



# Dog Population Management – Veterinary Oversight

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We were known as **WSPA**  
(World Society for the  
Protection of Animals)



## DOGS IN COMMUNITIES



- In communities dogs provide benefits:- Companionship, Security; Herding; Specialized aid e.g. dogs for the blind, disease detection.
- Research evidences positive effects on human health & well-being
- On the opposite side free roaming dogs present problems:- Zoonotic diseases transmission, dog bites, traffic accidents, depredation. **In such instances these free roamers and community dogs may need management that allows harmonious living.**



# DOGS IN COMMUNITIES





## Managing Dogs & their Interaction with Communities

- Goal to have harmonious coexistence of dogs and the majority of humans they interact with
- Process:
  - Minimise threats
  - Maximise benefits



## African Priorities



- **Rabies threat**
- Services provided by dogs
- Threat/ fear of dog attacks
- Environmental pollution
- Depredation



## Developing Sustainable Solutions

- Prioritise & start with change processes that are locally desirable and affordable
- Understand that buy in & ownership by key stakeholders is essential for long term sustainability
- Aim to catalyse long term behaviour



## Key components of sustainably achieving Immediate Priority; 70% Herd Immunity

- Competent Authority need to have the desire; political and financial support of higher authorities; capacity & competency to deliver an effective vaccination campaign
- Dog owners need to understand why they must vaccinate their dogs and be willing and capable of presenting them for immunisation
- Dog owners must understand their role in contributing to the roaming dog population and its negative impacts on neighbours and rabies control, and take responsibility for



## Change in current paradigms

- Breaking the belief that mass culling controls rabies
- Accepting that rabies control should be a free public good
- Moving responsibility for dog management to dog owners





## DOG CULLS NOT THE ANSWER

- A general wide held misconception is that dog culling will reduce rabies by reducing the number of dogs
- Research show culls are expensive and ineffective
- It is just a stop gap measure but problem soon returns
- Presently the methods are inhumane and a lot of owned free roaming dogs get killed many of which may have been vaccinated



## Dog Culls Not the Answer

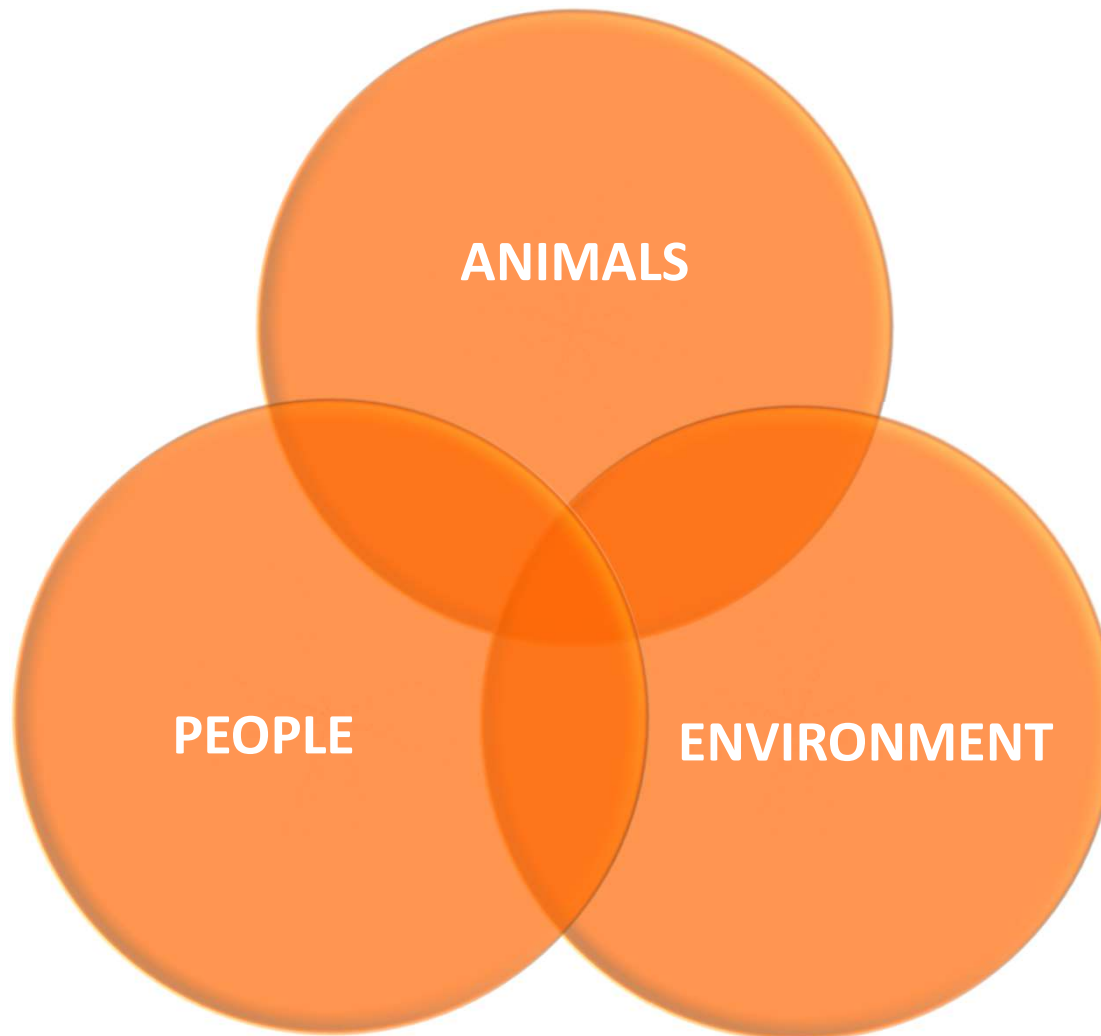
- Many owners and denizens protest on the culling methods.
- Owners get new pups and dogs, sometimes from a long distance away that are unvaccinated negating any efforts to control rabies in an area
- This lowers the 70% effective vacc coverage required, decreasing herd immunity
- As herd immunity decreases Zoonotic disease transmission probability increases



## Dog Culls Not Answer

- To reverse this cycle it is recommended that rabies elimination is undertaken through a full cycle of Dog Population Management
- As set out in ICAM guidelines (International Companion Animal Management Coalition guidelines)

# “ONE HEALTH” in DPM

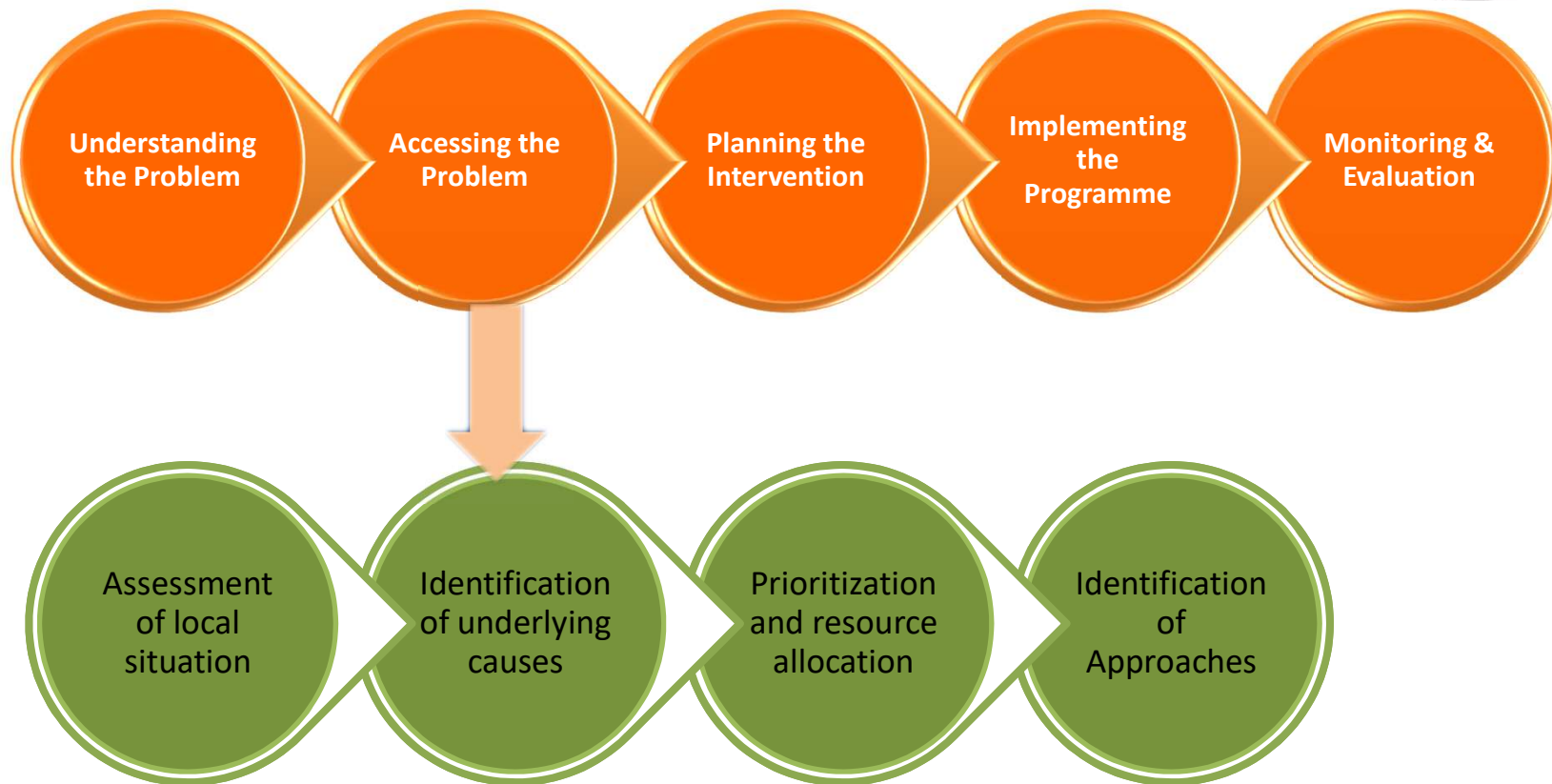


# Steps for Designing a 'One Health' Programme

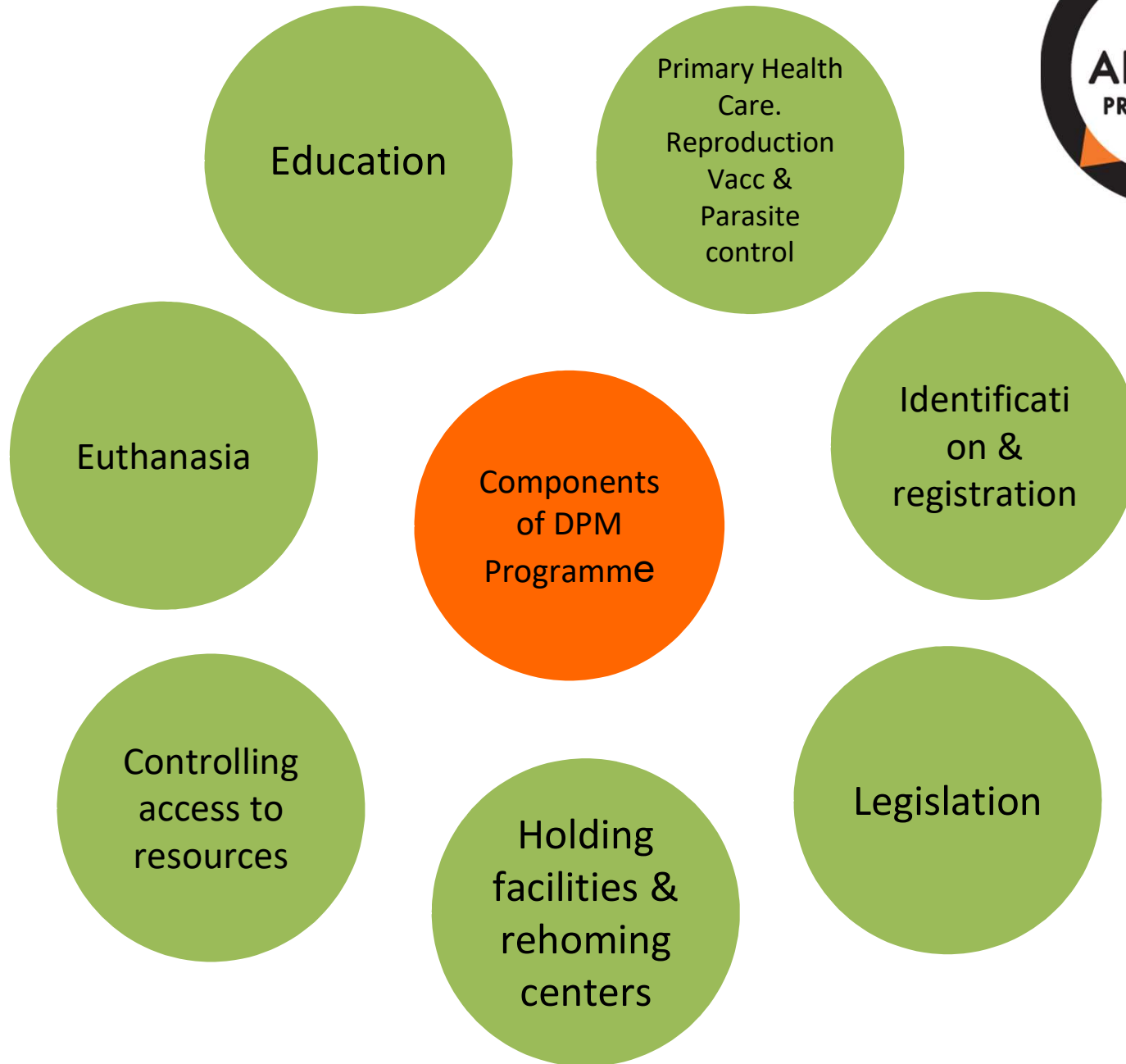


- Accommodate the varying concerns of local societies, communities and geographical regions.
- Tailor programmes to these specific locational requirements
- Take into consideration local dog population ecology & focus on addressing the root cause of the undesired effects caused by dogs
- As most challenges are a result of human mismanagement focus on providing solutions to rectify these

# Design Steps for 'One Health' Programme



# Components of an Effective DPM Programme





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# End Rabies Now

## INTERNATIONAL CONFERENCE ON THE GLOBAL ELIMINATION OF DOG-MEDIATED HUMAN RABIES: *“THE TIME IS NOW”*

- The Global Conference was convened in Geneva on 10 – 11 December 2015 in order to develop a new global guidance (referred to as a Framework) for eliminating dog-mediated human rabies.

## GLOBAL FRAMEWORK FOR THE ELIMINATION OF DOG-MEDIATED HUMAN RABIES

*Dog-mediated human rabies kills tens of thousands of people every year worldwide. Freedom from dog-mediated human rabies is a global public good and is feasible with currently available tools.*

In accordance with the consensus of the Global Conference (Geneva, 10-11 December 2015), this framework provides a coordinated approach and vision for the global elimination of dog-mediated human rabies. It is intended to harmonize actions and provide adaptable, achievable guidance for country and regional strategies.

### The five pillars of rabies elimination (STOP-R)

#### 1 SOCIO-CULTURAL

Rabies control involves a wide range of stakeholders including the general public. The socio-cultural context influences rabies perceptions and dog-keeping practices of at-risk populations. Understanding the context guides approaches to motivate behavioural change and plan feasible delivery of services.

**Includes activities for:**

- **Awareness:** build awareness of dog-mediated rabies as a preventable global public health problem including through participation in initiatives such as World Rabies Day and the EndRabiesNow campaign
- **Responsible dog ownership:** promote responsible dog ownership and dog population management practices, including dog vaccination, in accordance with OIE standards
- **Bite prevention and treatment:** develop and implement education programmes on bite prevention and first aid for both children and adults
- **Post-exposure prophylaxis:** increase awareness and understanding of post-exposure prophylaxis (PEP) imperatives and options including intradermal administration
- **Community engagement:** encourage community involvement and engagement in activities to eliminate dog-mediated rabies

#### 2 TECHNICAL

Effective animal health and public health systems are required to eliminate dog-mediated human rabies. These systems must be strengthened and resourced appropriately, and gaps identified and filled.

**Includes activities for:**

- **Vaccination:** ensure safe, efficacious and accessible dog and human vaccines and immunoglobulins, and promote and implement mass dog vaccination as the most cost-effective intervention to achieve dog-mediated human rabies elimination
- **Logistics:** collect data on needs forecasts to inform the vaccine procurement system and to create and sustain the logistics and infrastructure required for effective delivery and implementation of mass dog vaccination programmes and PEP administration
- **Diagnostics:** ensure capacity and capability for rapid and accurate rabies diagnosis through accessible, well equipped laboratories and trained personnel
- **Surveillance:** support improved surveillance, sampling, reporting, and data-sharing
- **Technical support:** provide guidance and technical support for the development and tailoring of regional and national plans, including promoting the use of existing tools
- **Proof of concept:** support proof-of-concept programmes, and then scale up through leveraging of success

#### 3 ORGANIZATION

The One Health approach of close collaboration is applied. Leadership, partnership and coordination for rabies elimination activities arise from the human health and animal health sectors and other stakeholders.

**Includes activities for:**

- **One Health:** promote the One Health approach and intersectoral coordination through national and regional networks
- **Good governance:** establish good governance, including clear roles, chain of command, measurable outcomes and timelines
- **Harmonization:** align work plans and activities with national and regional priorities and approaches fostering synergies among sectors
- **Coordination:** coordinate and combine human resources, logistics and infrastructure of other programmes and initiatives, as appropriate and feasible
- **Indicators and performance:** identify targets and their indicators to support performance measurement, including surveillance and validation data, to identify areas requiring attention or extra support
- **Monitoring and evaluation:** support monitoring and evaluation of national plans to ensure timely and cost effective delivery

#### 4 POLITICAL

Success depends on political will and support for elimination of dog-mediated human rabies. Political will results from recognition of rabies elimination as a national, regional and global public good.

**Includes activities for:**

- **Political support:** political support is essential and most relevant during and following country instability (political upheaval, natural disasters, etc.)
- **International support:** encourage countries to request a resolution on dog-mediated human rabies elimination through the World Health Assembly (WHO) and the General Assembly of Delegates (OIE)
- **Legal frameworks:** establish and enforce appropriate legal frameworks for rabies notification and elimination
- **Demonstrating impacts:** demonstrate the compelling case for mass dog vaccination programmes and their impact on protecting and saving human lives
- **Regional engagement:** support active national and regional engagement and cooperation to commit to a rabies elimination programme and promote the exchange of lessons learnt and experiences to leverage resources and engagement

#### 5 RESOURCES

Rabies elimination activities frequently span several years and therefore require sustained, long-term support.

**Includes activities for:**

- **Case for investment:** promote the case for investment in dog-mediated human rabies elimination to persuade countries, policy makers and donors of the feasibility, merit and value of investing in rabies elimination strategies
- **Business plans:** prepare business plans based on the Global Framework for Dog-mediated Human Rabies Elimination
- **Investment:** encourage different forms of investment and partnerships (private and public investment) to leverage resources and engagement

#### CRITICAL SUCCESS FACTORS

- Long-term political and social commitment
- Community engagement
- Sustainable vaccination of 70% of the at-risk dog population
- Proof of concept: start small, scale up
- Sufficient resources, logistics and infrastructure
- Promote vaccine banks and other strategies for acquisition of rabies immunoglobulins to ensure sufficient supply of quality-assured rabies vaccines and human immunoglobulin
- Reach remote, rural and at-risk populations
- Conduct performance measurement at all levels
- Maintain trained and motivated implementation personnel

**STRATEGIC VISION: zero human deaths from dog-mediated rabies by 2030 in participating countries**



# Outcomes

## The Framework

The draft framework is now made of up of five main pillars for the elimination of rabies which are as follows:

### ▣▣▣▣ [Pillar 1: Socio-cultural](#)

This includes shaping rabies perceptions and **dog-keeping practices of target populations**. *Understanding the context guides approaches to motivate changes in behavior and plan feasible delivery of services.*

### ▣▣▣▣ [Pillar 2: Technical](#)

This includes **good animal health** and public health systems to effectively eliminate dog-mediated human rabies.



# Outcomes

## ▣▣▣ [Pillar 3: Organization](#)

This includes a One Health approach of close collaboration: leadership, engagement and coordination for rabies elimination activities come from the human health and animal health sectors and other stakeholders.

## ▣▣▣ [Pillar 4: Political](#)

This includes identify that **success is dependent on national and regional political will** and support for elimination of dog-mediated human rabies.

## ▣▣▣ [Pillar 5: Resources](#)

This includes investment and recognition that rabies elimination activities frequently span several years and therefore requires sustained, long-term support.

# Pillar 1: Socio-cultural



Key within this pillar is promotion of Responsible Dog Ownership and dog management practices which are the Civic responsibility all dog owners.

- Ensure they do not pose health risk to people
- Ensure they do not roam outside of their compound
- Ensure that they do not threaten law abiding citizens
- Ensure they do not cause environmental pollution
- Ensure prevention of excessive reproduction

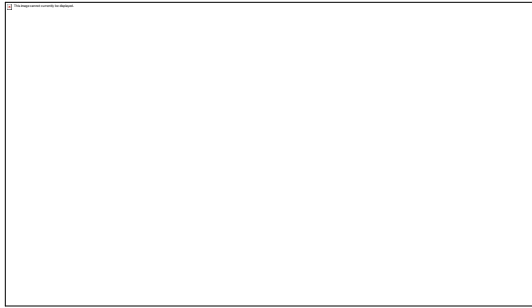


# Pillar 1: Socio-cultural

## Means of undertaking this pillar:

### ••• **Education – Changing attitudes**

- Education people is key to the success of humane dog management
- Problem with dogs is usually influenced by human behavior
- Education is a means to improve knowledge, influence & perception and change negative attitudes towards dogs
- Successful programmes include guidance on safe responsible interaction with dogs
- Appropriate education on dog behavior and welfare needs can result in improved social economic behaviors



# Pillar 1: Socio-cultural

## Area of Education:

- ⌘ Educating Dog owners on welfare needs of dog and how to provide for them
  - ⌘ Community Education through public awareness campaigns is vital to get the community to understand and ensure their support which is vital to the programmes sustainability.
  - ⌘ Education of children through school education programmes.
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- Please note that across regions there are very fluid, cultural, social and economic dynamics that determine peoples perceptions of dogs and how they are normally handled. These norms are the baseline and must be taken into account in designing RDO improvement programmes
  - Therefore necessary to undertake KAPS and Ecological studies to better understand the local status and create relevant education programmes



## Pillar 2: Technical

### Means of undertaking this pillar:

#### ▣ Primary Health Care

- Reproduction Control – this can be achieved through permanent or temporary measures
  - ✓ Though mass sterilization may reduce dog numbers, local free roaming populations is regulated by community or owner behavior.
  - ✓ It is important to have targeted reproductive control programmes and for this to be successful you have to have an accurate understanding of cultural human/ dog dynamics and dog ecology in the area.
- Vaccination & Parasite control programmes – Private or public
  - ✓ Tend to be mostly driven by fear of zoonotic spread
  - ✓ Can be provided together with neutering, identification, registration and RDO education to owners.





## Pillar 2: Technical

### ❖ Holding Facilities and Rehoming centers

- Have a high chance of being misused and having severe welfare implications to animals
- **They only treat the symptoms of abandonment & not the causes.**
- Strict regulations need to be placed on the running of these centers.
- Their main use should be for reuniting owners with their lost dogs
- Treatment vaccination, neutering and rehoming/ adaption of true or undeclared strays
- Training education of old and new dog owners on RDO

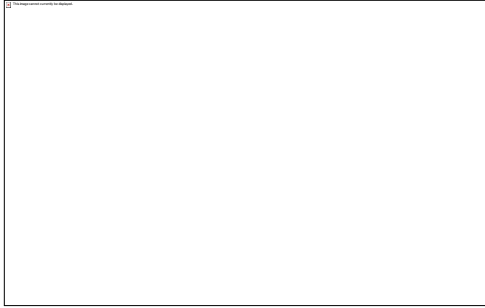


## Pillar 4: Political

### Means of delivering this pillar:

#### • Legislation – developing & enforcing

- RDO and humane dog management programmes need both local, national and regional legislation.
- Regional Legislation: Coordination and cohesion of dog management programmes across countries within a region.
- National Legislation : Statutory standards for a country
- Local legislation: built on base national standards but allows for local contextual variables.
- Legislation in itself is of no good if not supported by education and enforcement.
- *If enforcement relaxes the problem will resurge due to human nature to take advantage and ignore (global phenomenon)*



## Pillar 4: Political

### Means of delivering this pillar:

- **Political will – developing political buy-in of leadership**
- Convince competent authorities (veterinarians) of the value and importance of investing best practice rabies elimination
- Demonstrate economic rationale
- Highlight socio-political advantage



## Pillar 4: Political

⌘ Broad areas of legislation are:

- Legislation for dog ownership
- Legislation for persons handling dogs
- Legislation for institutions handling dogs
- Legislation for governments responsibilities on things associated with dogs.
- Legislation on Animal Welfare
- Legislation for veterinarians
- Legislation on biological waste disposal and preventing access to dogs

# Pillar 4: Political



## ▣ Controlling Access to Dogs

- Dogs roam where they can get access to food, water and shelter.
- Access to garbage or handouts (by restaurants and kind citizens in market or residential places) enhances and encourages roaming.
- This has zoonotic implication for both humans & local dog population.
- Also vast health related issues to the dogs whether free roaming or true stray.
- For sustainable and successful programme for humane dog management programmes access of these food resources need to be limited/ controlled.
- This can be facilitated by political support/strengthening/ legislation/ regulation and enforcement of regular and proper garbage removal & animal secured disposal sites, provision of animal safe bins, education of public on littering and RDO, proper public health safe waste disposal and animal proofing at abattoirs/ markets and unnecessary kind hearted feeding of roaming dogs.

# Direction on Way Forward for Improving RDO to Assist in Eliminating Rabies



- Appreciative that the Africa Region is starting from a relatively low level of formal dog management, it is important to design the recommendations for improvement in management practices that build progressively from the status quo.
- Understanding that cultivating political buy-in and the resultant commitment of statutory funding is key to driving the campaign, developing advocacy tools to secure this by empirically demonstrating the benefit of improved RDO to elimination of rabies will be critical.
- Cognisant that it is critical to cultivate a Social Movement through an education and awareness campaign, which delivers behaviour change in dog owners leading to improved RDO.

Thank you



# References



**Haesler, B., Gregory. N. Bennani. H., et al (2012).** *Evaluation of rabies control in the province of Bali, Indonesia: A comprehensive framework to evaluate rabies control strategies taking into account economics, animal welfare, epidemiology, social acceptability and ethics.* London, UK: Royal Veterinary Collage

**Hiby. E. (2013) Dog Population Management IN: CNL MacPherson et al (Eds)** 'Dogs, zoonosis and public health' CABI publishing. Pp 177-204

**International Companion Animal Management Coalition (2008) 'Humane dog population guidance'**, [http://www.icam-coalition.org/downloads/Humane\\_Dog\\_Population\\_Management\\_Guidance\\_English.pdf](http://www.icam-coalition.org/downloads/Humane_Dog_Population_Management_Guidance_English.pdf). embargoed 21/9/2016

**Morters. M et al (2014).** *The demography of free roaming dog populations and applications to disease and population control.* Journal of Applied Ecology. 51pp. 1096-1106

**RSPCA. 'Guidelines for the design and management on animal shelters.'**  
[http://caninerabiesblueprint.org/IMG/pdf/Link77\\_AnimalShelters\\_RSPCA.pdf](http://caninerabiesblueprint.org/IMG/pdf/Link77_AnimalShelters_RSPCA.pdf) . Embargoed 21/9/2016

**World Animal Protection (2013).** *Controlling rabies. One humane solution, three reasons why.*  
[http://www.worldanimalprotection.org/sites/default/files/int\\_files/controlling\\_rabies-one\\_humane\\_solution.pdf](http://www.worldanimalprotection.org/sites/default/files/int_files/controlling_rabies-one_humane_solution.pdf) (embargoed on 14th August 2015)

**World Animal Protection (2014)** 'Education for sustainable development and animal welfare'

**World Animal Protection (2015)** 'Education and messaging' <http://www.animalmosaic.org>

**World Animal Protection (2015).** *Humane dog management.* Better lives for Dogs & communities