Keeping FMD, anthrax and rabies at bay

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Improving veterinary service delivery in a decentralised Indonesia

ACIAR / NSW DPI scoping 2007, project 2008-12
Decentralised Indonesia

A big country
250 mill people
Many languages and religions
17,000 islands

Governance is complex

- 1 central government
- 33 provinces
- 450 regencies (districts)
- All have parliaments
- 5-yearly elections
  - e.g. Bali has 11 governments, each with its own political and budget cycle.
Managing emergency animal disease outbreaks

- **Technical response**
  - e.g. AUSTRALIAN VETERINARY EMERGENCY PLAN AUSVETPLAN
  - Disease Strategy Foot-and-mouth disease
    - Version 3.3, 2012

- **Operational response**
  - Incident control system (ICS)

- **Trained key staff**

- **Legal and financial prior arrangements**
  - cost-sharing
Foot and Mouth Disease preparedness in Indonesia

FMD is highly infectious, causes massive losses in cattle, sheep and pigs.

FMD freedom underpins market access for Australia’s $19 Bill. livestock industries.

Indonesia eradicated FMD in the 1980s with Australian help.

Menaced by possible re-introduction from other Asian countries.

Development of a comprehensive Indovetplan is underway.

Study tours and leadership training for government vets build capability.
Anthrax in Indonesia’s Eastern Islands

Anthrax outbreaks cause livestock and human deaths. Spores stay in the ground for >100 years. Annual vaccination of livestock is needed.

7 vets did Masters on risk factors and control strategies for anthrax.

Lombok  Sumbawa

Flores  Sumba  West Timor

3 Indonesian vets learnt safer anthrax diagnostic methods at NSW DPI’s Camden veterinary lab, becoming trainers back home to phase out dangerous culture.
Rabies – a fatal disease and a horrible death

55,000+ human deaths per year, mainly due to dog bites

Breaking the transmission cycle in dogs is needed to prevent human rabies
Rabies is still spreading in Indonesia – now only 300km north of Darwin
Rabies spread in Bali 2008/9
Slide: Dr AAG Putra
Rabies in Bali / Flores – Australian inputs

Planned project work in Flores, + unprogrammed response to Bali incursion in late November 2008

Emergency $100,000 from AusAID via ACIAR in Dec 2008
– diagnostic capability, emergency response system (ICS) and surveillance training

Further AusAID $750,000 in October 2009
$500,000 via WHO for vaccine, syringes, needles, collars
$250,000 via ACIAR project for surveillance, info. mgmt, community awareness and extra research

Research - 5 local Masters, 2PhDs, 1 USYD Masters on Bali and Flores dog ecology studies, local diagnostic tests, epidemiology of rabies in Bali, effectiveness of oral vs injectible vaccines in local dogs and Rabies risk assessment for Lombok and Sumbawa

Workshops – numerous in Bali, Flores, Jakarta, Bogor, Lombok
Tackling rabies in Bali

Phase 2 – mass dog vaccination rounds

1. Nov 2010 – Apr 2011
220,000 dogs – 71% pop’n

2. May – Sept 2011
230,000 dogs – 76% pop’n


4. 2013

Result - rabies incidence in Bali has plummeted – but not yet gone!

Costs to date

>142 human deaths
>200,000 humans bitten
>>$25mill
Anthrax endemic village, Flores
Improving veterinary service delivery in a decentralised Indonesia

ACIAR / NSW DPI scoping 2007, project 2008-12

- Anthrax diagnostic training – Crawford Fund / NSW DPI 2011
- Brucellosis in East and West Timor – ACIAR / USYD 2012-3
- Rabies risk assessment in Eastern Indonesia, Timor Leste, PNG and Northern Australia – DAFF / ACIAR / USYD 2012-4
- Indonesian veterinary leadership training – DAFF / ALAF / USYD 2012-14 +
- Veterinary student exchanges – USYD, UGM (Yogyakarta) 2014+

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