

The Changing Landscape of Stray Dog Management in Singapore

Introduction

On December 21, 2017, the Agri-Food & Veterinary Authority of Singapore (AVA) announced its intention to embark on a five-year nationwide Trap-Neuter-Release-Manage (TNRM) programme to manage the country's stray dog population. TNRM is a "humane and science-based method" that involved humanely capturing and sterilising stray dogs before rehoming them or returning them to their natural environments and monitoring their welfare. Using mathematical modelling and evidence from scientific literature, the AVA¹ set a sterilization target of more than 70 percent of Singapore's estimated 7000 strays, with the goal of first stabilising and then decreasing the dog population. This outcome would both lead to better welfare for the dogs and alleviate residents' concerns about an excess of stray dogs around their living spaces.

The AVA planned to conduct the nationwide TNRM programme in close collaboration with veterinarians and animal welfare groups (AWGs). Leaders of participating AWGs welcomed the initiative, as it signalled a shift towards more humane methods of stray population control as well the AVA's willingness to partner with non-government stakeholders in the planning and decision-making processes.

"We believe that this will be the turning point for stray animal management in Singapore," Siew Tuck Wah, President of the AWG Save our Street Dogs (SOSD) said, noting that the programme was proof that Singaporean society was "evolving into a more compassionate, kinder one which cares not only for its human residents but for its animals as well."² Jaipal Singh Gill, Executive Director of the Society for the Prevention of Cruelty to Animals (SPCA), called the programme a "game changer" for Singapore's street dogs, and expressed his pleasure at seeing "so many stakeholders, including the government, animal welfare groups and veterinarians, coming together with a shared vision and approach to humanely reduce the street dog population."³

The nationwide TNRM programme was a significant step in Singapore's stray management journey. First, it was the first time such a policy has been used to manage

¹ The AVA was later dissolved, and the animal welfare team reconstituted as the Animal and Veterinary Service (AVS) under the National Parks Board (NParks) from April 1, 2019.

² "AVA," Singapore Food Agency, accessed July 11, 2019, https://www.ava.gov.sg/files/avavision/issue1_2018/managing-stray-dogs-humanely.html.

³ Ibid.

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the stray dog population in Singapore. Second, non-government actors were significantly involved in policy planning and implementation.

The stray animal problem

Singapore's stray dog population presented numerous policy complications and challenges. First, stray dogs suffered from impaired welfare. The domesticated nature of stray dogs meant that the animals were dependent on people, but lacked regular access to food, shelter, and medical care. These animals also faced greater health risks such as disease and car accidents than did dogs that had homes.

Second, encounters with stray dogs could pose risks to public safety and public health. Development of areas in Singapore forced dog packs to leave their residing environments and roam urban areas such as housing estates, school zones, or hawker centers in search of food and shelter. Certain situations could cause such dog packs to perceive passers-by as threats and thus feel compelled to protect their territories. Dogs could also become victims of traffic accidents as they travelled across roads and highways, and were potential vectors for zoonotic disease such as rabies.

Third, resources were limited. The AWGs did not have the resources to bail out, rehabilitate, and re-home all AVA-impounded dogs, and the AVA faced its own resource constraints as well. As such, many of the impounded dogs had to be euthanized if they were not rehomed.

Stray management in Singapore

The stray dog problem began during Singapore's urbanization in the 1960s, during which the newly independent Singapore government had to face a rapidly growing population. One of the government's primary tasks was to address Singapore's significant population of squatters and conditions of "extreme overcrowding".⁴ The Housing Development Board (HDB) was established in 1960 and tasked with resolving the "housing crisis".⁵ Through a series of five-year plans, the HDB built over 100,000 multi-storied flats and housed approximately one-quarter of Singapore's population in its first ten years. Within two decades of the HDB's inception, 80 percent of the population lived in public flats.⁶

Unfortunately, Singaporeans who moved into public housing were forced to abandon their pets.⁷ According to HDB policy, the "keeping of domestic animals and poultry is unsuitable in housing estates where families live in close proximity to each other,

⁴ Riaz Hassan, "Some sociological implications of public housing in Singapore," *Southeast Asian Journal of Sociology* (1969): 23-26.

⁵ "HDB History and Towns," Singapore Housing & Development Board, accessed July 11, 2019, <https://www.hdb.gov.sg/cs/infoweb/about-us/history>

⁶ Teo Siew Eng and Victor R. Savage, "Singapore landscape: a historical overview of housing change," *Singapore Journal of Tropical Geography* 6, no. 1 (1985): 48-63.

⁷ "Our History," Society for the Prevention of Cruelty to Animals, Singapore, accessed July 11, 2019, <http://www.spca.org.sg/about.asp>.

particularly, in compact multi-storeyed flats".⁸ HDB dwellers were cautioned not to keep "any bird, dog or other animal which may cause annoyance to any owner lessee or occupier of the other flats".⁹

To cope with the large number of abandoned animals that resulted from the relocations to public housing, the SPCA launched a scheme to take in pets before owners left their *kampung* homes,¹⁰ and used information provided by the Ministry of National Development and the Primary Production Department (the AVA's predecessor) about which areas of Singapore were slated for development to do so. The SPCA continued to receive over 1,000 surrendered cats and dogs a month in the 1990s.¹¹

At the same time, the government utilized culling as one means of stray population control.¹² The AVA asserted that it deployed culling as a last resort to address the public health and safety issues, such as spread of zoonotic disease and animal bites, that arose from Singapore's stray population.

AWGs had long criticized culling as both inhumane and ineffective for stray population and zoonotic disease control. Animals that survived culling might migrate to surrounding regions or develop adaptive behaviours to avoid capture, and the elimination of stray populations could destabilise local ecosystems or cause other zoonoses to emerge.¹³

The SPCA's sterilization voucher scheme in 1991 was the first in a series of large-scale stray animal sterilization initiatives conducted by the AWGs. This scheme enabled stray caretakers and other financially-strapped AWGs to sterilize community cats cost-free.¹⁴ At the time of writing, the SPCA had borne \$1.3 million in costs to disburse more than 35,000 sterilization vouchers.

The beginnings of collaboration

One of the earliest attempts at a consultative approach to stray cat management began in 1998 with the Primary Production Department's Stray Cat Rehabilitation Scheme (SCRS). The scheme was a "voluntary, community-based scheme" involving cat

⁸ Ying-kit Chan, "No Room to Swing a Cat? Animal Treatment and Urban Space in Singapore," *Southeast Asian Studies* 5, no. 2 (2016): 305-329.

⁹ Tay Hong Yi, "Ban as old as first HDB flats," *The Straits Times*, February 19, 2017, <https://www.straitstimes.com/singapore/ban-as-old-as-first-hdb-flats>.

¹⁰ "Our History."

¹¹ "Running A Shelter: Some Hard Truths," Society for the Prevention of Cruelty to Animals, Singapore, accessed July 11, 2019, http://www.sPCA.org.sg/animalwelfare_details.asp?id=134.

¹² Elaine Pong, "Not Practical to Replace Culling with Sterilisation," *The Straits Times*, December 10, 2005, Forum sec.

¹³ Benjamin Capps et al., "Introducing One Health to the Ethical Debate About Zoonotic Diseases in Southeast Asia," *Bioethics* 29, no. 8 (2015): 588-596.

¹⁴ "Sterilisation Programme," Society for the Prevention of Cruelty to Animals, Singapore, accessed July 11, 2019, http://www.sPCA.org.sg/services_sterilisation.asp.

welfare groups and volunteers.¹⁵ For the first time, sterilization—as opposed to culling—was employed as a policy for stray cat population control. SCRS began as a pilot at Bukit Merah view.¹⁶

The SCRS was short-lived, however. In October 2003, the AVA announced its termination of the SCRS and reversion to culling cats and other stray animals, citing the persistence of stray-related issues such as cat defecation and food meant for cats attracting pests in numerous estates.¹⁷ The policy reversal was also attributed to the outbreak of Severe Acute Respiratory Syndrome (SARS)—a deadly strain of the influenza virus that infected 238 persons and killed 33 until its containment three months later—earlier in the year. The SARS outbreak had two immediate effects on stray cat management policies: first, stray cats were identified as “possible vectors” of the disease and were culled as a precautionary measure;¹⁸ and second, the government commenced a public hygiene initiative, the *Singapore’s Ok* campaign, under which government agencies intensified the removal of stray cats and dogs around food establishments, citing the diseases they may spread due to contamination of “utensils and surfaces” or animal “bites and scratches”.¹⁹ According to the Cat Welfare Society (CWS), none of the AWGs or SCRS volunteers were consulted in the decision to terminate the SCRS.²⁰

Post SCRS, the CWS and other AWGs were left to continue stray cat sterilization without government support. In 2005, the CWS reported a 60 per cent increase in sterilization costs and 200 percent increase in rescue costs due to the cessation of the SCRS and the AVA’s free sterilization slots. The CWS also temporarily ceased its subsidization of community cat sterilization and medical fees in June 2004 due to rising costs and a shortage of funds.²¹ In 2007, the CWS reported a meeting with MP and Chairman of the Town Councils,²² Teo Ho Pin, during which it was made clear that the Town Councils could not support sterilization of stray cats as they had adopted a “no strays” policy.²³ The Town Councils asserted that their policy was in line with the HDB’s regulation against keeping pet cats in public flats, despite the HDBs’ clarification that the Housing & Development (Animals) Rules did not apply to community cats.²⁴

¹⁵ Agri-Food and Veterinary Authority of Singapore, “Discontinuation of the Stray Cat Rehabilitation Scheme (SCRS) in Public Housing Estates,” Press statement (October 8, 2003).

¹⁶ Cat Welfare Society, Annual Report 2001, <http://catwelfare.org/wp-content/uploads/2017/08/CWS%20Annual%20Report%20YE2001.pdf>, accessed July 11, 2019.

¹⁷ Agri-Food and Veterinary Authority of Singapore, “Discontinuation of the Stray Cat Rehabilitation Scheme (SCRS) in Public Housing Estates.”

¹⁸ Claire Yeo, Interview with Tong Tau Ngiam, The Public Service, Accession Number 003117, 4 April 2007.

¹⁹ Agri-Food and Veterinary Authority of Singapore, “Discontinuation of the Stray Cat Rehabilitation Scheme (SCRS) in Public Housing Estates.”

²⁰ Cat Welfare Society, Annual Report 2004, <http://catwelfare.org/wp-content/uploads/2017/08/CWS%20Annual%20Report%20YE2004.pdf>, accessed July 11, 2019.

²¹ Cat Welfare Society, Annual Report 2005, <http://catwelfare.org/wp-content/uploads/2017/08/CWS%20Annual%20Report%20YE2005.pdf>, accessed July 11, 2019.

²² Town Councils are run by elected members of parliament and residents in a HDB housing estate, to decide on matters pertaining to local estate management

²³ Cat Welfare Society, Annual Report 2007, <http://catwelfare.org/wp-content/uploads/2017/08/CWS%20Annual%20Report%20YE2007.pdf>, accessed July 11, 2019.

²⁴ Ibid.

Government-AWG cooperation for stray sterilization was renewed in 2011, with the launch of the Stray Cat Sterilization Programme (SCSP) in five HDB estates. Under this programme, the government funded half of all cat sterilizations, and community cat feeders were recognized as “integral” to humane cat management.²⁵ The CWS sterilized 150 cats in the first year of SCSP. In 2014, the programme was expanded to cover cats in all HDB communities,²⁶ and the SPCA offered its clinic to be used in sterilization.²⁷ SCSP was further expanded to cover all areas of Singapore, including commercial and industrial estates, in 2016.²⁸ In that same year, the CWS reported that over 21,000 community cats had been sterilized under SCSP since 2012.²⁹ The number of stray cats reportedly impounded and euthanized by the AVA fell concurrently, from around 13,000 to 14,000 cats culled annually around 2003 to fewer than 1000 cats in 2015.³⁰

But even as AWGs made headway in advocating for a nationwide sterilization scheme for cats, culling of stray dogs was still ongoing. Since the early 2000s, the AVA’s view was that sterilization was not a “practical” alternative to culling for stray dog population control.³¹ In 2005, responding to a letter in *The Straits Times* calling for a nationwide sterilization programme, Senior Manager of Corporate Communications for CEO of the AVA Elaine Pong characterized the stray dog problem as “complex and multifactorial”. Stray dogs could be a public “nuisance” and “menace” regardless of whether they were sterilized or not. In a 2009 letter to *TODAY* newspaper, the AVA wrote that sterilized dogs “should not be returned to the environment” because of their disamenities, and that culling was an “inevitable” measure to curb the risk of rabies transmission should an outbreak occur.³²

The AVA also adopted other measures to reduce the stray dog population in addition to culling. These measures included reducing pet abandonment by increasing the traceability of lost or abandoned pets to their owners,^{33,34} as well as encouraging

²⁵ Cat Welfare Society, Annual Report 2011, <http://catwelfare.org/wp-content/uploads/2017/08/CWS%20Annual%20Report%20YE2011.pdf>, accessed July 11, 2019.

²⁶ Sharon Teng and Fiona Lim, “Cat Welfare Society,” Singapore National Library Board, accessed July 11, 2019, http://eresources.nlb.gov.sg/infopedia/articles/SIP_2015-06-03_100618.html.

²⁷ Society for the Prevention of Cruelty to Animals, Singapore, Annual Report 1 July 2014-30 June 2015, <http://www.sPCA.org.sg/pdf/SPCA%20Annual%20Report%202014-2015.pdf>, accessed July 11, 2019.

²⁸ “Because Mediation Matters,” Society for the Prevention of Cruelty to Animals, Singapore, accessed July 11, 2019, <https://www.catwelfare.org/mediationsaveslives>.

²⁹ Cat Welfare Society, Annual Report 2016, <http://catwelfare.org/wp-content/uploads/2017/12/CWS-Annual-Report-YE2016.pdf>, accessed July 11, 2019.

³⁰ Lim Jia Qi, “Expanded Stray Cat Sterilisation Programme starts in July,” *Channel News Asia*, July 5, 2016.

³¹ Goh Shih Yong, “No Easy Solution for Strays,” *Today*, January 30, 2009.

³² Pong, “Not Practical to Replace Culling with Sterilisation.”

³³ From 2007 onwards, all owners had to microchip and license their dogs with the AVA. This license had to be renewed annually. The maximum penalty for keeping unlicensed dogs was increased tenfold from \$500 to \$5,000. These rules were also extended to the 10 dog farms in operation at the time, which had to apply for group licenses between \$650 to \$3,500 annually.

³⁴ Agri-Food and Veterinary Authority of Singapore, “New Animal and Birds (Dog Licensing and Control) Rules,” Media release (August 6, 2007).

sterilization by lowering the licence fees for sterilized pets.³⁵ The AVA also embarked on several Responsible Pet Ownership campaigns to advocate for the benefits of sterilization for a pets' health.

The AVA's measures to prevent pet abandonment and encourage sterilization were welcomed by AWGs. Nevertheless, dog welfare AWGs continued to criticize culling and push for more humane methods of controlling the stray population.

AWG-led TNRM efforts achieved moderate successes. SOSD conducted its own TNRM project on Pulau Ubin and several of Singapore's offshore fish farms, known as *kelongs*, between October 2014 to May 2016, and saw to the vaccination and sterilization of 74 dogs. In just two years, Pulau Ubin's stray population fell from more than 100 at the beginning of the project to approximately 70 in 2016.³⁶

Many AWGs believed that only close collaboration with the public and private sector would ensure successful stray dog population control. According to SOSD's TNRM manager, Lee Chuen Ling, there were several areas in which government or private support was critical for TNRM's success.

The first area involved building infrastructure for TNRM operations. TNRM was a costly and time-consuming procedure, and AWGs were constrained by the availability of public donations for sterilization and medical fees, as well as for boarding the dog when it was in recuperation. Furthermore, there were, at the time of writing and to Lee's knowledge, fewer than five professional dog trappers in Singapore with the skill and equipment necessary for conducting TNRM humanely. Lee believed that government support for TNRM in the form of funding and the hiring of humane dog-trapping professionals would drastically improve AWGs' TNRM capacities.

The second area involved management and regulation of "grey-area" stray dogs: dogs that roamed Singapore's rural, industrial, or farming estates whose informal "owners" were occupants of these sites. Grey-area dogs were often not licensed to the sites in which they roamed, but were nonetheless used by the occupants to 'guard' private property against human trespassers or wild animals. Because these dogs also roamed and reproduced, TNRM efforts were hampered when occupants were uncooperative or even disruptive to AWGs' monitoring, trapping and sterilization of unlicensed dogs; or when occupants did not wish to feed, medicate, and otherwise manage the dogs living in their premises. Lee argued that while AWGs offered occupants the "carrot" for free sterilization and medical care, the government's "stick"—fines for violation of dog-licensing regulations—was essential to ensure that each occupant kept within the legal limit of dogs per premises, and that each dog was licensed for traceability. For each dog that was licensed to a premise, government enforcement was also necessary to ensure that occupants did not allow their unsterilized dogs to stray and procreate, thus contributing to the stray dog problem.

³⁵ In 2007, a differential licensing fee scheme was instituted for unsterilized dogs. The annual cost of renewing the license of an unsterilized dog was set at \$70, compared to \$14 for a sterilized dog.

³⁶ Kelly Ng, "Jurong Island project to manage stray dogs without culling shows results," *Today*, February 22, 2017, <https://www.todayonline.com/singapore/jurong-island-project-manage-stray-dogs-without-culling-shows-results>.

The third area involved educating private individuals, companies, and government agencies on how to co-exist with stray dogs and facilitate TNRM efforts. Lee proposed educating these entities on why TNRM was more effective than culling as a means of population control, and how they could assist AWGs with trapping strays found on their premises. Meanwhile, stray-caretakers could be educated on best practices such as feeding at fixed locations and consistent timings, so that dog packs would remain in specific areas instead of roaming. Finally, AWGs could collaborate with government agencies to develop protocols for handling public complaints about stray dogs in a manner that protected both public safety and animal welfare.

In 2014, AWG advocacy for TNRM of stray dogs seemed to be making headway. In an unprecedented instance of public-private partnership for stray dog welfare, JTC Corporation (JTC), a statutory board under the Ministry of Trade and Industry, and the AWGs Action for Singapore Dogs (ASD), SOSD, and ACRES (Animal Concerns Research & Education Society), embarked on a TNRM pilot project on Jurong Island, a chemical and petrochemical complex.³⁷ Under this partnership, JTC would support TNRM operations by building sterilization facilities for housing and sheltering strays under the programme.³⁸ In 2017, it was reported that approximately 70 per cent of the stray population had been neutered under the project; of the 504 dogs neutered, 168 had been rehomed by AWGs.³⁹

Later years also saw increasing acknowledgement of the limitations of culling for population control. A 2017 qualitative study of 32 Singaporean “opinion leaders”, five of whom worked in the government sector, on zoonotic emerging infectious disease and policymaking found that the panel “recognised the issue of culling animals as highly controversial and extremely difficult to implement effectively within an urbanised area” such as Singapore. Furthermore, the panel was cognizant of “public objection to the culling of healthy animals, including pets, and the logistics of quickly containing and killing large numbers of animals”.⁴⁰

A collaborative approach to managing stray dogs

In November 2018, Minister for Social and Family Development and Second Minister for National Development Desmond Lee launched the nationwide TNRM programme for stray dogs. The programme aimed to sterilize nearly three quarters of stray dogs in Singapore, excluding islands and military lands, within half a decade. The sterilized dogs would be rehomed if it was possible to do so, and released at appropriate locations otherwise. Existing TNRM initiatives would now benefit from the AVA’s support for costs such as trapping, vaccination, sterilization, and boarding before and

³⁷ ASD is no longer a member of the project, while Noah’s Arc Cares (NAC) is now a member.

³⁸ Feng Zengkun, “Singapore rolls out first trap-neuter-release programme for stray dogs on Jurong Island, *The Straits Times*, December 5, 2014, <https://www.straitstimes.com/singapore/environment/singapore-rolls-out-first-trap-neuter-release-programme-for-stray-dogs-on>.

³⁹ Ng, “Jurong Island project to manage stray dogs without culling shows results.”

⁴⁰ Tamra Lysaght et al., Justice is the Missing Link in One Health: Results of a Mixed Methods Study in an Urban City State, *PLoS One* 12, no. 1 (2017): e0170967.

after surgery; and the AVA would collaborate closely with trappers and 11 AWGs. SOSD president Siew Tuck Wah noted that this was Singapore's first "concerted, large-scale sterilisation effort".⁴¹ AWGs had previously conducted their own sterilisation programmes in specific locations.

"It is about implementing the policy during the right time and place," then-AVA Senior Executive Manager Janet Chia said. "The climate is ready."

An improved rapport between the AVA and the AWGs had been a key ingredient in the establishment of the nationwide programme. Issues such as disagreement about the best approaches to stray management had led to a sometimes strained relationship between the two parties in previous years. Prior to the establishment of the nationwide programme, the AVA had begun taking a more consultative approach to stray management, engaging the AWGs closely in operational work as well as policy implementation and formulation. For example, the AVA had collaborated with the AWG SOSD (Save Our Street Dogs) on the content for a pre-school outreach program about animal welfare; and had also consulted with the AWGs, who frequently worked with dogs in construction sites, in devising a standardised system for managing stray dogs in these sites. The Multi-Stakeholder Collaboration Committee for Animal Welfare (MSCC), which came into being in 2013, had also helped establish an environment of collaboration among the different stakeholders. The committee had created two Codes of Animal Welfare specific to a Singaporean context through collaboration between stakeholders such as Members of Parliament, AWGs, the AVA, and veterinarians, and had also conducted a month-long online consultation to solicit feedback from the public. Other small animal welfare victories for the AWGs, such as the implementation of compulsory microchipping and licensing for every dog sold by pet shops, importers, and farms in 2009 and 2017 respectively, had also helped foster a smoother relationship between the AVA and AWGs.

"All these efforts enable us to build the trust with the AWGs and pave the way for us to work on something bigger—the nationwide TNRM," Tai Jo Fen, then-Deputy Director (Engagement & Outreach) of AVA, said. "When the AWGs see their feedback is taken into account for policy implementation and the crafting of programs, they know that we are genuine in working with them and in listening to their views, and they see the values of being involved in our work. When there are conflicting views, we are also open in sharing with them. The openness in communication helps to build trust. We are partners working on a common cause, which is to safeguard animal welfare in Singapore." Tai also described annual engagement sessions on stray dog management, which involved the AVA, AWGs, other relevant government agencies such as the Ministry of National Development, and academics coming together to present and discuss updates, challenges, and support needed in the animal welfare space, including the TNRM programme. The "closed-door" nature of the sessions made participants more willing to share their thoughts openly, she said.

⁴¹ Audrey Tan, "Animal groups welcome stray dog sterilisation scheme," *The Straits Times*, December 22, 2017, <https://www.straitstimes.com/singapore/environment/animal-groups-welcome-stray-dog-sterilisation-scheme/>.

The consultative approach had thus far featured heavily in the nationwide sterilisation programme. For example, the AVA had asked the AWGs to choose the sites that they wanted to take charge of managing, and solicited their input in crafting a standardized system for managing stray dogs for these sites as the AWGs had considerable on-the-ground experience. The AVA had also taken this approach in the earliest days of forming the nationwide programme, co-creating workflows with stakeholders so as to understand their logistical and capacity limitations. “The old guard has changed,” SOSD general manager Malina Tjhin said. The programme was distinct from previous programmes in that it was co-run by the AVA and AWGs. “They set the standard operating procedures together with us, and they will influence the success of the programme as much as we will,” then-AVA officer Chia said. It was important, she said, that the AVA and AWGs were aligned on how they envisioned the programme would be run, and were honest with each other about what and could not be done.

It was also necessary to take a consultative approach with stray feeders, who were key to the success of the TNRM programme. Ricky Yeo, president of the AWG Action for Singapore Dogs, described stray feeders as the animal welfare industry's “eyes and ears on the ground”.⁴² The stray feeders typically developed close connections with the dogs over long periods of feeding, and could help increase dogs’ familiarity with and thus reduce aggression towards humans. Crucially, they could help in trapping efforts: an AWG would set up a corral around a dog and a stray feeder would enter the corral and leave food in it, after which the dog might enter the corral to eat the food. A trapper could then trap the dog and take it away for sterilisation.

But stray feeders presented their own challenges. While they were eager to feed the animals, they were not always willing to take responsibility for the dogs if the animals needed medical attention, which could be very expensive, or fell pregnant, which led to an even greater population of stray animals. Some were also careless about cleaning up after feeding the dogs, leaving leftovers that attracted flies and rats. This carelessness had occasionally led to fines from the National Environment Agency for littering, which discouraged the feeders from continuing to feed strays. Few wanted to license the animals, especially those living outside of mainland Singapore in places such as Pulau Ubin, an island to the northeast of the mainland. Licensing the dogs required money and time for travel. And while it was important to educate stray feeders about responsible feeding and sterilisation, Animal Lovers League co-founder Mohan Div said, it wasn't always clear who was doing the stray feeding in a given area. “It's not straightforward at all,” he said. Further, some stray feeders saw stray male dogs as their de facto guard dogs, and were thus resistant to sterilising male dogs in case the procedure made the dogs less aggressive.

To some, it was very important to work collaboratively with stray feeders and to avoid criminalizing stray feeding. “You need the cooperation of people who feed...you have to have a close relationship with them,” Div said. With the support of the AVA and the National Parks Board, several AWGs had collaborated to produce a handbook called “Feeding Stray Dogs Responsibly” that described good feeding practices and explained

⁴² Lin Yangchen, “Pet-food donation drive to bring relief to stray feeders,” *The Straits Times*, December 20, 2016, <https://www.straitstimes.com/singapore/pet-food-donation-drive-to-bring-relief-to-stray-feeders>.

the consequences of irresponsible feeding practices such as leaving unattended food behind. The handbook also urged readers to assist in efforts to sterilise stray dogs.

Future Challenges to the Collaborative Approach

Still in its infancy at the time of writing, the nationwide programme had already faced several hurdles. With so many stakeholders involved in the issue of stray management in Singapore, priorities were not always entirely aligned. The Singapore government had to take a calibrated approach to stray management, then-AVA officer Tai said. While the AVA adopted a humane and science-based approach in managing strays via the TNRM programme, the agency also had to work with AWGs to address the concerns of the residents who viewed stray dogs as a public safety issue. “The perspective has always been ‘what decisions do we need to make in the interests of the public?’” Tai said. Part of the consultative approach, she explained, involved getting the various stakeholders to understand the rationale behind the policies and actions taken on certain situations and why they might take particular actions. Then-AVA officer Chia noted that it was never the AVA’s first priority to cull a stray dog, and that the increased collaboration between the AVA and AWGs would ideally lead to the two parties deciding together what to do with a stray animal that was perceived to pose a public health and safety risk.

“[SOSD’s] ‘clients’ are the dogs,” Tjhin said. “The AVA has to look after complaints by people, and have to act. For us, we say you should coexist with the dogs...and weed out genuine complaints from that one person who keeps complaining.” There were also likely to be differences of opinion between different AWGs along the way, the AVA said, as each AWG had its own personality, *modus operandi*, vision, and capacity. It was also difficult to demarcate the areas for which each AWG was responsible. Some were stretched for manpower and did not feel that they could take charge of new areas. Another question mark was regulation: was it possible to make licensing compulsory for occupants of rural, industrial or factory estates who keep grey-area dogs on their premises, and if so, what was the best approach to take for such regulation? Was it possible to enforce compulsory sterilisation of a pet? At the time of writing, there were no laws prohibiting the non-commercial breeding of dogs, though private households were limited to three licensed dogs each. Public complaints after the release of sterilized dogs into suitable locations could also present challenges with regards to which stakeholder would be responsible for managing and taking action on such complaints. Lee noted that it was also important to focus on female dogs in sterilisation, in addition to the target of sterilising 70 percent of strays, to further minimize breeding.

Following the announcement of the nationwide TNRM programme, some culling was still ongoing.⁴³ In response to public backlash following a post by Member of Parliament for Tampines GRC Baey Yam Keng about stray dog sightings in Tampines,

⁴³ Channel News Asia, “MP Baey Yam Keng’s warning on stray dogs in Tampines sparks backlash,” January 12, 2018, <https://www.channelnewsasia.com/news/singapore/mp-baey-yam-keng-s-warning-on-stray-dogs-in-tampines-sparks-9853532>. For example, in December 2011, the AVA captured four dogs in the week following a dog bite incident at Punggol. The dogs were subsequently euthanized as they were deemed too “aggressive” to be re-homed.

Baey noted in an Instagram post that the AVA would conduct “a professional assessment of potential threats that animals might pose to public health and safety” and may have to take action if a given animal presented health and safety concerns. “Culling is not the first action and used [sic] ONLY as a last resort,” he wrote.

Then-AVA officer Chia said that while she anticipated many more challenges arising as the nationwide programme progressed in its implementation, she was optimistic that relationships between the AVA and AWGs would grow stronger in the process. “We are learning how to do it together,” she said. “It’s a matter of thrashing it out and fine-tuning our approaches, and this should facilitate understanding on the different interests and perspectives that each stakeholder has.”

Discussion

Underlying issues of stray dog management in Singapore is the reality that stray- nuisance complaints or dog-biting incidences are prone to value and factual disputes. Ronald Schmidt, Sr. defines value disputes as disagreements over “interpretations of meaning and significance”, and factual disputes as issues pertaining to “cause and effect”.⁴⁴ He argues that it is essential to distinguish factual from value disputes in order to identify the best approach for conflict resolution. While cause and effect analysis is useful in tackling the former, it (or other value-neutral analysis approaches) may be ineffective in resolving value conflicts or identifying what is at stake.⁴⁵

In the case of stray dog management, value disputes arise when the various animal welfare stakeholders possess incommensurable goals or normative commitments as to how stray-related complaints or bite incidences ought to be handled, or when they have different understandings of what is at stake in the conflict over animal welfare.

Factual disputes arise when the line of causality surrounding bite incidences is unclear: was the dog provoked into biting when it would otherwise have been peaceful? Which dog in the pack was the perpetrator? In such situations, managing the dogs subject to these complaints via neutering or mediation under TNRM might not entirely ameliorate public safety risks or address public dissatisfaction. Furthermore, it is challenging to justify impounding a dog on public safety grounds when the veracity of a nuisance-complaint is questionable, or expending resources to trap an entire pack of dogs when it is unclear which dog in the pack poses the greatest safety risk.

Schmidt’s value-critical policy framework⁴⁶ helps policy analysts make sense of policy conflict stemming from factual and value disputes by analysing the *goals* of public policy. As an interpretive approach to policy analysis, the value-critical framework “subjects goals and values to critical review, that is, values themselves become the object of analysis; they are not merely accepted as a voluntary choice of the will, unamenable to further debate”.⁴⁷

Can the value-critical approach explain why AWGs and government undertook a collaborative approach to stray management, in spite of their differences? The policy-analyst ought to consider the following questions:

⁴⁴ Ronald Schmidt, "Value-critical policy analysis," in *Interpretation and Method*, ed. Dvora Yanow and Peregrine Schwartz-Shea (New York: M.E. Sharpe, 2006), 300-315.

⁴⁵ See Ruth W. Grant, "Political theory, political science, and politics," in *Political Theory* 30, no. 4 (2002): 577-595. "The aim throughout is to develop a narrative framed in terms of a complex and comprehensive understanding of the issues at stake in the conflict, a narrative that seeks to give each relevant policy camp’s perspective a “fair hearing” that accurately represents the policy advocates’ claims and understandings of the contexts and stakes involved in the policy dispute.”

⁴⁶ This framework was first conceived by Martin Rein in his book *Social Science and Public Policy* (1976). The value-critical is an interpretive approach to policy analysis, in contrast with positivist “value-neutral” or “value-committed” approaches—that either assume the values of policy stakeholders as givens and focus analysis on the extent to which policy can succeed or fail to achieve its goals, or analyzes policy in terms of the stakeholder’s ideologically-grounded values. See Schmidt 2006:301-2

⁴⁷ Martin Rein, *Social Science and Public Policy* (New York: Penguin Books, 1976), 13.

Core Beliefs and Biases—As a policy- analyst or maker, what is my value position with regards to welfare of stray dogs in Singapore? Where do my sympathies lie with regards to the animal welfare stakeholders?

The Issue and Key Stakeholders—What is the main issue that places stakeholders in conflict with each other? Who are the animal-welfare policy stakeholders? What motivates each stakeholder to care about stray management?

Context and Policy Proposals—What is the historical and social setting in which Singapore’s animal welfare is contested?

Fundamental Values—What is the meaning and significance of TNRM to each stakeholder? How do these meanings manifest themselves in each policy proposal? What are the core values underpinning each stakeholder’s proposals for stray management (e.g. justice, compassion, common good)?

Value-Critical Analysis—What is the contextual frame of reference within which stakeholders construct their rhetoric on animal welfare? What is the internal logic justifying each stakeholder’s moral arguments? What are the value claims and assumptions undertaken by each stakeholder?

Schmidt highlights that the value-critical policy analysis approach is iterative, interpretive, and calls for the policy analyst to not only “make judgments”, but also make explicit the reasoning and standards behind these interpretations and judgements. The goal is to facilitate a dialogic process amongst stakeholders that might clarify or even resolve policy conflict.