

A report on the "Strategies to Control Rabies and Stray dogs in Kerala through Animal Birth control (ABC), Vaccination and Public awareness programme"

Recommendations by Indian Veterinary Association, Kerala. 2014



Introduction:

The bond between man and dog had its beginning 12-14 millennia ago, in Eurasia, where a reciprocal relationship emerged. Provided with scraps of food, the wolf soon became a frequent and welcome visitor, warning man of imminent danger and later assisting him in hunting. There began the domestication of dog and the establishment of a very strong bond between man and animals that has no equals. Today, man violates that bond by allowing dogs to breed excessively and then abandoning them in great numbers, thus creating hazards for the dogs themselves and creating a considerable risk to human health. All too often, authorities confronted with the problems caused by these dogs and have had turned to mass destruction as a way of finding an immediate remedy, just only to discover that the destruction had to continue, year after year, with no tangible results. Moreover, by reducing temporarily the population of stray dogs, the authorities had improved the chances of survival of the left outs and provided fresh opportunities for newly-abandoned dogs. It is now been recognized that the removal of surplus dogs alone, cannot solve the problem, unless combined with other measures such as registration and neutering of dogs and education of the public ¹.

At a certain population density the birth rate and the death rate become equal, the population comes to equilibrium and the population growth levels off. This more realistic description of population growth is referred to as logistic growth. The upper limit at which population growth levels off is called the carrying capacity of the environment. Every habitat has a specific carrying capacity for each species. This specific carrying capacity essentially depends on the availability, distribution and quality of the resources like shelter, food, and water for the species concerned.

The density of a population of higher vertebrates (including dogs) is almost always near the carrying capacity of the environment. Any reduction in population density through additional mortality is rapidly compensated by better reproduction and survival. In other words, when dogs are removed, the survivors' life expectancy increases because they have better access to the resources, like food and there is less competition for the same^{2,3,4}.

A few hundred surgeries performed each year, will not reduce the number of street dogs. Each area had its "holding capacity" for street dogs and this was determined by the availability of food sources. In most cases, this source is a garbage dump or food being thrown in the open by the public.

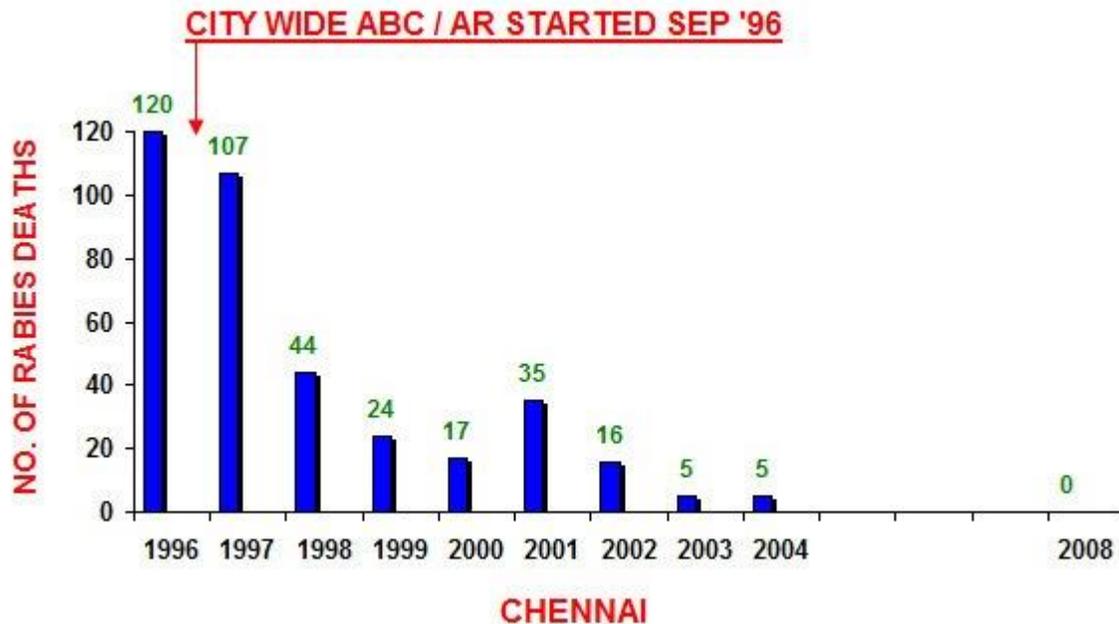
In 1990, World Society for the Protection of Animals (WSPA) and World Health Organization (WHO) brought out "Guidelines for Dog Population Management" followed by WSPA's guidelines for "Stray Dog Control", by Dr. K. Bogel, Chief Veterinarian, Public Health Unit, WHO, John Hoyt opined that, "All too often, authorities confronted with the problems caused by these dogs have turned to mass destruction in the hope of finding a quick solution, only to discover that the destruction had to continue, year after year with no end in sight". The age-old method of 'catch and kill' had not worked and never will, which we all have witnessed in all the major cities including Chennai Municipal Corporation and in various panchayaths in Kerala^{5,6}.

The multi centric study of rabies in India by WHO from 1993 to 2002, revealed the incidence of human rabies cases in India was more or less at the same level during this period at about 17,000 cases per year^{7,8}, even after the implementation of various strategies to control rabies and stray dog population.

The analysis of the various strategies implemented in India and abroad, for the control of stray dog population and rabies and after, the careful evaluation of their results , and considering the socio-economic scenario in Kerala, control of stray dog population and rabies, will only be possible through a systematic ABC, vaccination and public awareness.

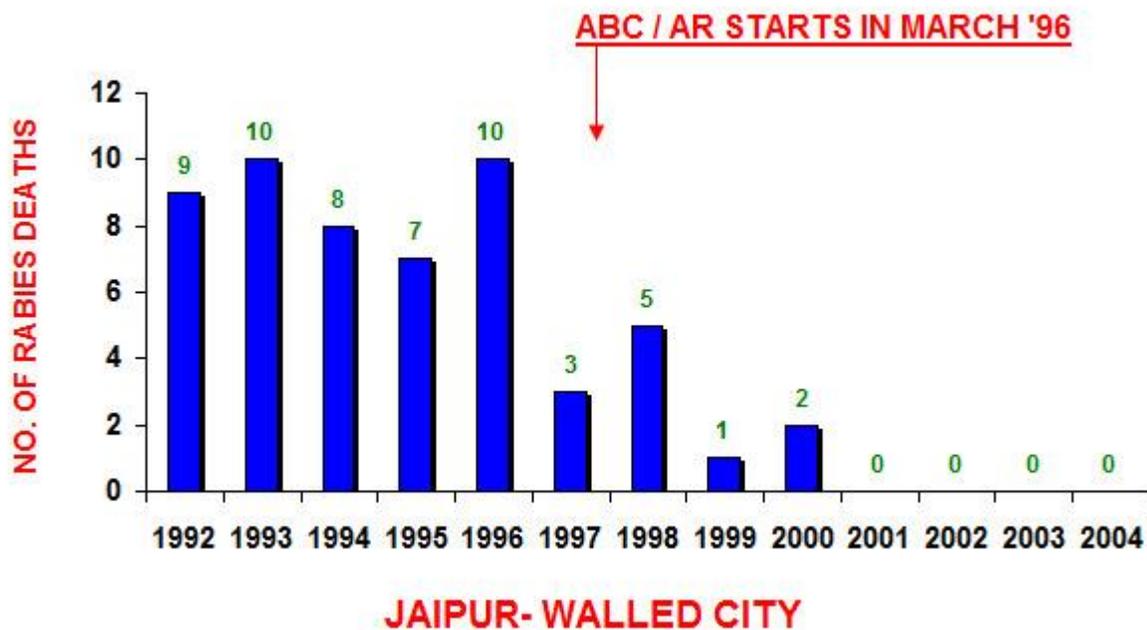
The purpose of the ABC programme is to bring down the number of street dogs in a humane manner and, thereby, more importantly, to bring down the number of cases of rabies in humans and animals. The statistics in Graph 1,2,3 & 4 reveal that the ABC-AR programme have been a success in controlling the number of human cases of rabies in the three main cities of Chennai, Jaipur and Kalimpong.

Graph 1. Year wise details of number of human cases of rabies in Chennai



[Courtesy: Ministry of Health and family Welfare, Govt. of Tamil Nadu, India]

Graph 2. Year wise details of number of human cases of rabies in Jaipur



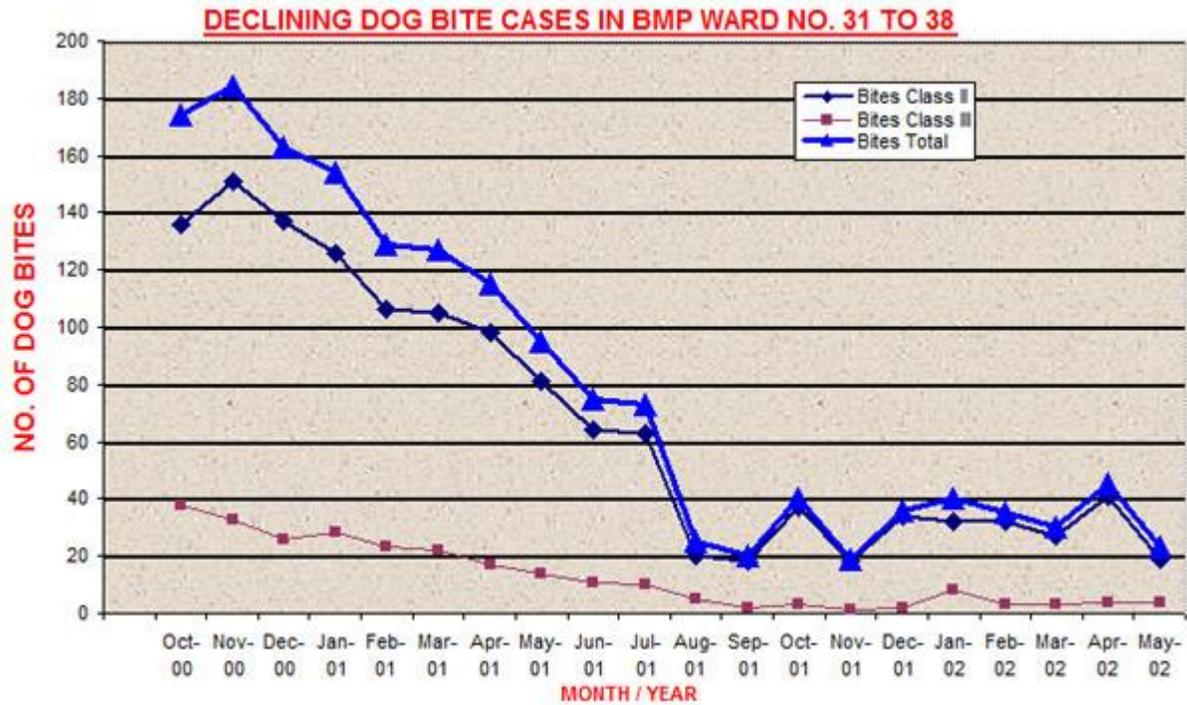
Courtesy: **The Success of the ABC-AR* Programme in India**
 (*Animal Birth Control – Anti-Rabies) By Dr S Chinny Krishna

Graph 3. Year wise details of number of human cases of rabies in Kalimpong



Courtesy: **The Success of the ABC-AR* Programme in India**
 (*Animal Birth Control – Anti-Rabies) By Dr S Chinny Krishna

Graph 4. Reveals the year wise details of number of human cases of rabies in Bangalore City



Courtesy: **The Success of the ABC-AR* Programme in India**
 (*Animal Birth Control – Anti-Rabies) By Dr S Chinnay Krishna

Kerala Scenario, at a glance

With the enacting of the Dog Rules Act 2001 by the Indian parliament, the control of dog population by killing came to a slow stop and leading to the explosion of stray dog population. One of the main reasons, for this uncontrolled increase in stray dog population is mainly because of the free availability of food.

The main reasons for the increase in population of stray dogs in Kerala and their menacing behavior are:

- a) The habit of our people to dump all waste including food waste in the streets or improper or unscientific waste disposal.

- b) The unlawful dumping of meat and poultry waste in certain areas by vendors, due to the lack of rendering units or for other reasons.
- c) Lack of scientific slaughter houses and rendering units in nearby vicinities, which leads to non licensed slaughter in many panchayaths.
- d) Irresponsible pet ownership where, people don't sterilize the dogs owned by them and they stray the litter of unwanted pregnancies in the street. The cruel treatment of dogs in various situations or inhumane ways of handling animals causes enmity towards human beings.
- e) Surplus availability of free food in the surrounding with occasional starvation due to many reasons, inculcate wild behavior in dogs, leading to attack of small ruminants, pets and school children.
- f) Lack of awareness among public, and their support in controlling stray dog population.

Estimate of stray dog population

It's estimated that each district of Kerala has at least 35000 to 50000 stray dogs. Every panchayath or municipal area will have on an approximate average 500 street dogs.

ABC implementation:

The Animal Welfare board of India has come out with a standard operating procedure (SOP), which is appended herewith. (Appendix 1). This SOP has to be followed when the ABC is being implemented in any area.

The ABC programme that was successfully implemented in Jaipur is also appended for reference. (Appendix 2)

A veterinarian can perform three to four surgeries per day. Birth control surgery is a major surgery involving general anesthesia and opening the abdomen in case of female dogs and removing the testicles in male dogs and is not a simple procedure like vasectomy or tubal ligation in human beings. It is time consuming and requires trained veterinary doctors. So this being the situation to cover the entire population over a period of at least two years a minimum of 30 doctors needs to be employed every district. One Vet will perform surgery and the other vet shall take care of the general anesthesia during the entire procedure and shall monitor the patient till it recovers from anesthesia. 30 doctors can perform around 100 surgeries /day. In that case they can operate on 25000 dogs /year and cover the entire population in around two years. During the subsequent years also they have to operate new ones being introduced into the street by people who tend to throw puppies of unwanted pregnancies into the streets as well as conduct year round vaccination of all these street dogs every year. If the average number of surgeries to be performed are 100/day then at least 20 ABC assistants need to be trained and employed for dog catching, cooking food for them, handling them medicating them and releasing them back into the spot where they were caught from. If 100 dogs are operated on one day and they are kept for observation and medication for three post operative days then shelters to keep at least 300 to 400 dogs should be constructed at different points with a holding capacity of 60 – 80 dogs at one point. A minimum of five vans and drivers need to be employed for catching around 100 dogs /day. The above staff should be deployed in at least 5 points within a district to get maximum penetrability and to ensure better man and logistics management according to

Dr. Ilona Otter, who is an expert in ABC surgery and played vital role in various strategies for the control of stray dogs in India.

Pre-requisites for the ABC programme:

- An operation theatre, pre-operation preparation room and post operative recovery room need to be constructed. Dormitory facility for staff and a kitchen as well as mess hall need to be constructed. Provision for rooms for residential vets and staff also has to be made.
- The requisite medicines and consumables, aprons and surgical wear, Instruments in appropriate numbers, autoclaves, washing machines, iron boxes, Operation tables, lights etc need to be installed.
- The operation theatres should be fully equipped and three phase connection is a must to run the large sized autoclaves. Toilet and other amenities should also be provided.
- Kennels to keep dogs in appropriate numbers.

Recommendations:

On the basis of above observations, analysis and evaluation of the results we make the following recommendations for the control of stray dog and rabies in Kerala:

Major Recommendations:

- Regular high intensity ABC surgeries throughout the year by a totally dedicated staff and appropriate infrastructure at Block level.
- Year round vaccinations for street as well as owned dogs.

- A total ban and imposition of heavy penalty for those dumping food materials in streets /in the open.
- Entrusting NGO's to collect segregated waste from each house hold and setting up of scientific waste management facilities.
- Encouraging poultry and pig rearing so that waste food can be utilized and meat and egg production can be increased, thus attaining self sufficiency.
- Effective implementation of household biogas plants for disposal of domestic wastes.
- Establishment of scientific slaughter houses and rendering units for the slaughter of cattle and poultry in each district and ban on sale of live chicken and illegal slaughter.
- Making dog ownership a licensed procedure. Issue of licenses and its renewal every year, a certificate of Anti rabies vaccination and neutering should be made mandatory. Fines/penalties to be imposed for noncompliance to this rule.
- Only breeding dogs should be allowed to be kept un neutered.
- Full throttled extension activities through various media and in person, to create awareness among public for an empathy to street dogs, their usefulness like their role in controlling rat population in an area citing examples like the epidemics of plagues in Surat, Gujarat due to the increase in rat flea population, following mass killing of dogs in that city. Making the public aware of the self protection methods and first aid regarding dog bites as well as waste management.

Subsidiary considerations:

- The detailed project report for establishing a unit needs to be prepared for financial assessment.
- While considering these recommendations the long term results, future expenses on post exposure rabies treatment, reduction of the mental stress associated with dog bites and the associated cost of treatment for dog bites need to be considered.
- Licensing fees collected by panchayats/local bodies can increase their revenue and can be further used as source of fund for future ABC programme in the area.
- Funding from various organizations like Animal Welfare Board of India may be sought.

- Panchayats should ear mark a certain percentage of their plan fund each year exclusively for ABC, which can be used for the running of the programme.
- The block panchayats should identify a location to construct the ABC facilitation centre. The construction cost and cost for setting up the primary infrastructure for the same can be borne by them and by the District panchayat as well as shares from each panchayat within that Block Panchayat.
- Salaries of staff should be paid by the state government and selection may be done through PSC/ other recruitment modalities.
- Setting up of slaughter house should be done with private participation/ on Build Operate and Transfer basis.
- Pig and poultry rearing can be encouraged with subsidize by the Department of Animal Husbandry, Kerala.
- A district Coordinator not less than the rank of an Assistant Director and a state level Joint Director should be appointed for the time to time evaluation and effectiveness of the programme.
- The persons involved should work as a separate wing/entity under the director of AHD, which will help in effective involvement in the programme.
- Officers in Department of Animal Husbandry, Kerala who are already overburdened with work should never be deputed or transferred to this wing, but we recommend strictly a separate entity for this.
- The cost of setting up the infrastructure in each Block of Kerala is to be borne by the District, Block and Grama panchayats. Location can in the premises of a VPC/VH/ VD in that block which can afford space for the purpose. (A Govt. Order need to be issued). The running costs for the programme are to be ear marked by the panchayats every year by way of a Government Order issued for the purpose.

NB:

The Government incurs no expenditure for the establishment of the facility in each Block. The pay for the staff is the only liability on the part of the Government, which can also be funded by the panchayats from their PLAN fund by way of a Government Order. Many panchayats don't have Own fund to pay for salaries and hence GO needed to pay salaries from the PLAN funds of all the panchayats in Kerala at a fixed rate.

Conclusion

If these recommendations are followed in letter and spirit, the menace of street dogs can be controlled effectively and in a humane way over a period of time. Moreover, the incidence of human as well as animal rabies cases/deaths can be controlled effectively in strict time frames.

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