



INTENSIFIED & INTEGRATED MALARIA CONTROL TOWARDS MALARIA ELIMINATION IN INDONESIA

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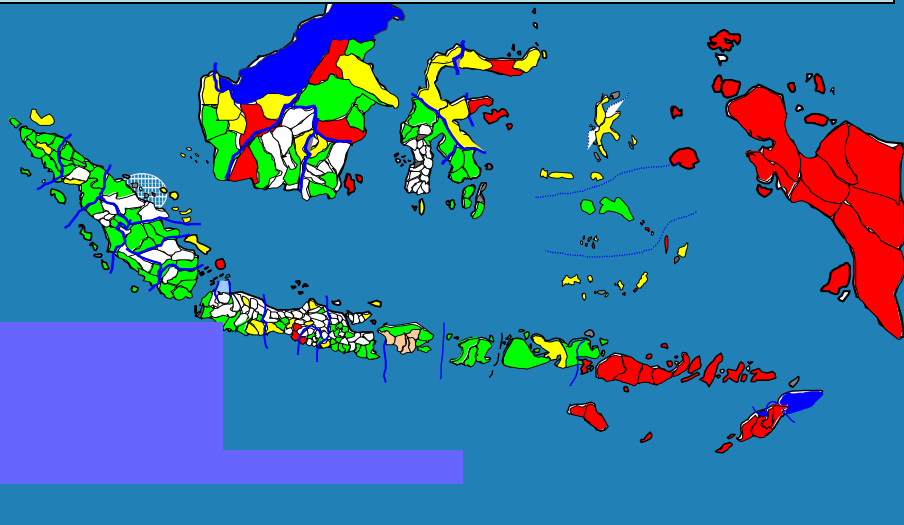
**ACT Malaria Executive Board and Partners Meeting
Luang Prabang, Lao PDR March 15 – 17th, 2010**



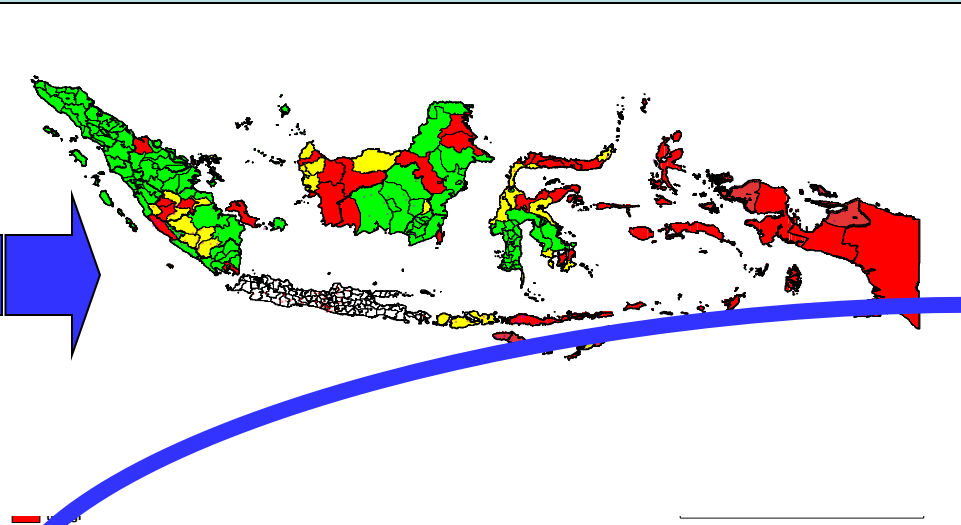
- 220 million people
- 1.9 million square km
- 33 provinces
- 471 districts
- 17,000 islands (transportation includes flight, road, boat)
- cultural diversity
- since 2003 shifting to decentralized system

Image © 2007 NASA
Image © 2007 TerraMetrics
© 2007 TerraMetrics

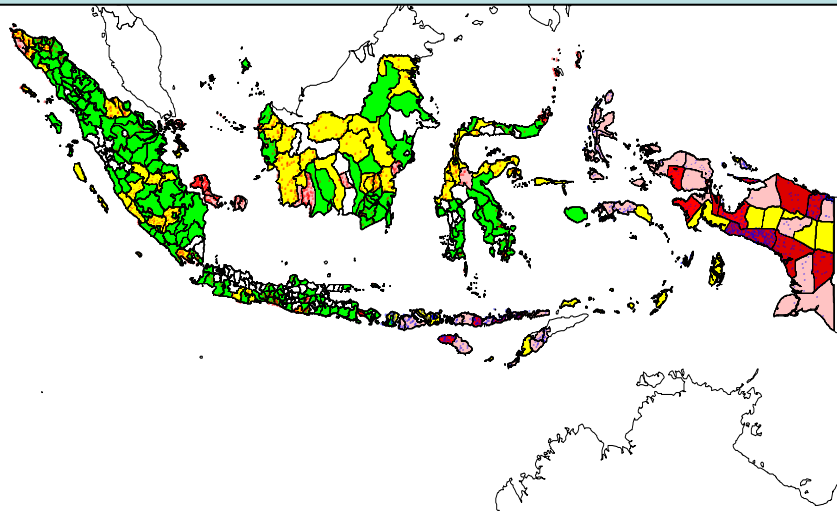
MALARIA MAP 2003



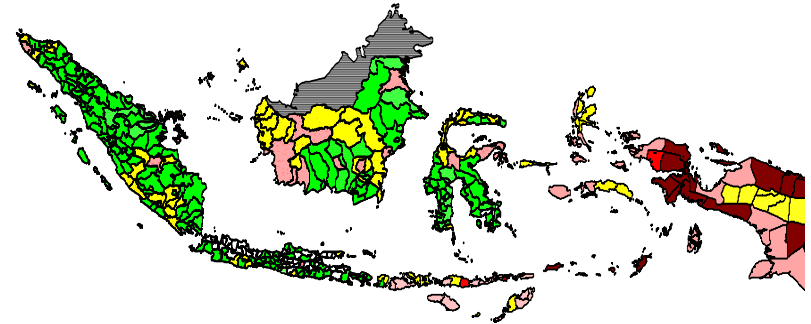
MALARIA MAP 2005



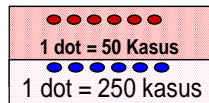
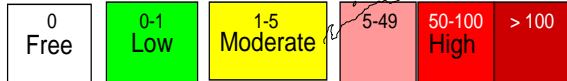
MALARIA MAP 2007



MALARIA MAP 2008

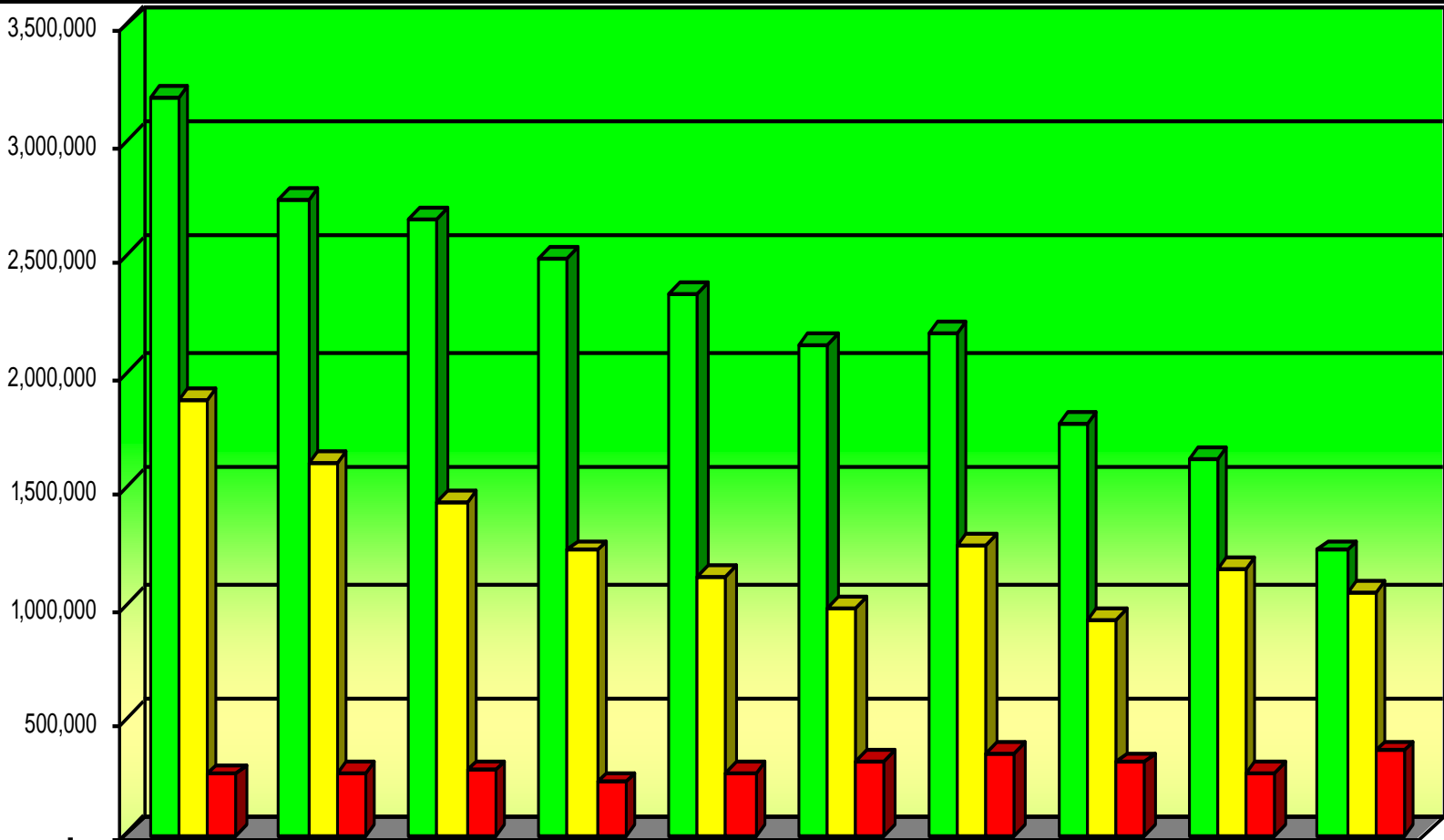


API
o/oo





MALARIA CASES 2000-2009

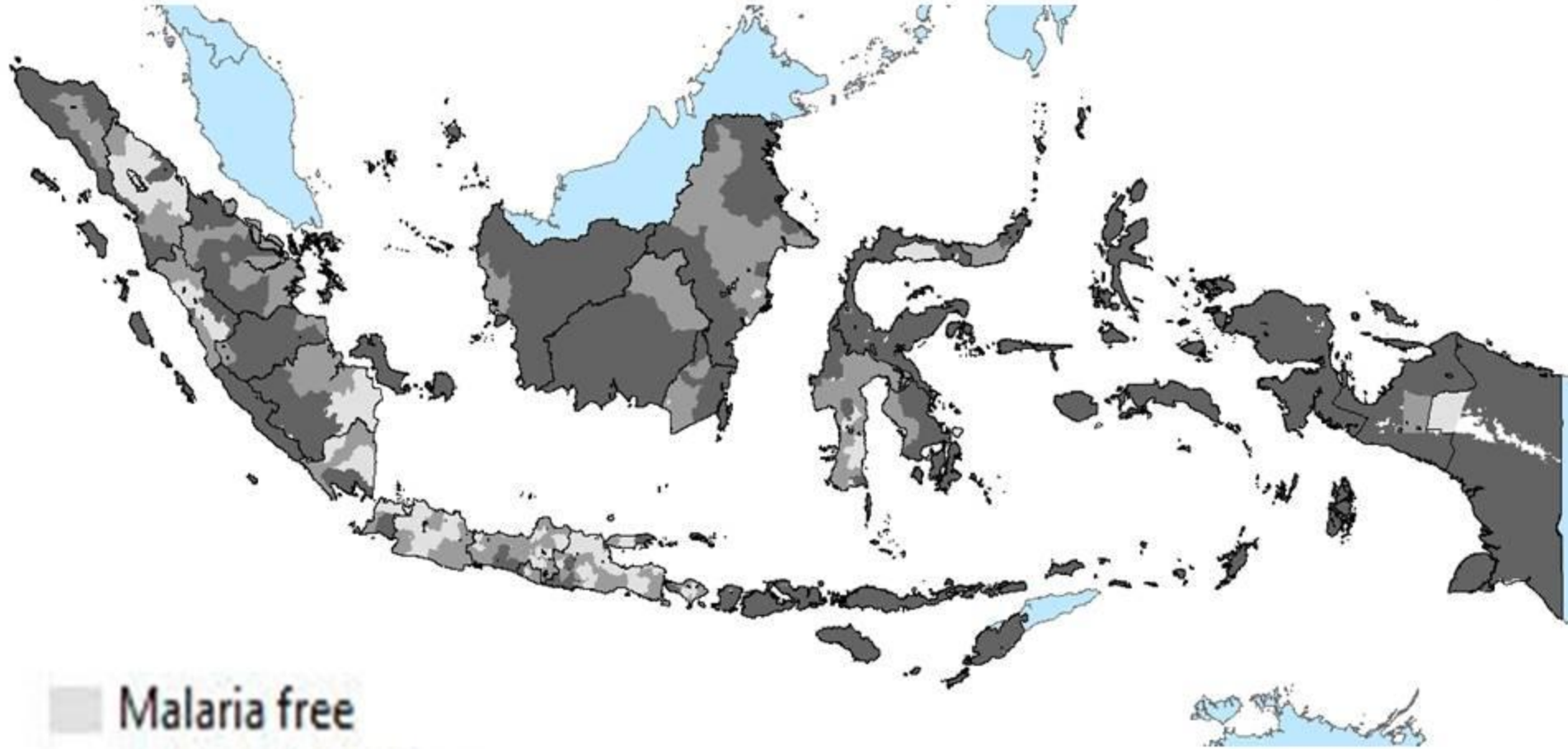


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
■ Clinical	3,178,212	2,737,927	2,660,674	2,482,906	2,335,585	2,113,265	2,167,028	1,774,845	1,624,930	1,223,830
■ BSE	1,880,418	1,604,573	1,440,302	1,224,232	1,109,801	982,828	1,246,324	930,029	1,145,087	1,047,917
■ Pos	256,993	267,592	273,793	223,074	268,852	315,394	347,597	311,789	266,277	359,145



Pf MALARIA RISK MAP

(based on Distribution of Annual Parasite Incidence 2006 – 2008)



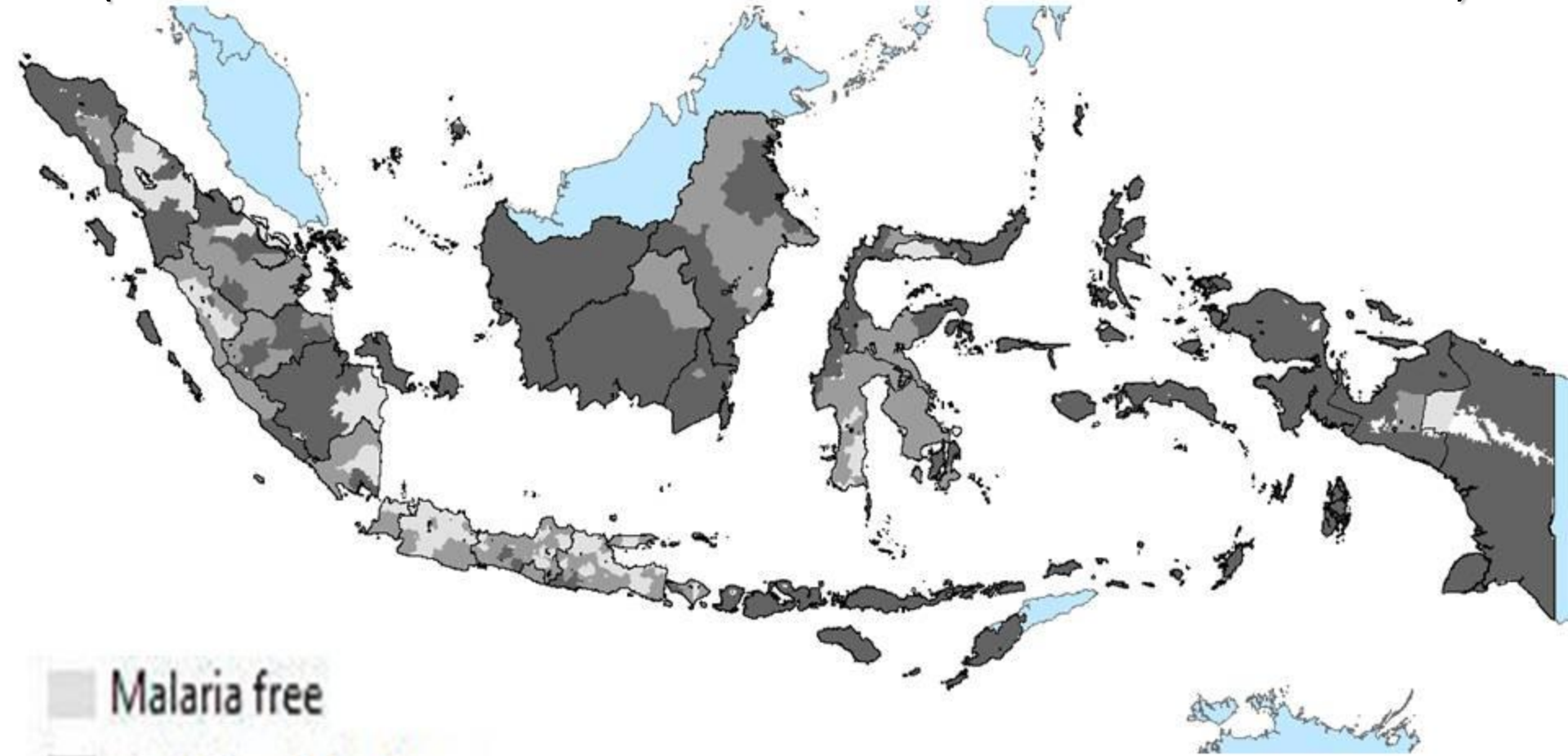
- Malaria free
- PfAPI < 0.1 o/oo (unstable Pf transmission)
- PfAPI ≥ 0.1 o/oo (stable Pf transmission)

**Source : Malaria Atlas Project
for Indonesia, 2010.**



Pv MALARIA RISK MAP

(based on Distribution of Annual Parasite Incidence 2006 – 2008)

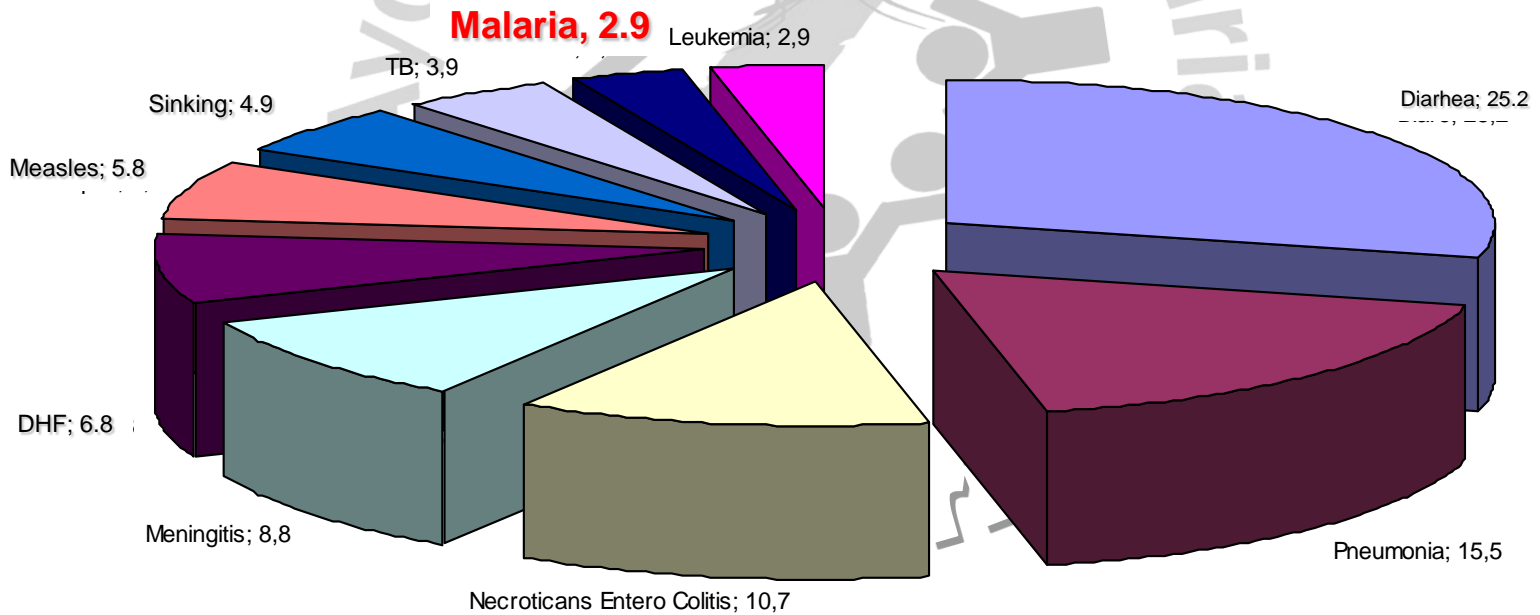


- Malaria free
- PvAPI < 0.1 o/oo (unstable Pv transmission)
- PvAPI ≥ 0.1 o/oo (stable Pv transmission)

**Source : Malaria Atlas Project
for Indonesia, 2010.**

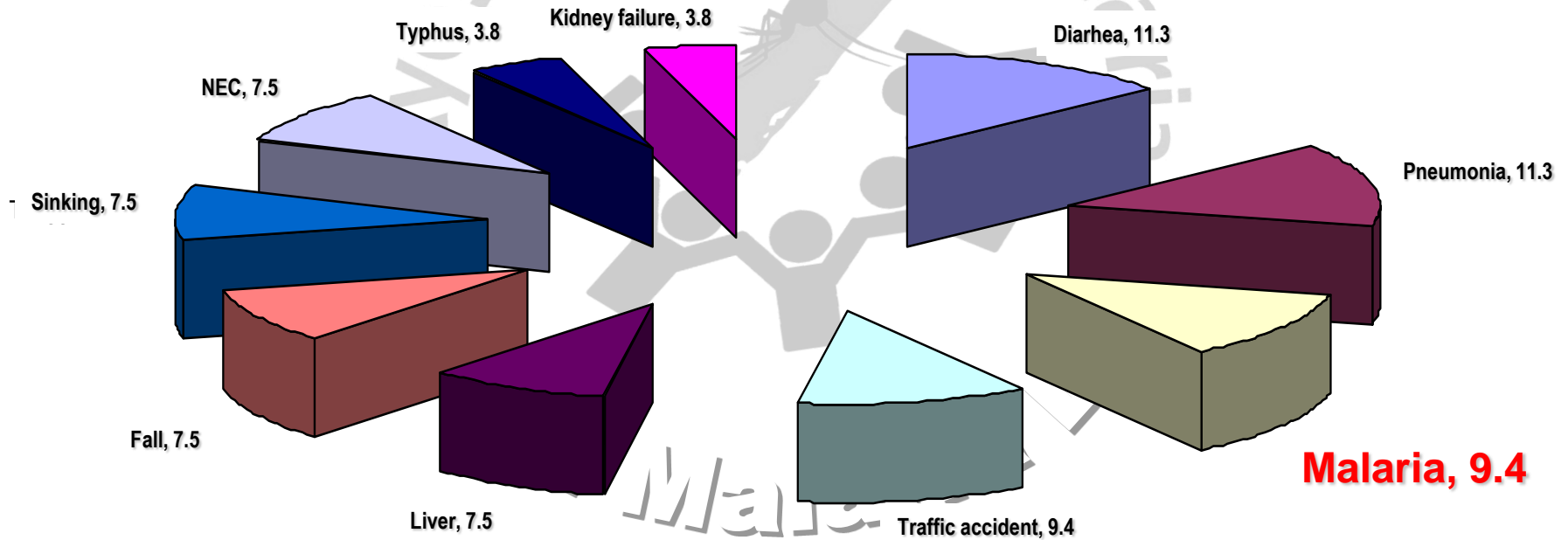


MORTALITY RATE IN AGES 1 – 5 YEARS OLD IN VILLAGES (HEALTH BASIC SURVEY 2007)

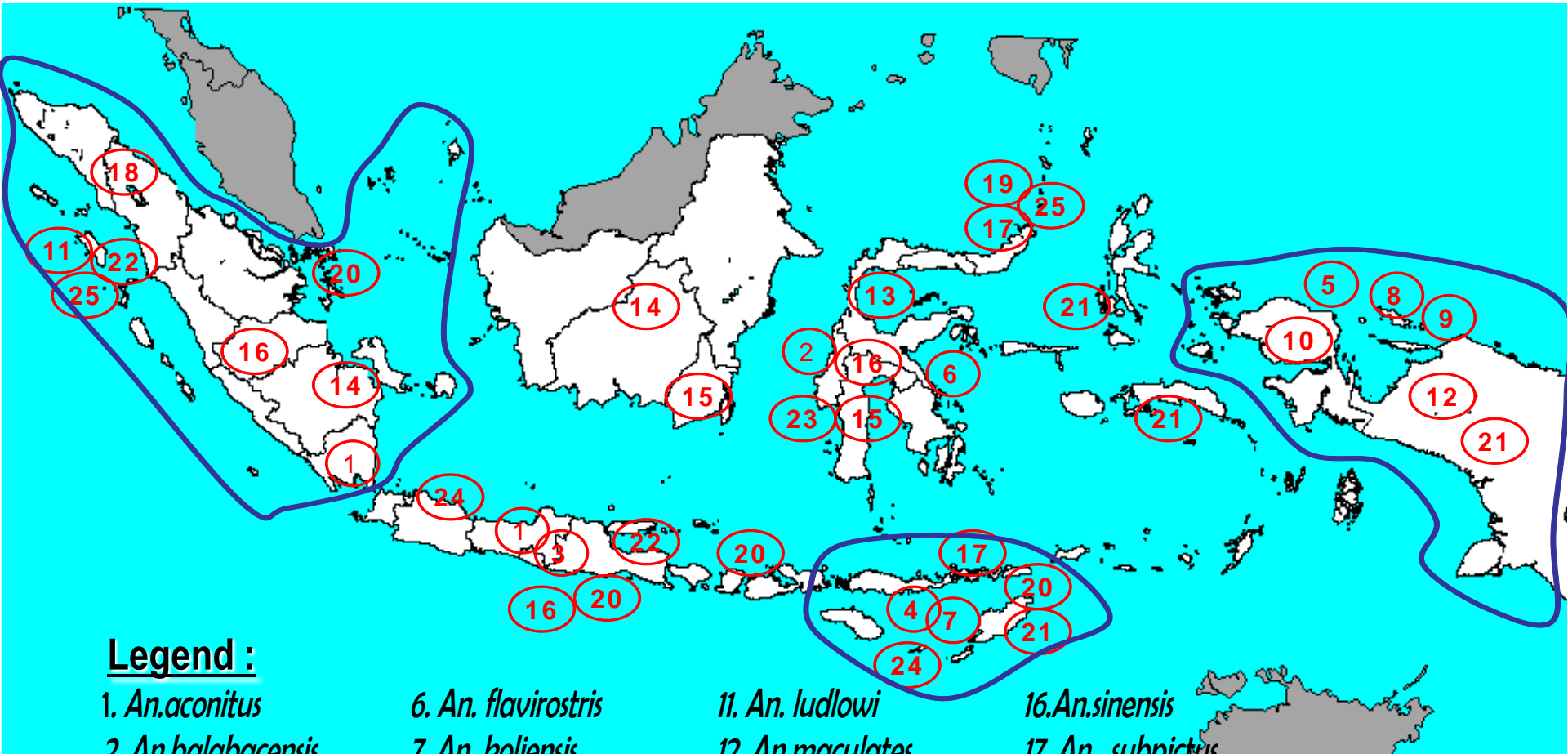




MORTALITY RATE IN AGES 5 – 14 YEARS OLD IN VILLAGES (HEALTH BASIC SURVEY 2007)



VECTOR MALARIA IN INDONESIA



Legend :

- | | | | |
|----------------------------|----------------------------|----------------------------|--------------------------|
| 1. <i>An. aconitus</i> | 6. <i>An. flavirostris</i> | 11. <i>An. ludlowi</i> | 16. <i>An. sinensis</i> |
| 2. <i>An. balabacensis</i> | 7. <i>An. koliensis</i> | 12. <i>An. maculatus</i> | 17. <i>An. subpictus</i> |
| 3. <i>An. bancrofti</i> | 8. <i>An. letifer</i> | 13. <i>An. minimus</i> | 18. <i>An. sundaicus</i> |
| 4. <i>An. barbirostris</i> | 9. <i>An. leucosphyrus</i> | 14. <i>An. nigerrimus</i> | 19. <i>An. vagus</i> |
| 5. <i>An. farauti</i> | 10. <i>An. karwari</i> | 15. <i>An. punctulatus</i> | 20. <i>An. umbrosus</i> |
| 21. <i>An. tesellatus</i> | 22. <i>An. parangensis</i> | 23. <i>An. kochi</i> | 24. <i>An. ludlowi</i> |
| 25. <i>An. annularis</i> | | | |



OBJECTIVE OF MALARIA ELIMINATION IN INDONESIA



**Elimination in Sumatra, NTB,
Kalimantan, Sulawesi: 2020**

**Elimination in Papua, Papua Barat,
Maluku, NTT, Malut : 2030**



**Elimination in Jawa, NAD, Kepri:
2015**

**Elimination in DKI, Bali, Batam:
2010**

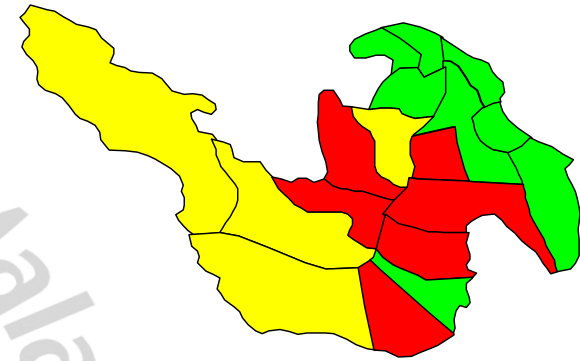


OBJECTIVE

MALARIA CONTROL PROGRAM

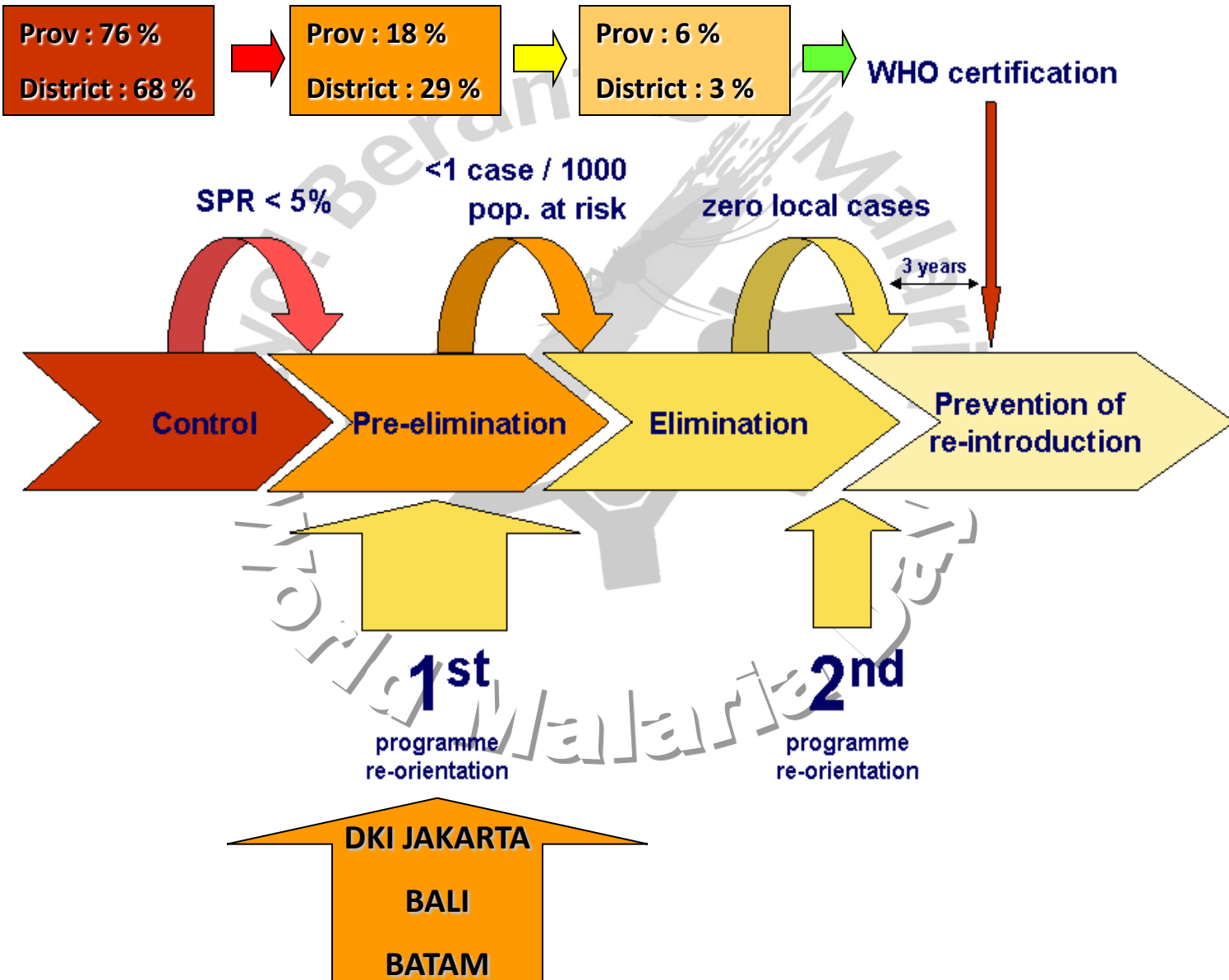


1. By the year 2010 be able to decrease all HCI areas (villages with malaria positive ≥ 5 per 1000 pop) by 50 %
2. In year 2010 all districts and cities able to conduct confirmation of malaria suspected cases and 100% treat with ACT
3. In year 2010 all Indonesia's endemic areas conduct intensification and integration in malaria control.
4. By the year 2010 begin elimination of malaria in stepwise by Islands





MALARIA ELIMINATION PHASE





MALARIA CONTROL PROGRAM POLICY

I. Malaria diagnosis:

Confirmation with mikroskop or Rapid Diagnostic Test (RDT)

STOP! CLINICAL MALARIA



II. Therapy:

Artemisinin-based Combination Therapy (ACT)

STOP! MONOTHERAPY





MALARIA CONTROL PROGRAM POLICY

III. Prevention:

LLIN (Long-Lasting Insecticidal Net) distribution,
Indoor Residual Spraying/IRS, repellent, etc





MALARIA CONTROL PROGRAM POLICY



IV. Partnership in Rollback Malaria Forum (GEBRAK MALARIA)

V. Village Malaria Post (Pos Malaria Desa / POSMALDES)



GLOBAL FUND PROJECT AREAS

Round 6 : (March 2008 – February 2013)

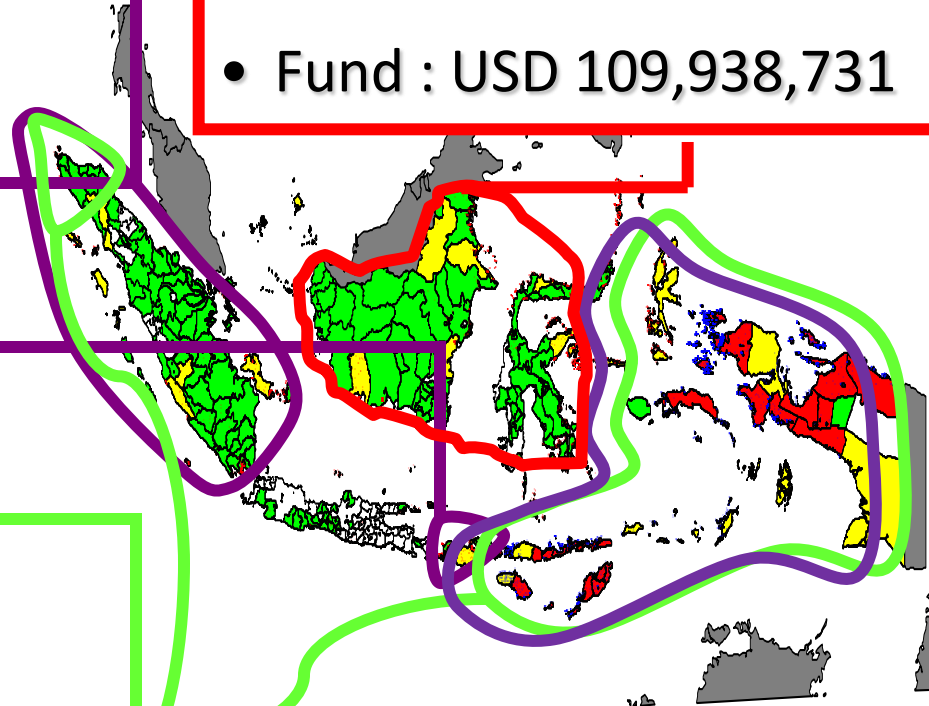
- Province in Sumatra & NTB & 5 Province in Eastern Indonesia.
Fund : USD 53,365,410

Round 8 : Jan 2010 – Dec 2014

- Province in Kalimantan & Sulawesi
- Fund : USD 109,938,731

Round 1 : (July 2003 – Juni 2008)

- Provinsi : Papua, Papua Barat, Maluku, Maluku Utara, NTT (5 Province in Eastern Indonesia)
Fund : USD 23,704,947





INTENSIFICATION AND INTEGRATION ACTIVITIES

- Early Diagnosis and Prompt Treatment (EDPT) through health unit services, mobile case detection and treatment in the field.





INTENSIFICATION AND INTEGRATION ACTIVITIES

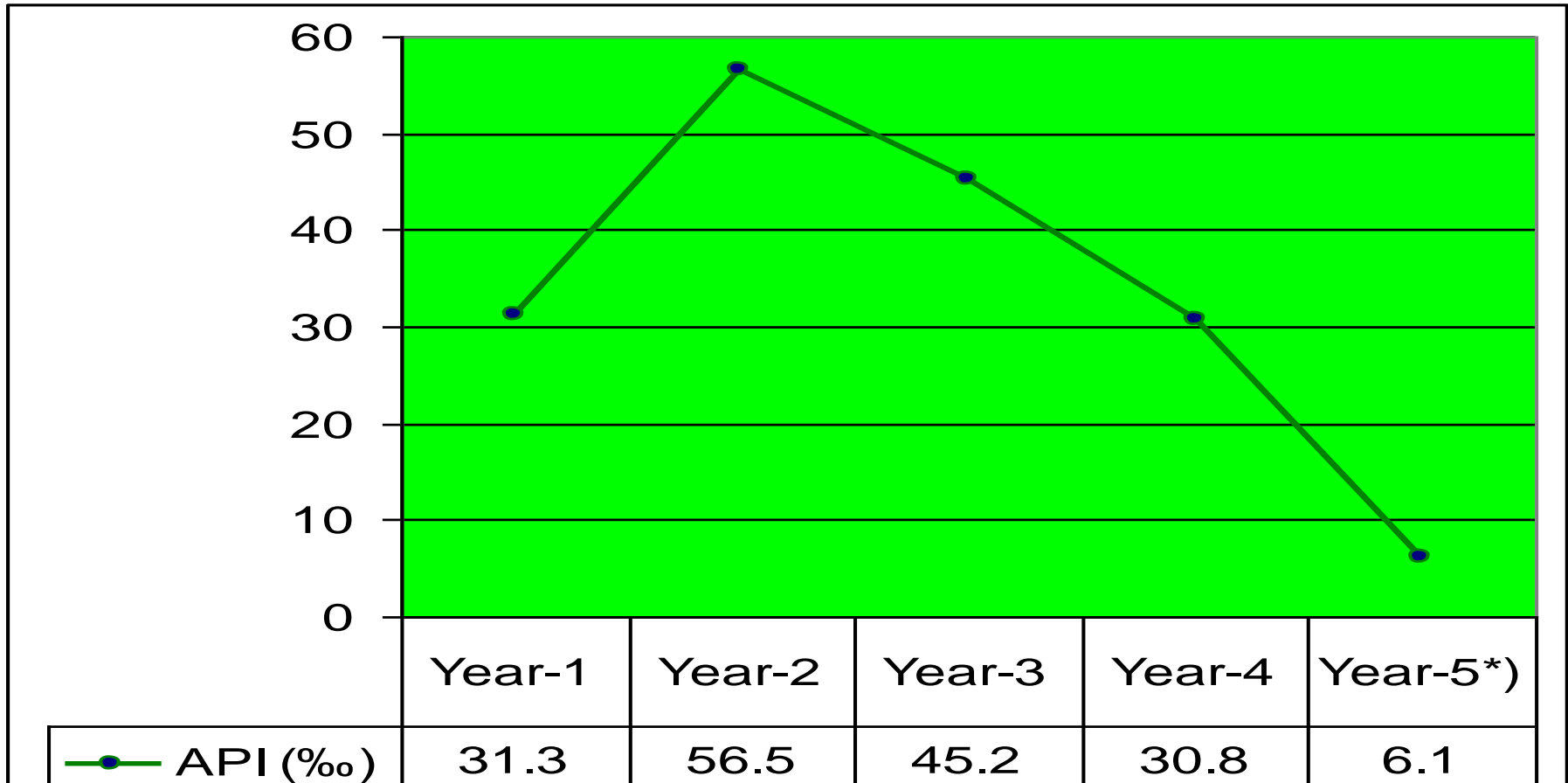


- Malaria EDPT and bednet distribution to pregnant women integrated with ANC program.
 - Malaria treatment and Bednet distribution during immunization program.
 - Bednet distribution during Mass Drug Administration for Filariasis control program and conduct mass campaign.





ANNUAL PARASITE INCIDENCE IN FIVE PROVINCES OF EASTERN INDONESIA SUPPORTED GLOBAL FUND YEAR 1 – YEAR 5



Note :

- 20 districts which were conduct malaria intervention since project started (July 2003), while 41 districts started since July 2006
- *) Year-5 (data on July – December 2007)



GF PERFORMANCE RATING

Round 1 :

Quarterly 19 (January – March 2008) : “A2” (adequate).

Quarterly 20 (April – June 2008) : “A2” (adequate).

Other Quarterly : “B1” (good).

Round 6 :

Quarterly 1 (March – May 2008) : “A1” (excellent).

Quarterly 2 (June – August 2008) : “A2” (adequate).

Semester 2 (Quarterly 3 – 4/September 2008 – February 2009) : “B1” (good).

Semester 3 (Quarterly 5 – 6/March – August 2009) : “A2” (adequate).

Round 8 : start on January 2010.



BROADENING INVOLVEMENT OF COMMUNITY AND KEY STAKEHOLDERS





COMMUNITY PARTICIPATION

By community itself (behavior in Avoiding Mosquito Bites):

- Build water supply and latrine in house or strive to wash, bath & latrine in public bathing, washing & latrine facilities before sunset or after sunrise.
- Put a wiring mosquito net in house.
- Socialize to sleep under LLIN
- Wear long sleeves shirt, trousers or skirt/pant during night activities
- Using anti-mosquito repelent.





COMMUNITY PARTICIPATION



Vector Control by Community :

- Routine activity by cleaning the breeding places by Friday Clean.
- Cleaning algae in puddle.
- Vegetation cleansing (spring, irrigation canal, under salak trees, etc).
- Open lagoon to drained sea water.
- Synchronization in planting rice.





PARTNERS IDENTIFICATION



Public Work Sector:

- Provide clean water and public bathing, washing and toilet facilities.
- Clean river program, etc.



Livestock Sector:

- Dissemination on information of stable placement as “cattle barrier”, etc.



Agriculture and Plantation Sector:

- Paddy planting together in one time.
- Sanitation of palm oil plantation.

Fisheries and Maritime Sector:

- Fish cultivation (larva consumer) in water institution.
- Mangrove reforestation.





PARTNERS IDENTIFICATION



Mining Sector :

- Reclamation of ex mining site to prevent as breeding places.



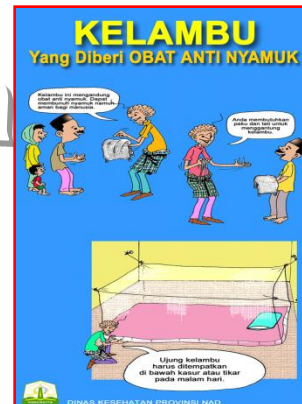
Tourism Sector :

- Involving resort, hotel and tourism institution to eliminate breeding places in their environment, etc.



Information/Public Affair Sector:

- Dissemination on prevention of mosquitos bites.
- Dissemination on case detection and treatment, etc.





PARTNERS IDENTIFICATION



National Education Sector :

- Curriculum on malaria control efforts as subject for Local Content.

Religion Sector :

- Curriculum on malaria control efforts as subject for Local Content.
- Dissemination on information of malaria tackling through devotion or other religious activities.

PKK (Caders) :

- Involving housewives in prevention of mosquitoes bites and case detection and treatment, etc.

Cross Sector/Cross Program and NGO :

- Taking part appropriate with their job description and role which will give positive impact to malaria control, etc.





BROADENING INVOLVEMENT TEAM TRAINING WORKSHOP 2009



- Place of Workshop :
 - Jakarta : Opening Ceremony and Unit I.
 - Lombok : Unit II, III, IV.
 - Bali : Unit V and Closing Ceremony.
- Participant of course : 18 persons (Cambodia, Indonesia, Laos, PDR, Philippines, PR Cina, Thailand, Timor Leste, Vietnam)
- The workshop is 4 weeks from 1 – 28 November 2009.





MONITORING OF RESISTANCE STATUS TO INSECTICIDE IN INDONESIA 2007 - 2009

- Susceptibility
Test Treatment.
59% Breeding
Place with direct
sunlight





MONITORING OF RESISTANCE STATUS TO INSECTICIDE IN INDONESIA 2007 - 2009



SITE	SPECIES	INSECTICIDE TESTED	N (mortality) (%)	STATUS
LAMPUNG S.Lampung, Rajabasa, Waymuli	<i>An.sundaicus</i>	Deltamethrin 0,05%	75 (100 %)	Susceptible
		Bendiocarb 0,1 %	84 (94,5 %)	Suspected Resistance
		Permethrin 0,25%	75 (95 %)	Suspected Resistance
		DDT 4%	77(27,7%	Resistance
		Cypermethrin0.05%	77(17.95%)	Resistance
		Alfacypermethrin 0.005%	78(17.8%)	Resistance
CENTRAL JAVA Purworejo	<i>An.barbirostris</i>	Cypermethrin 0,05%	84 (72 %)	Resistance
	<i>An.maculatus</i>	Cypermethrin 0,05%	91 (79 %)	Resistance
		Permethrin 0.75%	72 (88%)	Suspected Resistance
		DDT 4 %	85 (87%)	Suspected Resistance
SOUTH HALMAHERA	<i>An.kochi</i>	Permethrin 0,75%	52(100%)	Susceptible
	<i>An.vagus</i>	Permethrin 0,75%	93 (100%)	Susceptible

Mortality after 24h : * 98-100% Susceptible

- 80-97 Suspected Resistance/tolerant
- < 80% Resistance



DRUG QUALITY MONITORING

- Purpose :
 - To examine quality of malaria's drug procured by non program that circulate in public.
- Location : East Nusa Tenggara
- Participant :
 - The District Agency of Drug and Food Control Officer : 10 – 15 officers.
- Activities :
 - Training on how to examine anti malaria drugs.
 - Dissemination and socialization.





ENTOMOLOGICAL INOCULATION RATE (EIR) 2008 - 2009

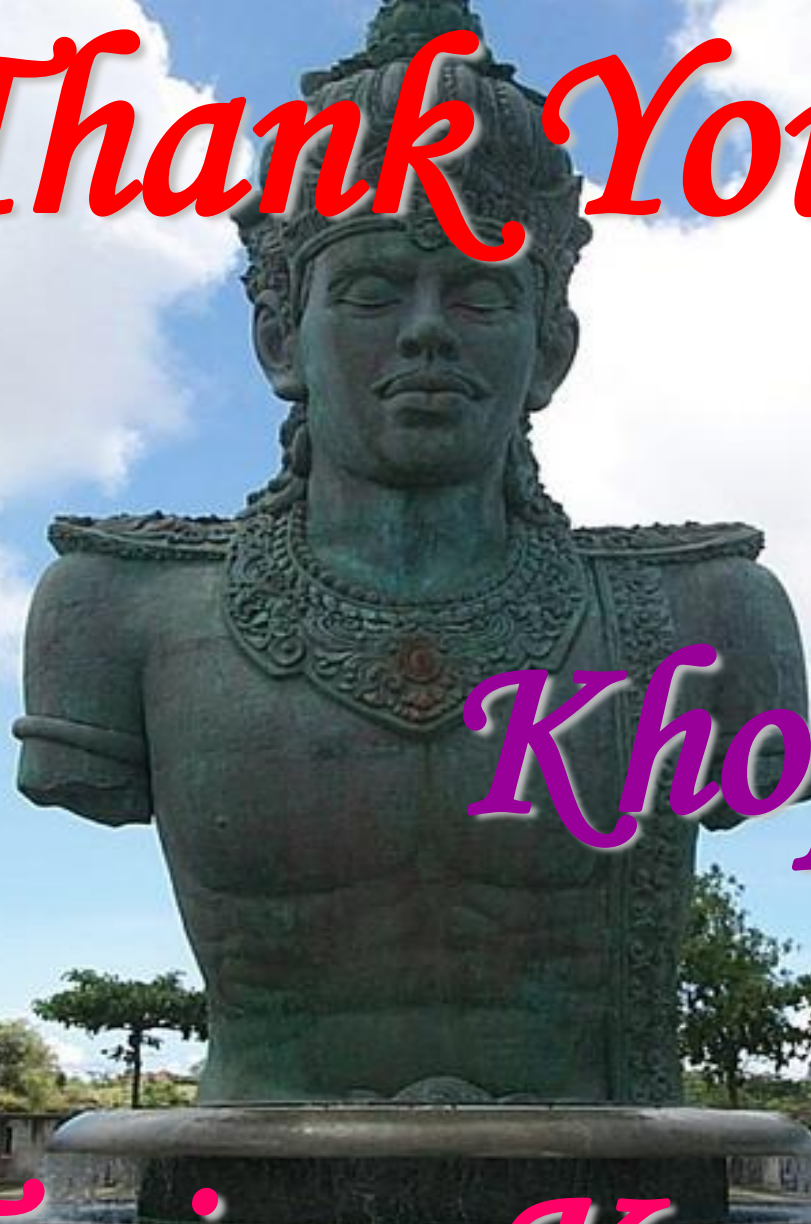


Mosquito bites infection possibility per person:

- NTB : every week or 4 times a month (EIR 2008).
- Babel : every 24 days or once a month (EIR 2008).
- Maluku : every 5.5 days or 6 times a month (EIR 2008), compared to EIR 2009 the result decline to 7,6 days or 4 times a month.



Thank You.....



Khop Chay

Terima Kasih.....



Departemen Kesehatan RI



Mengingat
Hari Malana Sedunia ke 2,
25 April 2009

**Menuju
Indonesia**

COUNTING

WAWASAN BERSIH

