

Community Engagement through Social Media: TNR for Stray Cats in Indonesia

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Abstract

The educational model implemented through interpersonal communication and social media campaigns in this study aims to address the issue of animal pests, specifically the growing population of feral cats. Public awareness of stray cats as potential threats to environmental health is crucial. This research seeks to provide educational interventions that encourage communities to adopt appropriate behaviors toward stray and feral cats in their surroundings. Without proper population control, these animals may increasingly pose risks to environmental health. This study employed a qualitative research design with an observational approach. Considering the high number of stray cats in Indonesia, the research focused on addressing this issue through Trap–Neuter–Return (TNR) activities in Cikunir, utilizing social media as an educational tool. The findings indicate that TNR offers a viable method for managing stray and feral cat populations in Indonesia, provided there is sustained government support. Moreover, when shared via social media, such initiatives have the potential to reach a broader audience. The study highlights the importance of public education in population control efforts to foster healthier coexistence between humans and animals. By integrating interpersonal communication within social education frameworks, this research underscores the significance of implementing TNR-based interventions in the Indonesian context.

Keywords: stray cats, TNR, Indonesia, social media

Introduction

Cats—whether roaming domestic cats, feral cats, or strays—are among the most successful invasive species, exerting damaging impacts on native species across diverse ecosystems, from islands to continents (Kazato et al., 2020). Controlling the population of stray and free-roaming cats remains a significant challenge. In the United States, for instance, more than one million cats admitted to shelters each year are euthanized due to overcrowding or illness (Levy et al., 2014). The majority of these cats are strays without owners, and the number of kittens born far exceeds the capacity for adoption, despite increasing adoption rates. Consequently, reducing the number of stray cats and kittens, while promoting the adoption of unowned cats, is critical to minimizing euthanasia rates.

In Indonesia, educational efforts on how to manage stray cat populations remain limited. Many people are uncertain about how to deal with the growing number of strays, which are often regarded as nuisances or, in some cases, environmental pests. Unfortunately, cases of cruelty towards cats are frequently reported. For example, on November 6, 2020, a police officer was reported to have thrown a kitten into a ditch for stealing food (Zega, 2020). Other incidents include individuals scalding cats with hot water, kicking them, or abandoning them in sacks on the streets. In Serpong, South Tangerang, one man attempted to torture a stray cat near a school simply because he disliked the cats roaming the area. A security guard intervened and stopped the abuse; although the cat was injured, it survived and was later seen again (Sutrisna & Asril, 2021). Such cases highlight the prevalence of animal abuse in Indonesia, particularly targeting stray cats, and underscore the urgent need for social education to guide communities on how to address this issue humanely.

Positive efforts also exist. The documentary film *Menon* narrates stories of struggle, sacrifice, care, and compassion for living beings, based on research and real events in Bandung, Indonesia (Ananda & Pramonojati, 2020). The film seeks to raise awareness of the plight of stray cats, inspiring empathy while honoring the resilience of individuals who care for them. This reflects that, alongside cases of cruelty, there are also strong voices advocating for compassion toward stray animals in Indonesia. The rapid increase in stray cat populations has begun to directly affect community life in several ways:

- a. Stray cats rummage through garbage bags left in yards, as most Indonesians do not use secure trash bins or sort their waste.
- b. Property damage occurs when cats scratch cars and motorbikes.
- c. Fighting and mating behaviors of unneutered cats create loud noises, especially at night, disturbing residents' sleep.
- d. Unneutered males spray urine to mark territory, leaving a strong, unpleasant odor.
- e. Many stray cats and kittens suffer injuries due to abuse, traffic accidents, and other hazards.

This research focuses on observing Trap–Neuter–Return (TNR) practices in Cikunir, Indonesia, as a potential solution for reducing stray cat populations. The findings aim to

provide a basis for recommendations to both government institutions and community groups on addressing the issue of free-roaming cats. Furthermore, this study contributes to international discourse, as TNR initiatives in Indonesia have not previously been documented in scientific literature. The TNR activities, especially in Indonesia, is very little compared to the exponential growth in the number of feral cats. By disseminating these findings, the research not only highlights the urgency of managing stray cat populations in Indonesia but also emphasizes the importance of integrating humane, sustainable solutions through education and policy support.

Materials and Methods

Research on feral cat management conducted by Chu et al as reported in Spehar & Wolf (2019), indicates that over the past 25 years, the use of trap–neuter–return (TNR) has grown significantly, driven by public support for non-lethal management strategies. Until recently, most TNR efforts were carried out by individuals, small groups, or community organizations. Capture–neuter–return (CNR) programs demonstrate considerable potential to enhance animal welfare and mitigate risks to public health.

Previous studies have identified a range of techniques for controlling free-ranging cat populations, including poison baiting, trapping, shooting, fencing, and TNR. These methods have been widely applied in Europe, the United States, and Oceania. In Japan, particularly on ecologically sensitive islands such as Okinawa, Iriomote, Ogasawara, Teuri, and Amami, TNR and trapping are the primary management strategies to protect endemic species (Kazato et al., 2020).

Critics argue that TNR is insufficient to reduce stray cat populations, citing analyses that show population growth despite long-term implementation (Wolf et al., 2021). In Australia, urban stray cats remain a persistent challenge, with thousands of healthy cats and kittens euthanized annually by municipal facilities, shelters, and veterinary clinics. Research has also shown that culling healthy cats negatively impacts the mental health of personnel tasked with euthanasia (Wolf et al., 2019). From the perspective of human welfare, animal welfare, and ethics, repeatedly relying on ineffective methods such as trapping and killing, without testing alternatives like TNR, is problematic. Large-scale, evidence-based TNR

trials are therefore strongly recommended, particularly in the Australian urban context, to address the issue of unowned cats (Wolf et al., 2019). A study by Wallace and Levy, as reported in Wolf et al. (2021), found that more than 100,000 cats were admitted to TNR programs in the United States. Only a small proportion (0.4%) were found to have untreatable health conditions, and humane euthanasia was provided in these rare cases, demonstrating that TNR can also uphold key principles of animal welfare.

There is substantial evidence that community-based cat management strategies, particularly sustained TNR, contribute to reducing both shelter intake and euthanasia rates. Long-term studies confirm that consistent and intensive TNR efforts can significantly decrease stray cat populations (Hostetler et al., 2020; Spehar & Wolf, 2018, 2020a, 2020b). Similar findings have been reported in Italy and Australia (Berteselli et al., 2021; Kennedy et al., 2020; Slater & Weiss, 2019; Swarbrick & Rand, 2018).

To date, most academic research on TNR has been conducted in English-speaking Western countries. For example, an exploratory Scopus search on November 15, 2021, covering the years 2000–2021, identified 103 articles referencing TNR in their titles, keywords, or abstracts (Debrot et al., 2022). The majority of these studies (67%) were published prior to 2017, indicating the growing attention the topic has received in recent years. The distribution of publications reveals that most originated from the United States (45), followed by Australia, New Zealand, Canada, and the United Kingdom (13), continental Europe (17), Asia (7), and other regions (6). Among these, 15 were reviews, models, or commentaries. These results highlight the scarcity of TNR-related academic research in Asia, particularly in Indonesia. Searches on Google Scholar similarly reveal that few, if any, studies have documented TNR practices in the Indonesian context.

Results and Discussion

Knowledge about TNR practices has also been advanced by Neighborhood Cats, an organization actively engaged in trapping, assisting caregivers, collaborating with animal shelters, conducting workshops, and initiating new programs. Their staff operate in various locations, including Maui (Hawaii), New York City, Jersey City, and other cities. Having directly cared for thousands of cats, they have accumulated extensive practical experience

that has informed improvements in both feline welfare and community engagement. Many of the now-standard practices in TNR originated with Neighborhood Cats. For example, they popularized mass trapping—coordinated TNR of entire colonies—as well as the practice of caring for feral cats in traps rather than cages, a method that has since been widely adopted for its efficiency and reduced risk of injury. They also contributed to the development of “targeting,” the systematic capture and sterilization of cats in areas with high need, and collaborated on innovations such as the Neighborhood Cats Gravity Trap and the first mass-produced drop trap. Disseminating their knowledge has been a core part of their mission and central to their global influence.

In Indonesia, Let’s Adopt Indonesia (LAI) is a non-profit organization with the primary mission of spaying and neutering stray animals to curb overpopulation, educating communities on animal welfare, and rescuing and rehoming abandoned animals. Positive feedback and growing public interest in their TNR programs strengthened LAI’s commitment to sustaining and expanding its impact (Willyarto & Fajar, 2021). By supporting compassionate individuals and pet owners who feed stray animals but lack the resources for sterilization, LAI not only improves animal welfare but also contributes to broader community health and safety. As a social group concerned with stray animal populations, LAI has implemented TNR programs to support government efforts, particularly in the Greater Jakarta area. Social media engagement, including comments and discussions on platforms such as Instagram, Facebook, and Twitter, indicates growing public support for these initiatives. However, long-term sustainability requires greater involvement from both government institutions and the wider community.

Field observations confirmed that while numerous communities in Indonesia are actively practicing TNR, very few have disseminated their work in scientific publications. Unlike organizations in the United States, Indonesian groups tend to focus their outreach on social media rather than academic communication. To maximize educational impact and global visibility, increased efforts in research and international publication are needed.

Challenges also remain within the veterinary profession. Reports from volunteers and veterinarians highlight internal divisions, with some veterinarians supporting TNR while

others oppose it. This lack of consensus has hindered coordinated implementation. As (Hostetler et al., 2020) emphasize, TNR is unlikely to reduce stray cat populations unless supported by significant resources, sustained efforts, and broad collaboration—including veterinarians, community groups, and government agencies under unified regulation. This research aims to provide insights that may encourage stronger cooperation across these sectors.

Reducing feral cat populations through TNR offers tangible neighborhood benefits (ASPCapro, 2025.). Over time, colonies shrink, nuisance behaviors such as spraying, meowing, and fighting decline, and foul odors diminish as neutered males cease territorial marking. Furthermore, many TNR programs include rabies vaccinations, reducing the risk of transmission and improving public health. Communities often report improved relations with cats, fewer complaints to authorities, and overall enhanced community morale once reproduction and mating behaviors are curtailed.

To strengthen these impacts, LAI frequently conducts educational campaigns on the importance of sterilization as a preventive strategy against abandonment and overpopulation. With greater community participation and government support, more animals can be sterilized, and broader segments of society can be reached with educational messages. This approach not only improves human–animal coexistence but also enhances animal welfare by reducing illness, injury, and premature mortality among stray cats. Expanding research on TNR in Indonesia, and publishing findings in international scientific venues, would further enrich global knowledge and highlight Indonesia’s contributions to humane stray animal management.

Figure 1 presents images of TNR practices conducted in Cikunir, Indonesia, by LAI in collaboration with other community organizations and with support from Neighborhood Cats.

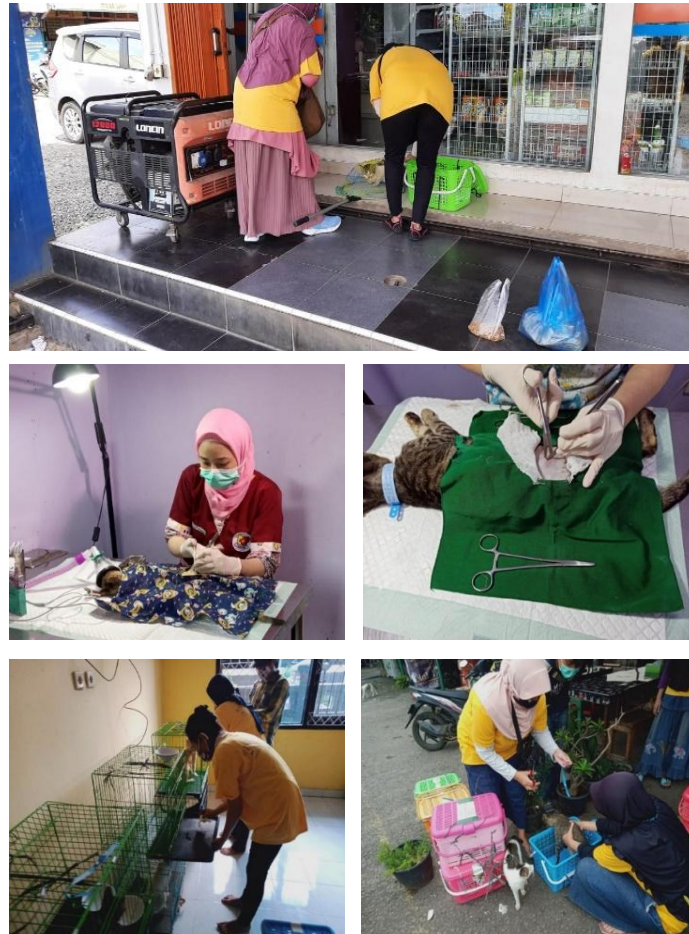


Figure 1. TNR in Cikunir, Indonesia, documented by Let's Adopt Indonesia

Conclusion

The analysis of TNR observation studies discussed above demonstrates that population outcomes cannot always be predicted: in some cases, populations decline, while in others they remain stable or even increase. A key limitation is the absence of scientifically rigorous monitoring, which has led to unreliable estimates of both population sizes and program outcomes (Hostetler et al., 2020). To ensure the effectiveness and sustainability of TNR initiatives, government support is essential, particularly in the form of policy backing and systematic monitoring.

Equally important is continuous public education on the value of sterilization as a preventive measure against the overpopulation of stray and abandoned animals. Social media provides a powerful tool for reaching broad audiences with campaigns that inform people about humane and effective ways of managing stray cats. This study represents preliminary research and will be expanded to cover wider areas and larger populations of stray animals. Future work will aim not only to further educate communities but also to provide evidence-based recommendations for government policies, with a particular focus on assessing the impact of social media in expanding outreach.

Social media platforms can be strategically employed to educate the public about TNR. By disseminating informative posts, videos, and personal testimonials, users can increase awareness of TNR's benefits and encourage greater participation. The development of social e-learning modules offers additional potential by delivering structured, accessible, and comprehensive education on TNR methods, procedures, and best practices to a wide audience. While doing the observation in this particular TNR that was done in Cikunir Traditional Market, Jakarta, Indonesia, it was still a large number of stray cats that are roaming the market. Hopefully, there are more TNR activities in the area, so that the number of stray cats can be controlled.

Furthermore, dedicated social media groups and forums can serve as spaces for discussion, experience-sharing, and mutual support among individuals engaged in TNR activities. Such online communities help build networks of like-minded people, fostering collaboration and expanding participation in TNR programs. The involvement of social media influencers and local animal welfare organizations can further amplify these messages. By sharing engaging content—such as images, short videos, and success stories—they can attract wider public attention and inspire more individuals to take part in TNR efforts. Through a combined strategy of government support, structured monitoring, and the effective use of digital platforms, TNR programs can become more impactful, sustainable, and widely adopted.

Conflict of interest

We certify that there is no conflict of interest with any financial, personal, or other relationships with other people or organizations related to the material discussed in the manuscript.

Acknowledgments

This TNR work is done by Let's Adopt Indonesia, funded by Neighbourhood Cats, collaborated with local cat lovers' communities and together with reliable vets and clinics. This article has been presented at the 4th Animal Welfare Indonesia (AWI) International Conference 2025.

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