

Keeping FMD, anthrax and rabies at bay

**Helen Scott-Orr, NSW DPI / USYD, Project
Leader**

**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

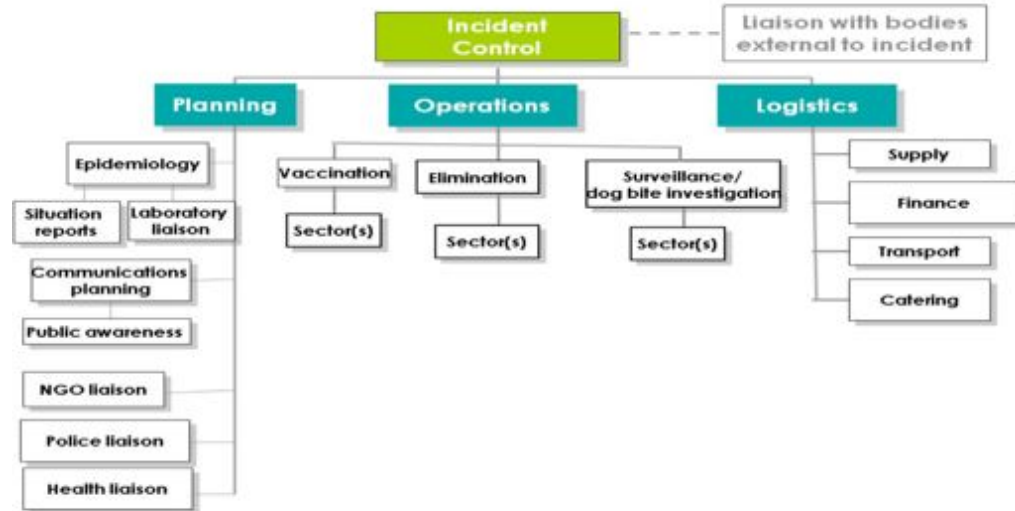
- **Trained key staff**



- **Legal and financial prior arrangements**
 - cost-sharing

- **Operational response**

Incident control system (ICS)



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.

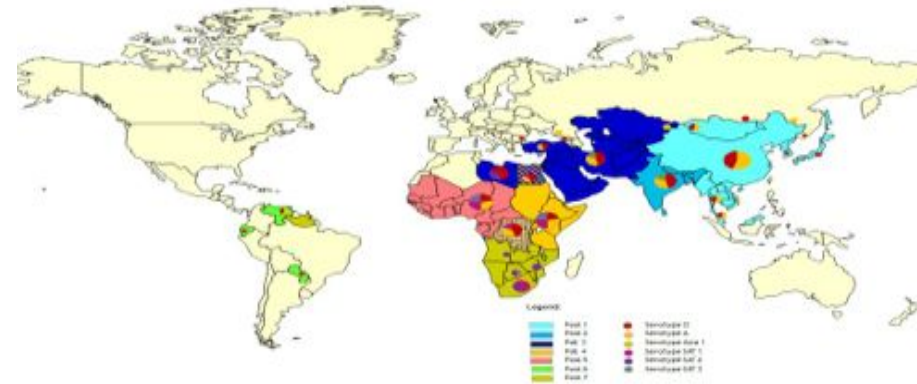
Menaced by possible re-introduction from other Asian countries.

Development of a comprehensive Indovetplan is underway.

Study tours and leadership training for government vets build capability.



FMD virus pools distribution, 2010-13



Simulation exercises build local awareness



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.

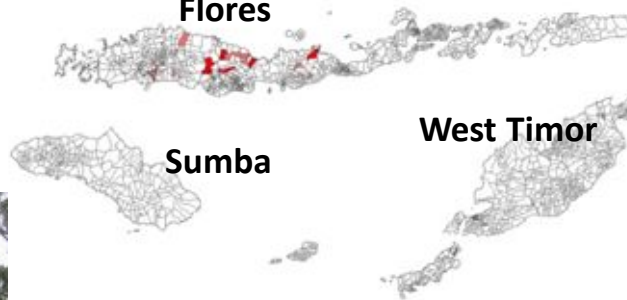
7 vets did Masters on risk factors and control strategies for anthrax.

Lombok Sumbawa

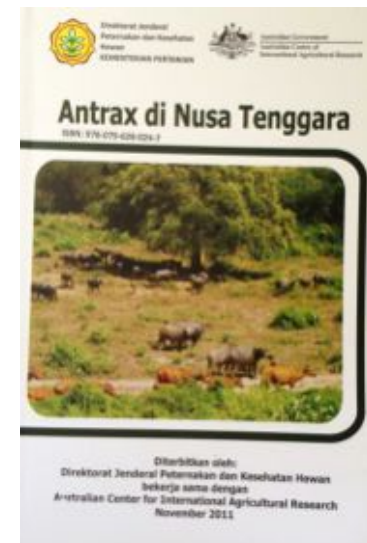
Flores

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.



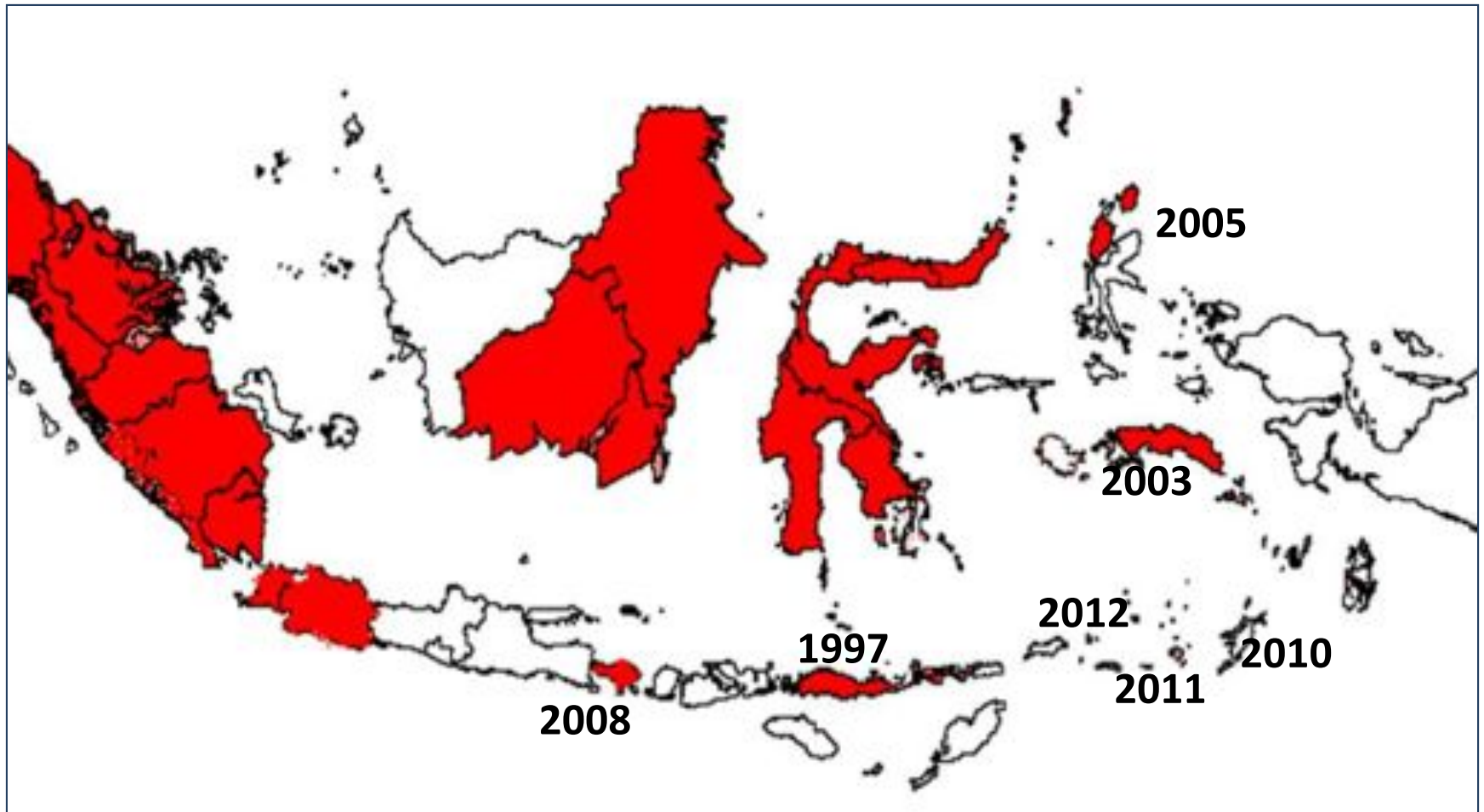
Rabies – a fatal disease and a horrible death

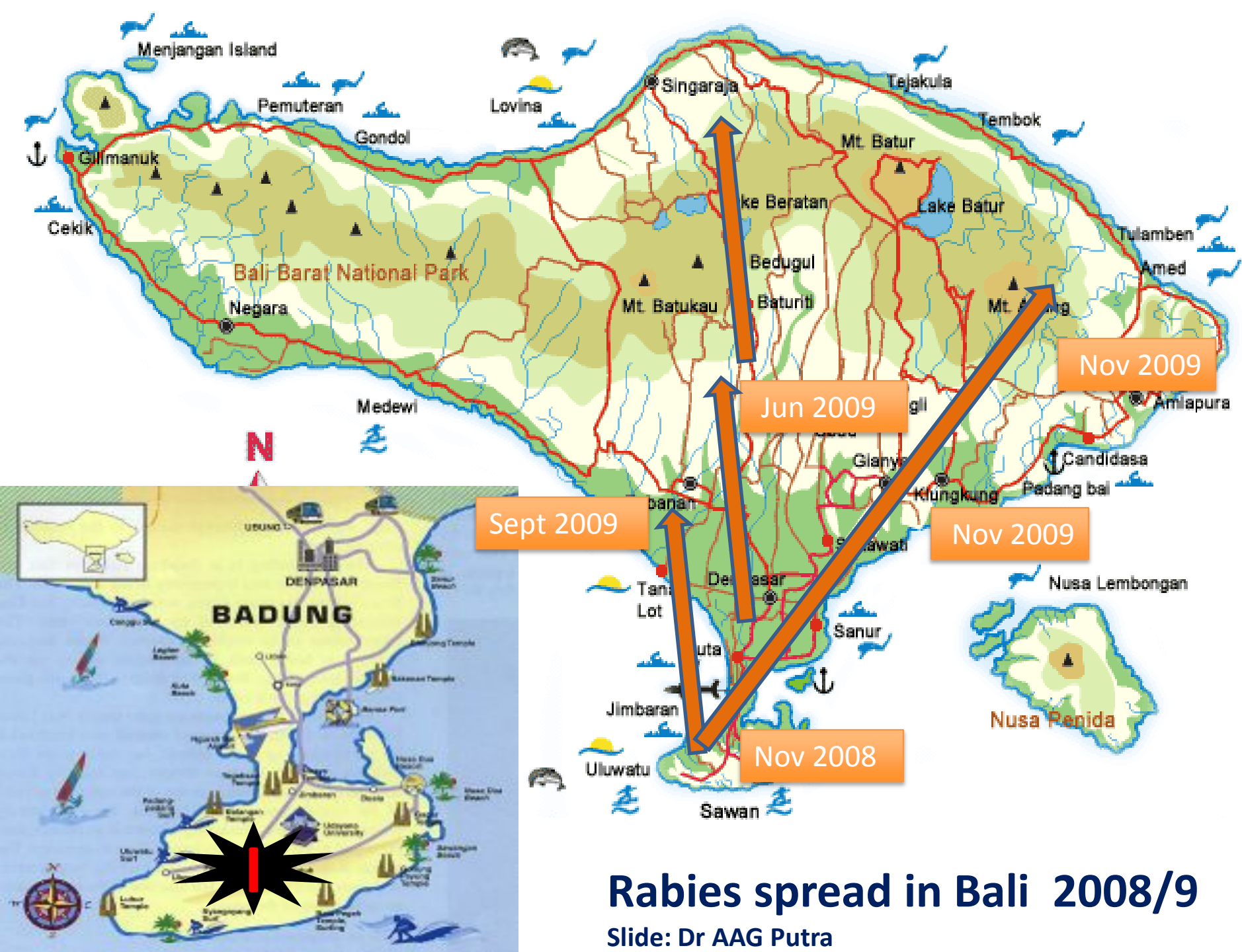
55,000+ human deaths
per year, mainly due to
dog bites

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, 2 PhDs, 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

3. June – Oct 2012

4. 2013

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

Costs to date

>142 human deaths

>200,000 humans bitten

>>\$25mill



Veterinary postgraduate students at UGM Yogyakarta and IPB Bogor, 2009



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+?

Acknowledgements

- Indonesia's Ministries of Agriculture and Health, provincial and district Livestock and Health Services
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- BAWA and WSPA, FAO and WHO for Bali rabies control inputs
- DAFF, CSIRO and others for follow-up project support

Thank you - Terima kasih

