

Contract Ref.: AFCD/SQ/190/11/C
Provision of Population Survey of Stray Dogs at
Designated TNR (Trap-Neuter-Return) Sites
in Hong Kong for 3 Years



 Ecosystems Limited
生態系統顧問有限公司

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Background

- Stray dog nuisance such as barking, biting, environmental hygiene issues etc. are problems in Hong Kong.
- Stray dog Trap-Neuter-Return (TNR 捕捉、絕育、放回) was proposed by animal welfare organizations (AWOs) as an additional method to control the stray dog and its related complaints.
- However, there is a lack of scientific study to prove the effectiveness of TNR in HK.
- To assess its effectiveness, in early 2012 AFCD agreed to assist two AWOs (SPCA 愛護動物協會 and SAA 保護遺棄動物協會) to conduct a stray dog TNR trial.
- The two programme coordinators (PCs), i.e. SPCA and SAA, had proposed several trial sites and eventually Cheung Chau and Tai Tong, Yuen Long were selected with community support in 2014.
- Exemptions were then granted under Cap 167D and Cap 421 to the PCs and their carers in Nov 2014 to facilitate their implementation of a three-year trial from 16 Jan 2015 to 15 Jan 2018.
- Ecosystems Ltd. was commissioned by AFCD as an independent body to carry out population survey of stray dogs and to monitor the progress and assess the effectiveness of the trial.

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TNR Site - 1

Cheung Chau study area

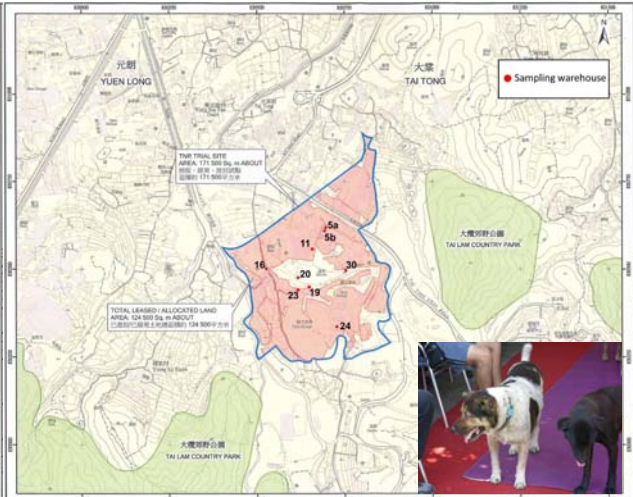
Programme Coordinator - SPCA



TNR Site - 2

Tai Tong Shan study area

Programme Coordinator - SAA



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Survey Objectives

- To carry out monitoring program, through widely adopted scientific methods.
- To evaluate TNR by comparing the results with the targets set in the protocol.

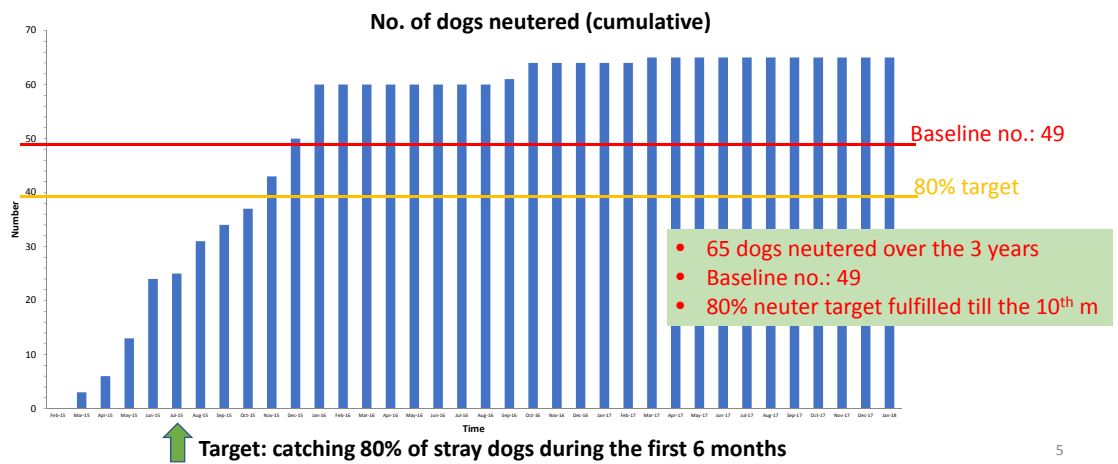
Survey Methodology

- Baseline survey – dog survey in the initial stage (the first 3 months).
- Monthly monitoring – monthly survey after the TNR start-up till the end of the trial (data of 3 consecutive months for comparison).
- Cheung Chau : transect count (fixed routes) included walk-through and active search.
- Tai Tong Shan : fixed-point approach, the warehouses on the trial site were visited.
- Dogs were assigned with a code and a photo ID inventory was prepared.

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Results and discussions (Cheung Chau trial site)

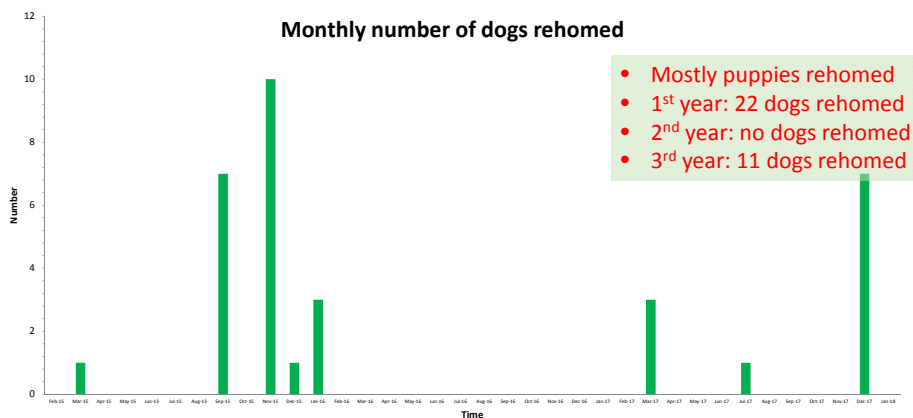
TNR implementation in Cheung Chau study area (information from SPCA)



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Results and discussions (Cheung Chau trial site)

TNR implementation in Cheung Chau study area (information from SPCA)



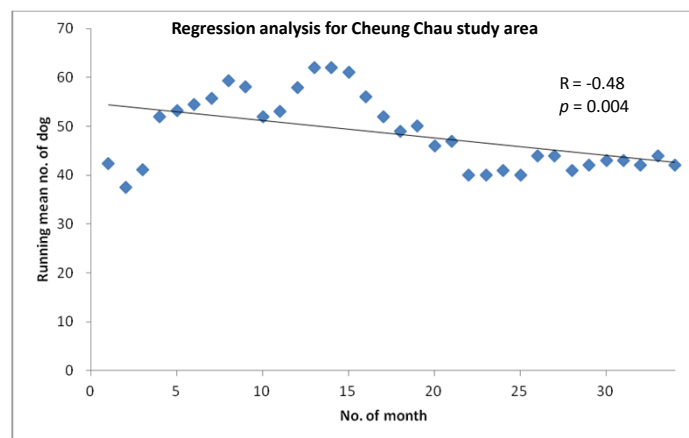
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Results and discussions (Cheung Chau trial site)

	Cheung Chau trial site	
Baseline no. (Jan – Mar 2015)	49	
Final no. (Nov-Dec 2017-Jan 2018)	42	• Target of 35 dogs in the trial site not achieved
% reduction (comparison between the baseline no. and the final no.)	14% ↓	• Target of 27.1% reduction in the trial site not achieved
Target no. (under 10% annual decrease set in protocol)	End of 1 st yr: 44 dogs (90%) End of 2 nd yr: 39 dogs (81%) End of 3 rd yr: 35 dogs (72.9%)	

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Results and discussions (Cheung Chau trial site)



Decrease trend in the trial site

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Results and discussions (Cheung Chau trial site)

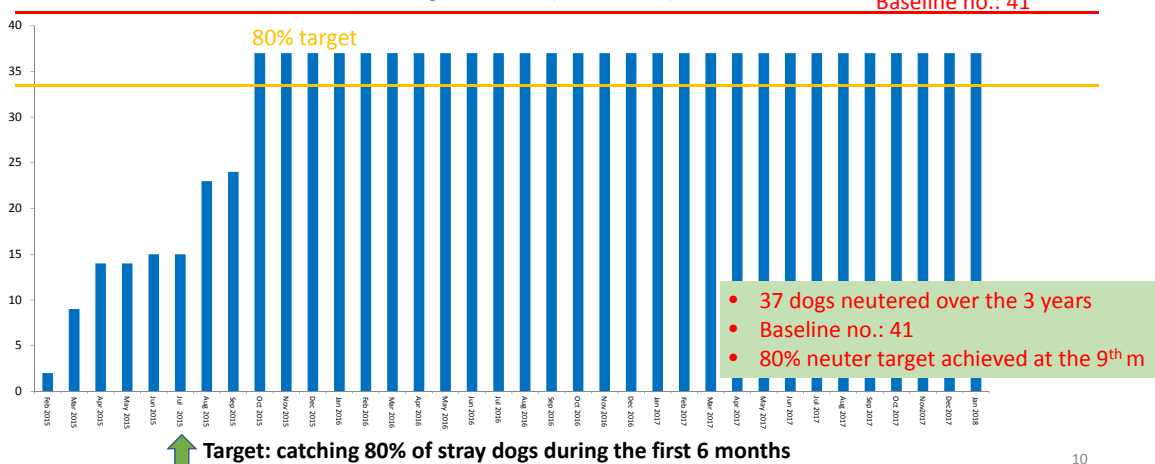
Causes affecting the decrease of stray dogs

- Low natural mortality, might relate to food provision and medical treatment
- Immigration and emigration of dogs (Cumulative no. of dogs in Cheung Chau study area: 113 dogs) → Non-neutered dogs might enter the trial site

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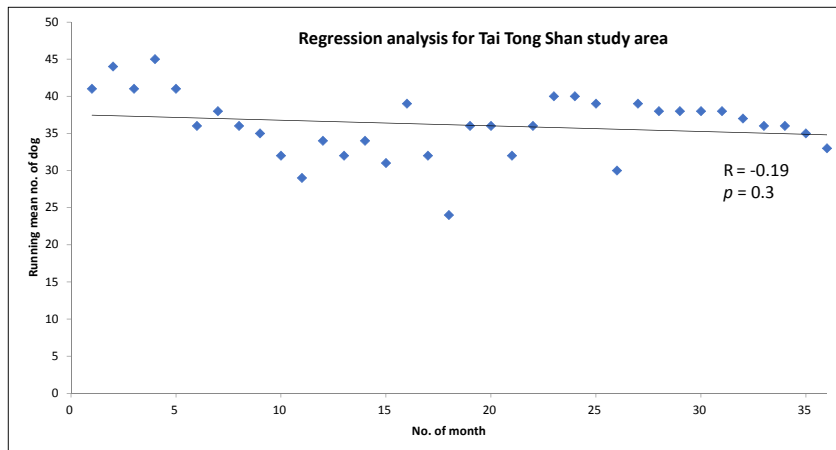
Results and discussions (Tai Tong Shan trial site)

TNR implementation in Tai Tong Shan trial site (information from SAA)
No. of dogs neutered (cumulative)



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Results and discussions (Tai Tong Shan trial site)



The p value for the trial site is not significant
i.e. no increasing or decreasing trends

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Results and discussions (Tai Tong Shan trial site)

	Tai Tong Shan study area	
Baseline no.	41	
Final no. (Nov-Dec 2017-Jan 2018)	30	• Target of 28 dogs in the trial site not achieved
% reduction (comparison between the baseline no. and the final no.)	26.8% ↓	• Target of 27.1% reduction in the trial site not achieved
Target no. (under 10% annual decrease set in protocol)	End of 1 st yr: 36 dogs (90%) End of 2 nd yr: 32 dogs (81%) End of 3 rd yr: 28 dogs (72.9%)	• Some TNR dogs were relocated to a dog shelter before the trial end → the reduction would be overestimated

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Results and discussions (Complain statistics)

Number of Complaints Received Annually		
	Cheung Chau	Tai Tong
Feb 2014 to Jan 2015 (i.e. before the commencement of the study)	19	14
Feb 2015 to Jan 2016	39	8
Feb 2016 to Jan 2017	27	1
Feb 2017 to Jan 2018	26	6

- No obvious correlation between TNR and complaint numbers at the trial sites was observed.
- But territory-wide complaint no. of stray dog nuisance has reduced by 30% over the past 3 years.

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Conclusions

- The 3 performance targets were not achieved in either site
 1. Neuter at least 80% in the first 6 months
 2. 10% annual decrease
 3. Complaints received matching / lower than the territory-wide average
- Decreasing trend of dog population no. was still observed in Cheung Chau study area.

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THE END