Understanding the Need: Dog and Cat Reproduction Control Around the World – Hiby

Introduction
The World Society for the Protection of Animals (WSPA) has been working on the issue of stray dog and cat control for over 25 years. Last year we worked with local and central governments in 27 countries on this issue. We also supported 10 projects that provide working models of humane dog and cat population management in different regions of the world; together these projects sterilised nearly 20,000 dogs and cats, vaccinated over 35,000 and provided veterinary treatment for over 15,000 dogs and cats in 2009. In this paper I will use the term “companion animal” to mean dogs and cats, although it is noted that these animals are often kept for working purposes instead of companionship and many other species are kept as companion animals.

We are driven by the desire to see the end of the use of cruel methods of stray control. Poisoning, shooting and electrocution of dogs and cats are sadly still utilised as the authorised approach to stray control in many countries. We aim to replace these with humane and comprehensive approaches to managing companion animal populations1 that work towards the vision of all dogs and cats being provided with some form of responsible ownership or adequate guardianship.2 (These terms are comparable and either can be used, depending on which term is most suitable for the country and culture in question.) In order to achieve this vision, we would need the supply of companion animals to match the demand. Although the use of such terminology should be done with care, as these are sentient beings and not commodities, the concept still applies when we are looking to reduce the unwanted companion animal population. This is where reproduction control plays an extremely important role, by limiting and controlling supply.

Factors relevant to reproduction control
Stray companion animal ownership
It is important to start by addressing a relatively widely held belief that stray dogs are unowned, “wild” or “feral.” In the ICAM (International Companion Animal Management) Coalition guidance, we used the term “roaming dogs” instead of “stray dogs” and defined these as dogs that are not currently under direct control or are not currently restricted by a physical barrier. Hence, a stray dog could be an owned dog that is allowed to roam, an owned dog that has been abandoned or lost, or an unowned dog. In our experience of this issue in the developing world, we have found the first of these categories to be the most common — an owned dog that is allowed to roam. This is especially true when you include in this category dogs that are “owned” by more than one person, a community-owned dog. The sense of ownership over the animal is fairly limited, but the community will feed and provide limited care to the dog. It regularly interacts with members of the community, especially the children, and may even have a name. The important point about this factor for reproduction control is about delivery of any intervention. We would never think to change the reproductive state of a companion animal in this country without discussing and agreeing upon this with the owner first. The situation in the developing world is no different: even though these companion animals may be more accessible to intervention without involving an owner or community, we still have the ethical responsibility to engage these people. The other benefit of engaging an owner or community in delivering reproduction control is that this builds on any current sense of responsible ownership and provides the idea opportunity to address the other issues of care required for an acceptable level of welfare.

Example of engaging owners and communities in reproduction control:
Colombo (capital city of Sri Lanka) dog population management

Since 2007, WSPA has been working with a local NGO, the Blue Paw Trust, and the Colombo Municipal Council to run a humane and comprehensive population management programme for dogs in Colombo. Our initial motivation for engaging in this city was the CMC pound, which was keeping dogs they had caught on the streets in poor conditions and using gas chambers filled with car exhaust fumes to kill them. Both the local NGO and the CMC itself wanted to replace this with a humane alternative.

1. Please see the Humane Dog Population Guidance document by the International Companion Animal Coalition (www.icam-coalition.org) for an explanation of what constitutes humane and comprehensive management.

2. “Adequate guardianship” is a term developed by IFAW that describes the minimum care needed for a dog or cat in order for the animal to maintain an acceptable level of welfare.
Our population survey and questionnaire in 2007 estimated that 46% of the 3,300 roaming dogs were actually owned dogs with an identifiable owner but allowed to roam. The other half did not have a single-referral household but the vast majority were fed by local communities. The project considered adopting a Catch, Neuter and Release (CNR) approach (as many other NGOs in Sri Lanka have) but staff feared that this might risk establishing roaming dogs as the responsibility of NGOs rather than building on the sense of ownership that already exists, at least in the form of concern and some care for roaming dogs.

So they employed a Community Liaison Officer to help develop a “community-led” approach to sterilisation services. Owners are asked to bring their dogs to a mobile clinic that travels around the city and individuals within the community are encouraged to act as “community carers.” They initially help with identifying and locating roaming dogs that have not so far been brought to the clinic, followed by providing limited post-operative care and (potentially) will also help with revaccination the following year. The concept here is to develop a responsible dog “owner” from an initial foundation of concern for a roaming dog. Convincing the community to help with the sterilisation and vaccination of “community dogs” was slow to start, but now dogs are brought to the mobile clinics by community members with limited catching required by project staff. Some community carers even volunteer to help with post-op care of roaming dogs in other communities.

More than 85% of the dogs in Colombo are now vaccinated against rabies; this includes roaming dogs, which the local NGO has been vaccinating with community involvement. In addition, the percentage of female roaming dogs that are sterilised as well as vaccinated is between 60% and 70%. As a result, the number of rabid dogs caught in Colombo fell from 33 in 2007 to 17 (11 confirmed cases) in 2008. The percentage of lactating females on the street also fell from 20% in 2007 to 10% in 2008, indicating a significant reduction in reproductive capacity of roaming dogs; we predict this will be followed by a reduction in the number of roaming dogs.

Also of note is that this project has been piloting Dog Managed Zones (DMZ), areas on or around private property (e.g., offices, army bases, hospitals) where roaming dogs live and are fed by workers or scavenge on garbage. In collaboration with the private companies that own these areas, these dogs are caught, sterilised, vaccinated and released (very focused and localised CNR); feeding stations are set up to reduce conflict with people but also allow feeding of dogs by workers who like them. The private companies are asked to donate to the costs of setting up this DMZ. The outcome is a safe and healthy population of dogs that prevents any migration of other dogs into the area.

A larger proportion of the stray cat population is apparently unowned as compared to dogs, perhaps because cats are seemingly able to survive better as strays than dogs. However, the lack of ownership of a stray cat again cannot be assumed, hence we also make every effort during interventions to identify owners or community individuals who care for cats.

Too many dogs and cats?

In the introduction I talked about matching supply with demand and purposefully did not talk about decreasing the size of the companion animal population. It is often assumed that the problem of stray companion animals is caused by an over-population of animals. This will be the case in some situations, but not always. Sometimes it is not the number of animals that becomes overwhelming but the reality that the type of animal does not match the demand and hence there is a population of unwanted animals. People do want to have companion animals — they have roles and benefits to people in the developing world, as they do in the developed world — but they need to manage the supply so it fits their demands. This is another reason why we work hard to engage owners and the wider community in delivering reproduction control, so that they can select which companion animals they want to keep and breed from and which they don’t want offspring from. In this way, we are trying to create a reproductively healthy closed population, where offspring born into the population are wanted and cared for, and the community does not need to import dogs from other areas to meet demand. Limiting movement of companion animals between communities in the developing world is beneficial for disease control, especially rabies, and discourages the development of commercial breeding facilities, which are quick to spring up to capitalise on an unmet demand.

It is important to note at this point that demand is also flexible and subject to influence, hence we also aim to provide information so that people can make an informed decision to acquire a companion animal with full knowledge of their needs and the responsibility this brings.

3. CNR involves catching dogs or cats (usually termed Trap, Neuter and Release, TNR, when used with cats) on the streets, sterilising and vaccinating them before releasing them at the point of capture.
Example of building a reproductively healthy closed population:
Zanzibar (Tanzania) dog population and rabies programme

WSPA has been working with the local government on Zanzibar for many years. The method of rabies and dog control used to be shooting stray dogs with shotguns, especially following a rabies outbreak or complaints from local people, such as reported livestock predation by dogs. We helped them set up a mobile clinic to deliver mass rabies vaccination and sterilisation across the island. A Community Liaison Officer visits each village and works with the community there to identify which dogs they like and would like to breed from and which dogs they would prefer didn’t breed, either because of some unwanted characteristics of the dog itself or because litters from that dog tend to have poor survival. They then help the community catch these dogs and bring them to the clinic for sterilisation. All the dogs receive vaccinations and treatment for parasites.

Side effects of reproduction control
Since WSPA is an animal welfare organisation, the side effects of any method used for reproduction control are clearly important to us for the sake of each animal’s welfare. We invest heavily in training vets to carry out surgical sterilisation in a way that minimises potential side effects; we expect complications requiring further veterinary care in less than 1% of cases.

But once the ownership status of stray companion animals is accepted, it becomes even clearer how important it is to limit side effects of any reproduction control methods. It takes many months or even years to build a good reputation for an intervention and this is essential if you want to engage owners and communities in the delivery of an intervention. However, bad reputations based on animals becoming sick or even dying after sterilisation can be built surprisingly fast and can last a long time.

The role of reproduction control in dog population management
Controlling reproduction of companion animals if you want to achieve effective population management is clearly incredibly important. However, reproduction control alone is not population management. You also need to address:

- How and why companion animals are acquired, through education and control of commercial breeding and selling
- How they are cared for, through education and ensuring there is access to affordable basic veterinary health care
- How and why they may become unwanted, through education and providing an avenue for rehoming

This will all need to be underpinned by legislation to protect animals from cruelty and registration and identification to encourage responsible behaviour.

Looking forward to the next 20 years or more, we can see that the issue of companion animal population management, and hence reproduction control, is set to increase, perhaps dramatically so in some countries. In Asia, we see astounding growth in companion animal ownership, but a seemingly delayed growth in the concurrent knowledge about companion animal needs or small animal veterinary medicine, hence increased abandonment of unwanted animals. In addition to this, increasing affluence seems to be correlated with less tolerance for stray companion animal populations. Taken together, this will lead to an increasing demand for better population management.

WSPA position on chemical sterilants and contraceptives
WSPA does not currently fund the use of chemical sterilants or contraceptives in any of the projects we partner in. However, this is an area we are extremely interested in, not least because as a charity we are responsible for spending our donors’ money in the most efficient way possible. The cost of surgical sterilisation in the projects we support is on average $7.50 ($3-$15) for the medicine costs and $30 ($10-$52) for the full costs, including staff and clinic-running costs for each dog or cat. The majority of the funds WSPA provides to projects are spent on delivering surgical sterilisation. If a chemical sterilant or contraceptive could be delivered faster than surgery, the reduction in staff and clinic-running costs could be used to balance higher medicine costs, if this was unavoidable. It would also be beneficial to allow our vets and animal handlers more time with each animal (and its owner) in order to address the many other aspects of their lives that impact on their welfare. Hence, we feel responsible for supporting the development of chemical sterilants and contraceptives, potentially via providing the opportunity to field trial methods to refine delivery protocols and test the impact of the method on population dynamics.

From our perspective of working in the developing world, we would like to clarify and add to the priorities for non-surgical products outlined by the ACC&D:
Approved by regulatory agencies as safe (for animals and for the humans administering) and effective

- As an animal welfare organisation, the safety of a product for animals is clearly very important. We would also need this product to be safe for animals at varying life stages — for example, young and adult animals and females that are currently pregnant (although clinical exams are possible, they may not be thorough enough to identify pregnancy, especially in early stages).

Permanent, though there may be some opportunity for long-term (3+ years) products

- Permanent is clearly ideal, but the need for rabies boosters means that most companion animals will be targeted for vaccination every year. Hence, as long as the product was not cost-prohibitive and could be delivered alongside a rabies vaccination, even contraceptive effect for one year would be beneficial.

Deliverable in a single injection or treatment

- A product that needed to be delivered via an injection would be practical, as companion animals can be handled or caught by well-trained animal handlers and would presumably need a basic clinical exam prior to delivery. Hence, although an oral delivery would be useful as it limits the amount of handling, this is not essential and would presumably be more of a risk to non-target species.

Products available for effective use in both male and female, dogs and cats

- In order to efficiently provide population control, females are the priority since fecund females usually are the limiting factor in population growth. Hence, a product that is effective for both sexes is ideal but not essential.

Documented effects on behavior and health

- Reduction of sexual behaviour is often beneficial, as these are often considered nuisance behaviours and can be a strong motivation for population control.

Can be provided at affordable rates for use in indigent or low-income client populations

- The need for companion animal reproduction control in the developing world is extremely large and is set to increase, but funds available to pay for sterilisation are extremely limited. Even at an average cost of only $30 per animal, local people are only able to cover this cost in a minority of cases. Hence, to really be viable in most of the developing world, the full cost (medicines, staff and clinic operation included) of delivering a product would have to be significantly lower than $30 per animal.