotional health of animals and to work towards preventing cruelty and suffering.

Overall, animal welfare centers and rescue NGOs serve as lifelines for animals in India, particularly in urban areas where the need for veterinary care and support is most acute. They alleviate the burden on the limited veterinary resources available and work towards creating a more compassionate society for both animals and humans.

#### E. Statement of Problem

- 1) Companion Animal Care Underdevelopment: India faces severe challenges in providing medical care to companion animals, including inadequate education and infrastructure for veterinarians, low pay, and

burnout. This highlights the need for dedicated organizations to fill the gap in providing essential healthcare services.

- 2) Low Veterinarian-to-Animal Ratio: With just one veterinarian for every 6,530 animals in India, the shortage of veterinary professionals exacerbates challenges in providing adequate care to both livestock and companion animals. NGOs and animal welfare centers play a crucial role in supplementing veterinary services.
- 3) Limited Veterinary Infrastructure: Despite existing veterinary hospitals and dispensaries, there is still a significant lack of infrastructure to meet the healthcare needs of animals in India. NGOs and animal welfare centers can bridge this gap by providing additional facilities and services.
- 4) Emphasis on Large Animal Care: Historically, India has focused on large animal care in veterinary education, neglecting small animal care. NGOs and animal welfare centers specializing in small animal care can address this gap by promoting awareness and education.

In summary, NGOs and animal welfare centers play a critical role in addressing challenges and gaps in veterinary care and infrastructure across India. They complement existing services, provide specialized care, raise awareness, and advocate for animal welfare policies to improve overall well-being.

## 2. Literature Review

*Analysis of metropolitan cities of India based on how pet-friendly they are*

In 2019 a Pet Parents Survey was conducted by LANA Paws in the metro cities of India with more than 1500 pet parents.

- **70.9%** of the total respondents said their city was moderately pet-friendly, which means some areas in their city had good access to quality pet services while some did not.
- **14.5%** of the total respondents said their city was not at all pet-friendly.
- **12.4%** of the total respondents rated their cities as very pet-friendly.
- Over **58%** of the respondents said that there were no pet-friendly public spaces (such as parks and/or cafes) in their neighborhoods.
- Even when it comes to neighborhood parks, **28.7%** said dogs were not allowed in their neighborhood park and **28.2%** said there were no parks in their neighbourhood.

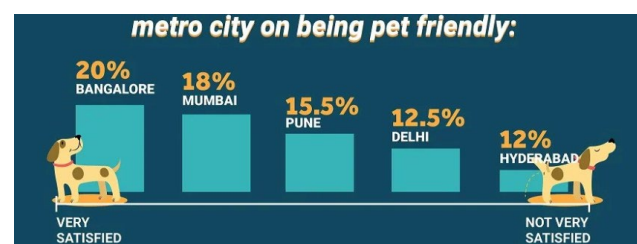


Fig. 1. Statistics of Indian cities on being pet friendly

*Shelter condition analysis of Pune city*

- Both the Pune Municipal Corporation (PMC) and Pimpri-Chinchwad Municipal Corporation (PCMC) currently lack official shelters for strays. Instead, they operate centers or dog pounds primarily dedicated to sterilization procedures. Dogs are captured from various areas, undergo surgery at these centers, and are typically held for approximately three days before being released. However, these centers do not provide medication for the animals.
- Sick dogs are directed to the Blue Cross Foundation in Mundhwa for treatment, where sterilization procedures are performed with the assistance of various NGOs. Unfortunately, after sterilization, no further follow-up is conducted by the authorities. Contrary to claims that sick dogs are not accepted at civic centers, observations at a dog pound near Pune Station revealed cramped kennels housing multiple ailing dogs in unsanitary conditions.
- Regarding civic initiatives, municipal corporations have predominantly focused on birth control measures rather than comprehensive animal welfare. Several NGOs have raised concerns about restrictions imposed by civic bodies, limiting activities to animal birth control and stray dog sterilization.

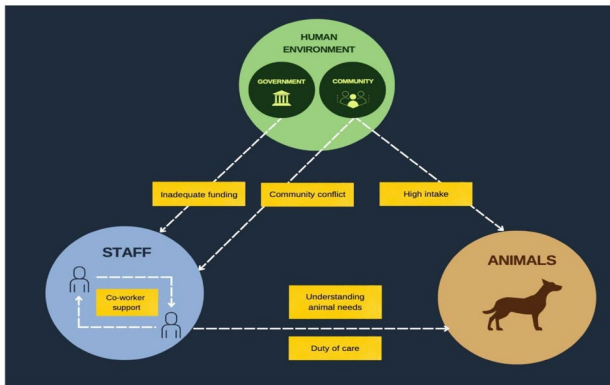


Fig. 2. Connection between themes and subthemes

**3. Case Studies**

*A. Blue Cross Society, Pune*



Fig. 3. View of Blue Cross Society, Pune

*Positives:*

1. Blue Cross Society Pune partners with Sunanda Das Animal Hospital, operating as a not-for-profit trust, showcasing a commitment to animal welfare.
2. It represents a franchise of one of India's most active animal welfare groups, indicating a strong network and support system.
3. It is the go-to destination in the city for stray animal treatment, demonstrating trust and reliability among the community.

*Negatives:*

1. The focus of the trust leans more towards providing treatment rather than holistic animal welfare.
2. The shelter suffers from substandard conditions, including overcrowding, poor ventilation, and hygiene issues.

*1) WASA Animal Rescue Centre, Amravati, India*



Fig. 4. View of WASA Centre, Amravati

*Positives:*

1. The center features distinct units dedicated to both quarantine and healthy animals, ensuring proper care and minimizing the risk of disease transmission.
2. Situated in a hilly area surrounded by nature, the site enjoys ample natural light and ventilation, fostering a fresh and airy environment.
3. The centre's location allows healthy animals the freedom to roam and graze, promoting their natural behaviours and well-being.
4. Kennel spaces are thoughtfully organized based on factors such as animal type, health considerations, and size, optimizing comfort and care.

*Negatives:*

1. Additional shaded shelters are needed to meet the city's demand for the care of both farm and companion animals.
2. Enhancing the maintenance of green garden spaces would offer animals a tranquil area to relax and unwind, fostering the overall wellbeing of the animals.

## 2) Greenville Humane Society, Greenville



Fig. 5. View of Greenville Humane Society, Greenville

### Positives:

1. The animal shelter caters to both community and private companion animals, offering inclusive care for a wide range of animals.
2. Services provided encompass various aspects of animal welfare, including rescue treatment, regular check-ups, vaccination, boarding, visitor park, meet-and-greet area, and adoption services.
3. The architectural design of the shelter strikes a balance between open and closed spaces, prioritizing ample light and ventilation for the well-being of the animals.

### Negatives:

1. Despite the daily intake of animals, there is a shortage of kennels available, potentially leading to overcrowding and compromised comfort for the animals.
2. The limited number of wall openings may contribute to noise issues within the shelter, affecting the overall environment and potentially causing distress to the animals.

## 3) Palm Spring Animal Shelter, California



Fig. 6. View of Palm Spring Animal Shelter, California

### Positives:

1. The center effectively balances open and closed spaces, fostering a harmonious relationship between them.

2. It boasts an adequate number of shelter units tailored to accommodate the centre's intake capacity, ensuring comfortable living conditions for the animals.
3. Separate entrances for the public and inpatients streamline the flow of visitors and maintain a sense of privacy and security for the animals.

### Negatives:

1. Insufficient open green spaces fail to provide animals with adequate playground areas for exercise and enrichment, limiting their opportunities for physical activity and mental stimulation.

The current status of animal welfare centers presents a mix of positives and negatives, highlighting both achievements and areas for improvement. However, there are also notable challenges that need to be addressed.

### B. Comparative Outcomes of Indian and International Case Studies

#### 1) Infrastructure

Research indicates that many animal welfare centers in India encounter infrastructural challenges, such as inadequate facilities, overcrowding, and insufficient sanitation measures.

#### 2) Business Model

Case studies suggest that animal welfare centers in India commonly depend on donations, grants, and fundraising activities, leading to financial instability and operational hurdles.

#### 3) Funding

The funding limitations faced by animal welfare centers in India, with limited government support and a significant reliance on external donations.

#### 4) Services Provided

Findings demonstrate that animal welfare centers in India predominantly offer basic services like sheltering, feeding, and basic medical care for animals, often with limited resources.

#### 5) Outcomes Quality

International centers typically uphold higher standards in animal care, staff training, facility management, and outreach efforts, resulting in superior outcomes for animal welfare.

## 4. Design Guidelines

### A. Building Layout

#### 1) Staff and Public Spaces

1. Reception Area: As the first point of contact for visitors, ensure the reception area facilitates smooth traffic flow and conveys cleanliness and openness.
2. Administrative Office: Serving as the shelter's nerve center, this space needs direct access to both reception and animal quarters, with ample storage for records, including provisions for future expansion.
3. Medical Room: Ideally adjacent to isolation areas, with a separate entrance and dedicated ventilation to prevent disease spread.
4. Cold Storage: Located near euthanasia facilities, ensuring compliance with health regulations for disposal methods.
5. Animal Food Preparation: Equipped with essential

amenities for safe food preparation and storage, including measures for disinfection and secure storage.

6. Hygiene Area: Providing staff amenities such as wash areas, toilets, and ideally, shower facilities, promoting proper hygiene practices.

## 2) Animal Space

When designing your animal shelter layout, prioritize disease prevention. Allocate specific areas for incoming animals to undergo quarantine, inaccessible to the public, separate from those ready for rehoming.

1. Individual or Quarantine Kennels: Each dog should have a minimum covered area of 2m<sup>2</sup>, ensuring its draft-free and well-ventilated, with access to natural and supplementary light. Additionally, a 2.5–3.5m<sup>2</sup> open exercise run is required, enclosed by at least 2m high fencing made of weld mesh sloped inward at the top to prevent climbing.
2. Double decker kennels: The use of triple-decker cages is strictly discouraged for an animal, as well as double-decker cages and kennels for dogs and puppies. These setups are challenging to clean and pose a risk to kennel staff during animal placement or removal. However, double-decker cages are deemed acceptable for cats, provided they are not positioned too high on the wall.
3. Group Housing: Unsuitable for sick, injured, or nursing animals, or shelters with high turnover, dogs require the same space as individual kennels per dog. Only after 10 days in quarantine should dogs be placed in group housing, ensuring compatibility and implementing a policy of sterilization or strict sex separation.
4. Quarantine or Individual Cages: Each cubicle and exercise area should be at least 2.2m<sup>3</sup> with an open mesh front, equipped with a bed, dirt/litter tray, and space for food and water bowls. Adequate ventilation is crucial, with a minimum 2m separation between facing cubicles to prevent disease spread.
5. Group Housing for Cats: Cats in group housing need well-ventilated, covered, and draft-free accommodation without bedding to minimize infection spread. Outdoor areas must be fully enclosed in weld mesh with a solid roof, providing one dirt/litter tray per cat. Smaller groups are recommended, with a policy of sterilization or strict sex separation.
6. Indoor/outdoor runs: This facility benefits shelter staff and dogs by simplifying cleaning, promoting fresh air circulation, reducing disease transmission, minimizing noise and odours, and aiding in house-training.

## 3) Other Considerations

### a) Spatial Layout

- Design distinct areas for intake, quarantine, housing, and adoption to minimize stress and disease transmission.
- Ensure ample space for socialization, exercise, and enrichment activities.
- Facilitate easy access to outdoor areas for sunlight and

fresh air.

### b) Ventilation and Lighting:

- Install sufficient ventilation systems to maintain air quality and prevent the spread of airborne pathogens.
- Incorporate natural lighting to create a stimulating environment and reduce energy consumption.

### c) Noise Control:

- Utilize sound-absorbing materials and design features to minimize noise levels and foster a calm atmosphere.
- Separate noisy areas, such as dog kennels, from quiet zones, such as cat rooms.

### d) Sanitation and Material Selection:

- Opt for durable, non-porous materials that are easy to clean and disinfect.
- Establish designated areas for waste disposal and cleaning to uphold hygiene standards.

### e) Biophilic Design:

- Integrate natural elements like plants and organic materials to create a soothing and enriching atmosphere.
- Offer visual and physical connections with nature to alleviate stress and enhance overall well-being.

## 5. Conclusion

1. Need for Animal Welfare Centres: The research underscores the critical need for establishing Animal Welfare Centres (AWCs) in metropolitan cities of India due to the unique challenges posed by urbanization, including increased stray animal populations and limited access to veterinary care.
2. Challenges in Animal Welfare: The study highlights various challenges faced by existing animal shelters, such as inadequate funding, overcrowding, staff shortages, and resource scarcity, hindering their ability to provide essential care for animals in need.
3. Importance of Collaborative Solutions: To address these challenges effectively, the paper emphasizes the importance of collaborative efforts involving government, NGOs, and the public to elevate animal welfare standards and improve shelter management practices.
4. Architectural Design Guidelines: The research provides comprehensive architectural design guidelines tailored to the Indian context, focusing on spatial layout, ventilation, lighting, noise control, sanitation, and material selection to enhance the well-being of sheltered animals and optimize operational efficiency.
5. Emphasis on Business Model: A robust business model for NGOs operating animal shelters is highlighted as crucial for ensuring sustainability and smooth functioning, addressing funding gaps, and fostering long-term viability.
6. Potential Benefits of AWCs: AWCs are positioned as effective solutions for addressing issues related to stray animal population management, animal cruelty, and public health concerns, promoting compassion, responsible pet ownership, and humane treatment of animals in urban areas.
7. Current Status Assessment: The case studies presented offer insights into the current status of animal welfare centres, showcasing both positive aspects such as collaborative

- partnerships and negative aspects like poor shelter conditions and inadequate services.
8. Importance of Urban Pet-Friendly Infrastructure: Analysis of pet-friendliness in Indian cities underscores the need for urban pet-friendly infrastructure, including access to quality pet services and public spaces conducive to pet ownership.
  9. Call for Action: The paper concludes with a call for concerted action from stakeholders to address the pressing challenges in animal welfare, advocating for transformative solutions and the establishment of effective AWCs to ensure the well-being of animals in urban India.
  10. Policy Recommendations: The study suggests policy interventions to support the establishment and operation of AWCs, including regulatory frameworks, funding mechanisms, and incentives for public-private partnerships in animal welfare initiatives.
  11. Community Engagement: Community involvement is highlighted as essential for the success of AWCs, emphasizing the role of public awareness campaigns, volunteer programs, and community outreach initiatives in promoting animal welfare in metropolitan cities.
  12. Continuous Monitoring and Evaluation: The paper stresses the importance of ongoing monitoring and evaluation of AWCs to assess their effectiveness, identify areas for improvement, and ensure accountability in the provision of animal care services.
  13. Adaptation of Global Models: While examining existing

global models of AWCs, the research suggests adapting successful practices to the Indian context, considering socio-cultural, economic, and environmental factors influencing animal welfare in urban settings.

14. Long-Term Vision: Ultimately, the research advocates for a long-term vision for animal welfare in metropolitan cities, emphasizing the need for sustained efforts, investment, and collaboration to create a more compassionate and humane environment for animals and communities alike.

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