## **Case Study 1**

Using multiple methods to assess the dog population in Kathmandu, Nepal



## Summary:

Knowledge gained from street surveys, questionnaires, focus groups and epidemiological data were combined to build a picture of Kathmandu's dog population dynamics. This included key learnings about dog welfare, roaming owned dogs, abandonment and community care; wisdom needed to create a customized DPM system to suit Kathmandu.



In 2016, the Kathmandu Metropolitan City authority partnered with HSI and a local organisation, the Jane Goodall Institute Nepal, to launch 'Manu Mitra' (Nepalese for "friend of human"); see <u>Case Study 3</u> for the community engagement approach employed by this dog population management initiative.

Multiple methods were used to explore the dynamics of the dog population in the city and to establish baselines for subsequent monitoring of indicators. This included a **street survey** of Kathmandu's roaming dog population to establish density and health. At first light, teams (consisting of a driver and observer) drove on motorbikes slowly along eight routes covering the city, recording the sex, age, reproductive status and health of dogs seen. This gave baseline estimates an average density of 14.2 adult roaming dogs per km of street surveyed, of which 33.1% were female. On average 18.7% of adult females were spayed and 8.9% were lactating, while 4% of males were castrated. Roaming dog welfare appeared relatively good, with 1.3% thin or emaciated dogs and 6.9% of dogs with visible skin problems. The surveys have subsequently been repeated every six months to monitor change in the roaming dog population.

Two routes were selected for interviewing every 20th household using **questionnaire** to assess dog-related knowledge, attitudes and practice among Kathmandu's residents. Data from the 420 interviews conducted revealed a very large and generally healthy owned dog population; 27.9% of households owned dogs, with an average of 1.16 dogs per household, yielding an estimate of 82,299 owned dogs, of which 43,619 (53%) were always allowed to roam freely on the streets. Of these owned roaming dogs, 73% of females and 88% of males were not sterilised. These owned dogs had relatively long lifespans (36.9% of the population was over 7 years old), and few visible health problems (10.5% were thin, none were judged to be emaciated, 10.5% had visible skin problems and 6.9% had visible injuries). Abandonment emerged as a concern; of 30.5% of people who knew someone in their community (potentially including their own household) whose dog had puppies in

the last 12 months, 82.9% of these knew at least some of the puppies were killed or abandoned, and a further 12.5% of people knew someone who used to own a dog(s) but decided not to keep it in the past 12 months. 38.1% of respondents claimed to provide regular care to a street dog and, when asked their opinion on the number of dogs roaming on their block, 30.2% said it was "about right", and 12.7% said there were "too few" or "far to few" dogs.

Baseline epidemiological data was collected from the infectious disease hospital relating to 82,988 animal bite victims treated over the previous 5 years, and over a three-week period in August 2016, 915 patients presenting for post-exposure rabies vaccine were interviewed. In 44% of these dog bite cases, the person was reportedly running away from the dog and 45% were shouting at the dog. Of the 403 people who knew the ownership status of the dog that bit them, 43% reported it was their own dog, 27% that it was their neighbour's dog, 24% said it was a community dog.

Qualitative baseline information was generated from **participatory** project planning and research including wardlevel focus groups with dog owners, teachers, street sweepers, youth groups, meat sellers and temple priests, enabling a deeper and more locality specific exploration of knowledge, attitudes and practice. Some concerns that emerged were that sterilisation of roaming dogs would lead to the "extinction" of the local breed, or that owned dogs should not be sterilised



because there is a high demand for puppies. Meat sellers spoke of reserving their choice cuts of meat for local dogs, and the importance of roaming dogs to provide security to a community. Temple priests promoted "family planning" for dogs but felt they should be free to roam, not confined on chains or in houses. Rag-pickers complained of people asking them to dump their sick or unwanted dogs.

When combined, the results of these various methods enabled the stakeholders to build a picture of Kathmandu's dog population dynamics. Whilst the city had a high density of roaming dogs compared with other places in the world, the welfare of these dogs was relatively high, and a significant proportion were owned dogs, allowed to roam. There was evidently a lot of care available for dogs in the community and high tolerance of roaming dogs. Intensive efforts in recent decades, however, had aimed to eliminate or reduce the roaming dog population. Rather than assuming the community wanted fewer or no dogs, Manu Mitra began piloting a system which enables communities to create their own vision for animals in their locality. Key learnings from the assessment were used to design communications, build and test social social structures at the ward level, and support the community with focused education and dog population management interventions.

