

# *Malaria Situation 2004*

## *Vietnam*



**Asian Collaborative Training Network for MALARIA**



# VIETNAM NATIONAL MALARIA CONTROL PROJECT



## *evaluation of the MALARIA CONTROL in 2003 and plan of action for 2004 IN VIETNAM*

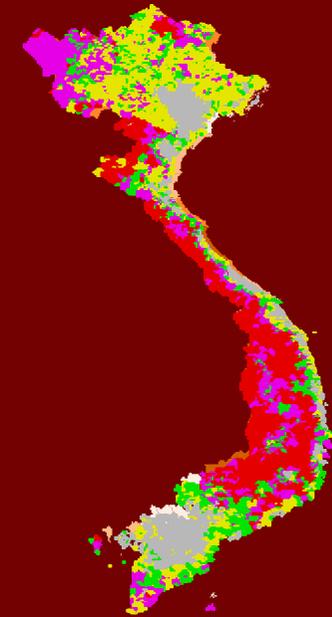


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Parasitology & Entomology and the VNMCP

# Population at risk of malaria

- Among 80 millions, 42 millions of people living in the malaria endemic areas .
- The endemic areas includes all the mountainous forest regions, along the international borders, Central Highland and South-West coastal region.



# ***Malaria vector distribution :***

## **The principal vectors:**

- Mountainous regions: *An. minimus*
- Mountainous regions from the Central to the South: *An. minimus* + *An. dirus*
- Southern Coastal region: *An. sundaicus*

## **The secondary vectors:**

- Mountainous regions: *An. aconitus*;  
*An. jeyporiensis*; *An. maculatus*
- Coastal Plain region: *An. subpictus*;  
*An. indefinitus*; *An. sinensis*; *An. vagus*



## ***Malaria parasite species:***

- *P. falciparum* :75-80%; *P. vivax*: 20-25%; *P. malariae*: 2%

# Main solutions

1. Continue the investments and technical guidance for rolling back malaria in the malaria “hot spots“, high endemic areas and high risk groups .

2. Improve the quality of malaria epidemiological surveillance .

3. Improve the quality of supervision and control of malaria vectors.

4. Improve the quality of malaria diagnosis and treatment.

5. Strengthen scientific researches, IEC and international cooperation.

6. Strengthen the socialization of malaria control.

# INSECTICIDES USED IN VIETNAM FOR MALARIA CONTROL PROGRAMME

- 2002      **FENDONA10 SC - Spray(30)** (effect in 9-10 months)
  - **Impregnation(25mg/)**(effect in 9-10 months)
- 2003      **ICON 10 WP (30 mg/m<sup>2</sup> ) - Spray** (effect in 9-11months)
- 2003      **FENDONA10 SC (25 mg/m<sup>2</sup>) - Impregnation**
- 2004      **ICON 2.5 CS(20 mg/m<sup>2</sup>)-Impregnation**(ef.7-11months)
- 2004      **FENDONA 10 SC (30 mg/m<sup>2</sup>) - Spray**



# Essential anti-malarial drugs & the use

Name of drug	Central & prov. levels	District level	Commune level	Village level
<b>Chloroquin (tablet)</b>	+	+	+	+
<b>Artesunate (tablet)</b>	+	+	+	+
<b>Artesunate (supp.)</b>	+	+	+	+
<b>Artesunate (inject.)</b>	+	+	+	
<b>Primaquine (tablet)</b>	+	+	+	
<b>Quinine (tablet)</b>	+	+	+	
<b>Quinine (inject.)</b>	+	+	+	
<b>CV-8 (tablet)</b>	+	+	+	
<b>Mefloquine (tablet)</b>	+	+		

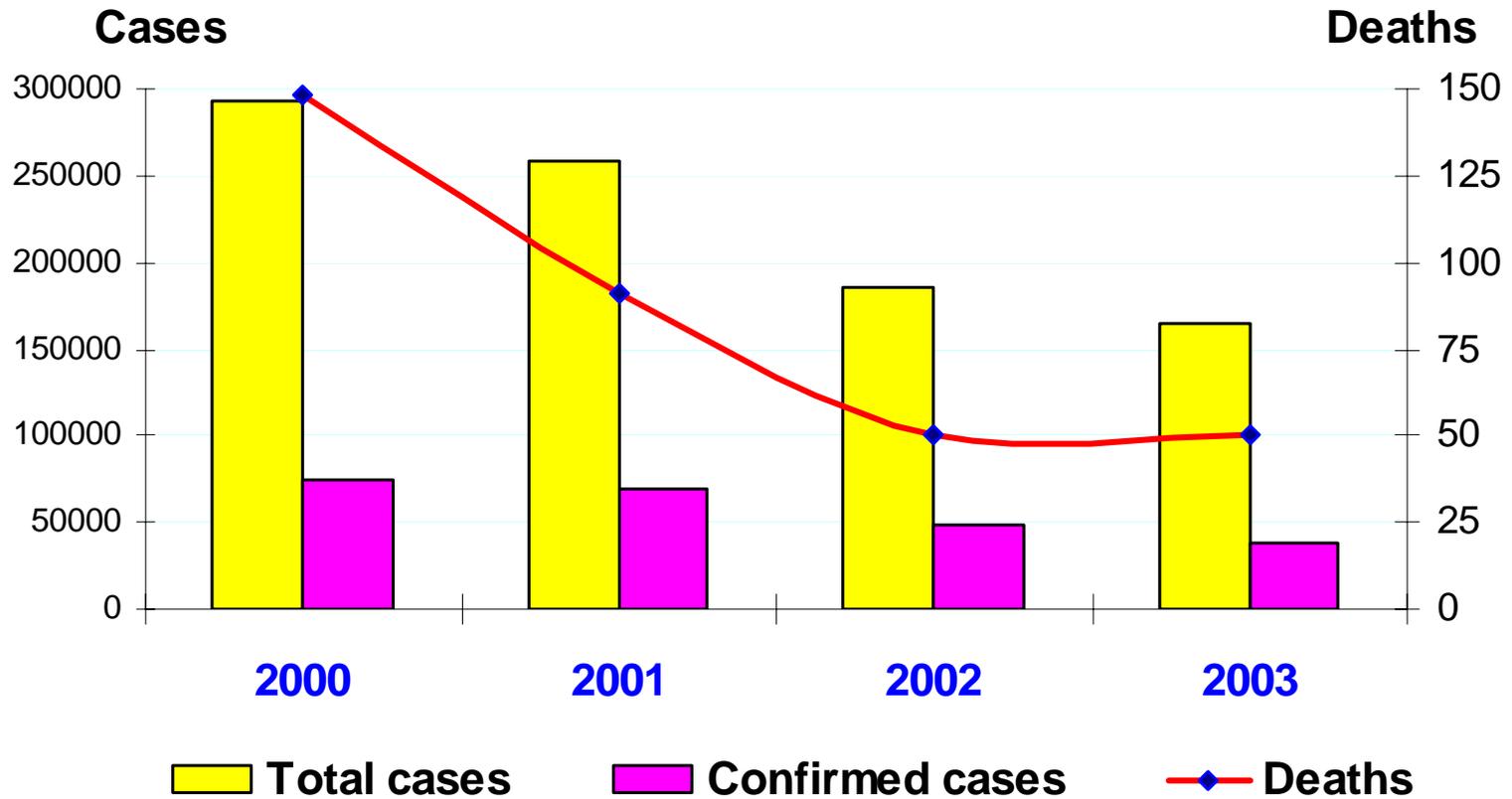
**+** Drugs for prophylaxis



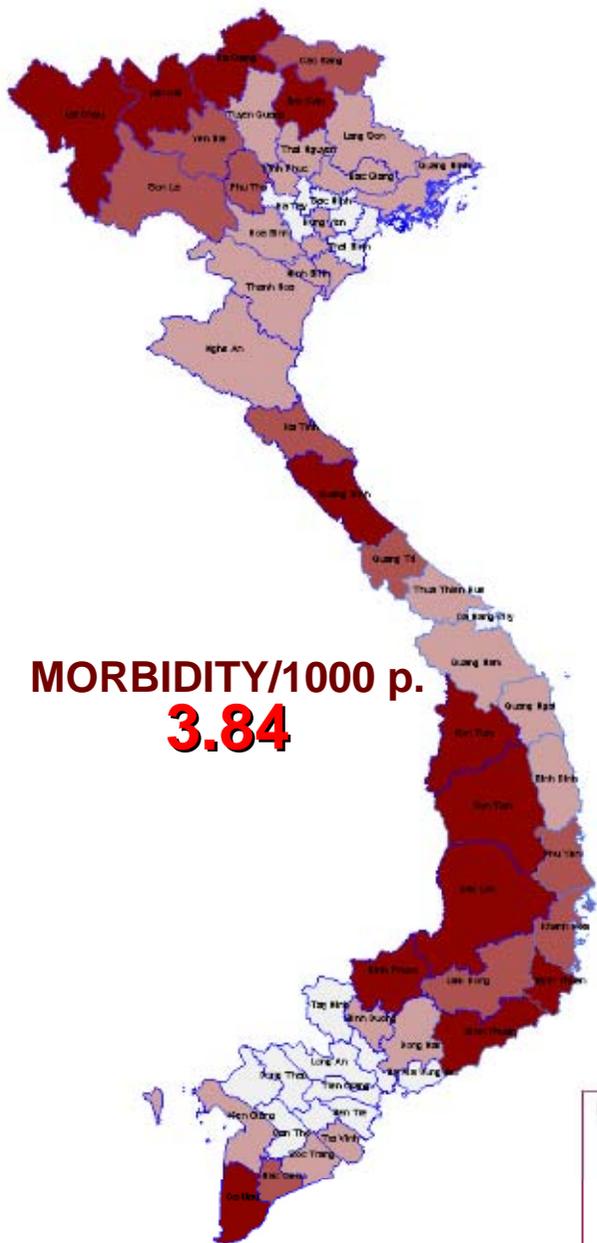
# Main malaria indicators in 2000-2003

Indicators	2000	2003	% <i>Reduced</i>
<b>No. of malaria cases</b>	293,016	164,706	<b>-43.8%</b>
<b>Morbidity rate/1000</b>	3.84	2.04	<b>-46.9%</b>
<b>No. of positive cases</b>	74,329	38,790	<b>-47.8%</b>
<b>No. of death</b>	148	51	<b>-65.6%</b>
<b>Mortality rate/100.000</b>	0.19	0.06	<b>-68.5%</b>
<b>No. of outbreaks</b>	02	02	<b>0</b>

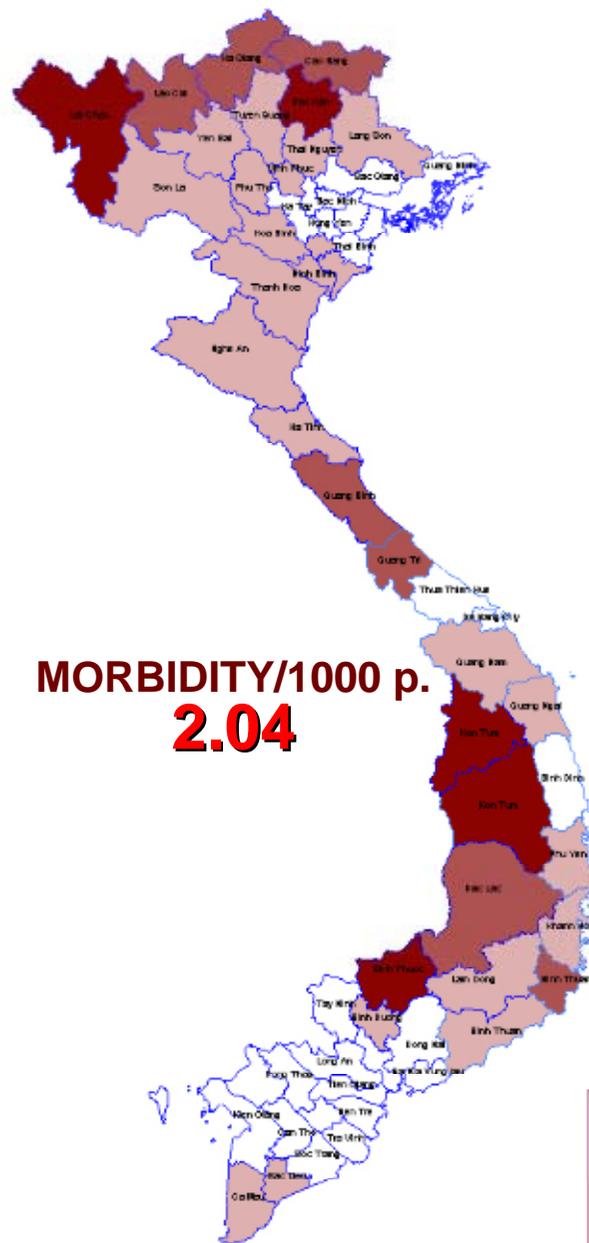
# Malaria cases & deaths from 2000 to 2003



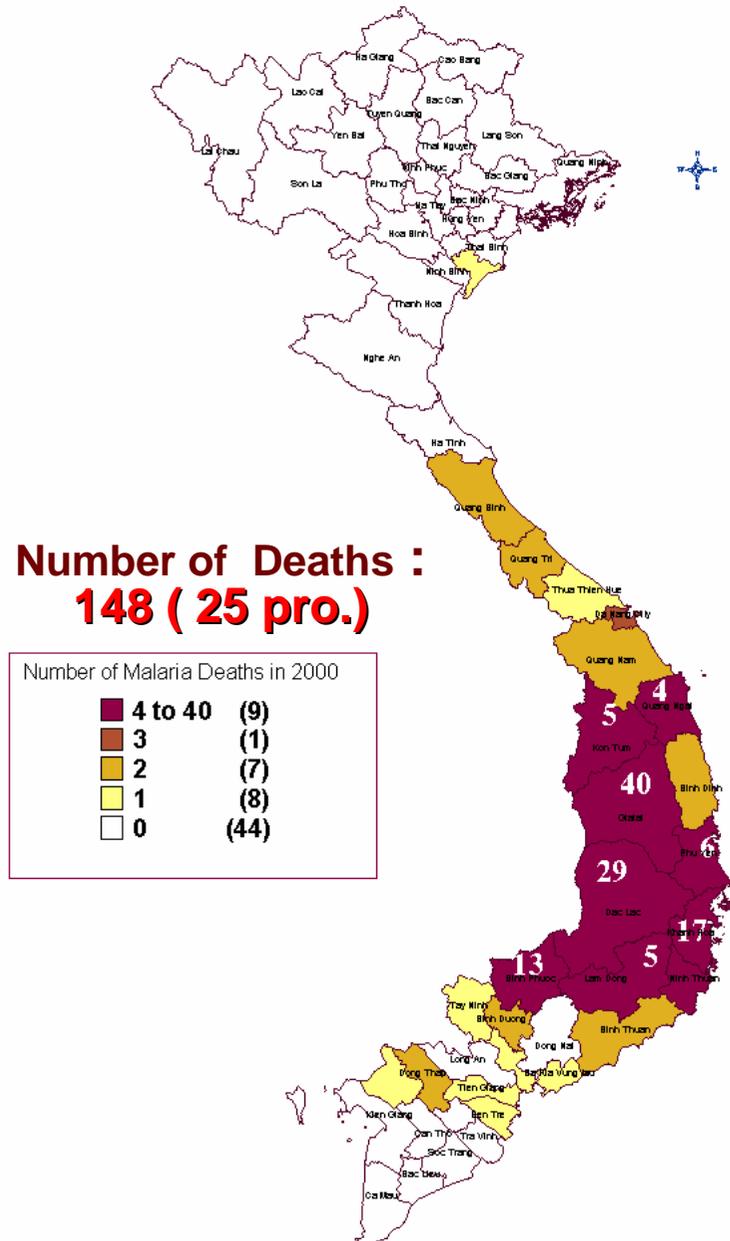
## MALRIA MORBIDITY/ 1000 POPULATION IN 2000



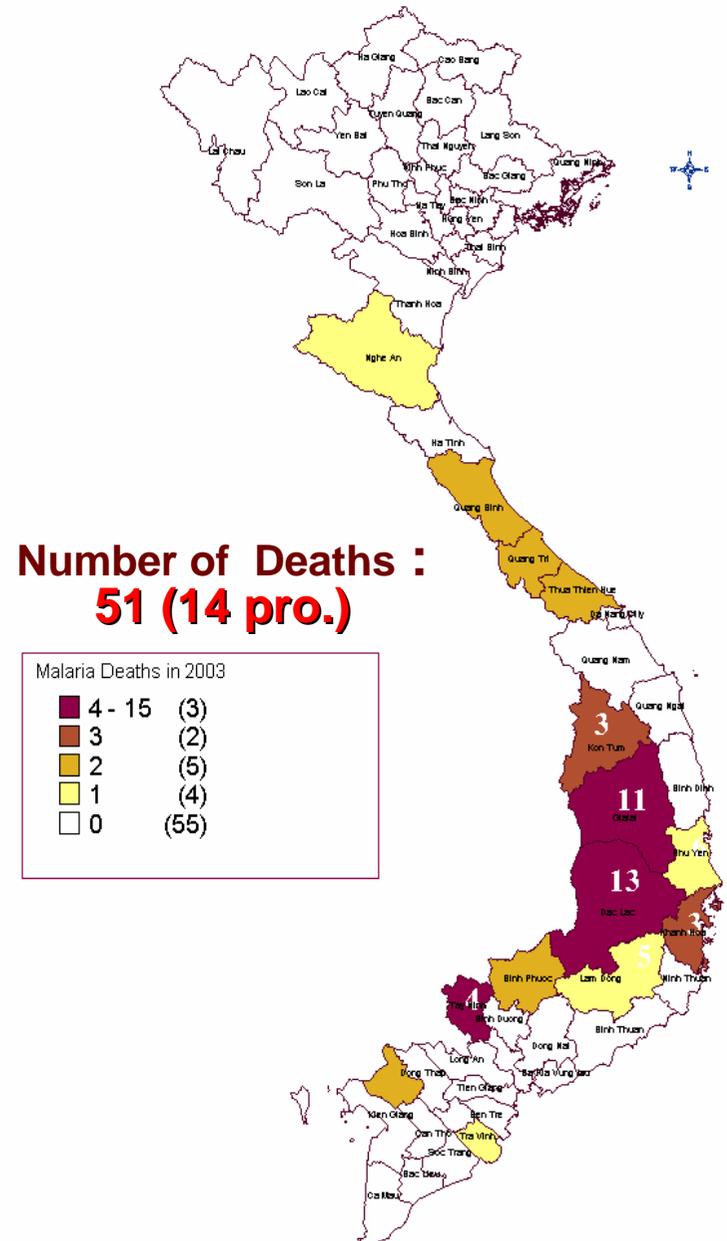
## MALRIA MORBIDITY/ 1000 POPULATION IN 2003



## NUMBER OF DEATHS DUE TO MALARIA IN 2000



## NUMBER OF DEATHS DUE TO MALARIA IN 2003



# Advantages

- 👉 High priority given by the Government, Ministry of Health and the various level authorities.
- 👉 Collaboration of different sectors.
- 👉 Development of suitable & creative malaria control strategy.
- 👉 Promotion of internal strength.
- 👉 Socialization of malaria control activities.
- 👉 International cooperation.

# Problems



**Changes of environment and natural climate.**



**Big population in the endemic areas  
(42 millions - 54%).**



**The coverage and quality of malaria control activities in the malaria endemic areas are limited.**



**Malaria indicators in some areas are still high.**



**Illegal migrant people going to and staying over night in the forests.**



**Unstable resources, some international supported projects have been finished.**

# Orientation and plan of action for malaria control 2004



## 1. General objectives:

- Continue to roll back malaria in the high endemic, forests, remote and border areas.
- Develop and strengthen the sustainable factors for malaria control.

## 2. Specific objectives:

- Reduce morbidity by 5% (to under 2/1,000 p.).
- Reduce mortality by 5% (to under 0.05/100,000 p.).
- No big malaria outbreaks.

### **3 . Main measures :**

- 1. Concentrate resources and malaria control activities in the high endemic areas and high risk groups.**
- 2. Improve the quality of malaria epidemiological surveillance, control of vectors, diagnosis and treatment.**
- 3. Strengthen IEC and the socialization of malaria control.**
- 4. Reduce morbidity, mortality, malaria outbreaks and continue to roll back malaria.**

# 4 . Targets

⊕ Protect 10-12 million people by vector control measures (50-80% of population in the malaria high endemic areas)

⇒ *Insecticide Treated Nets (ITNs): 8 millions*

⇒ *Indoor Residual Spraying (IRS): 2 millions*

⇒ *Provide 300,000 bednets to the target population.*

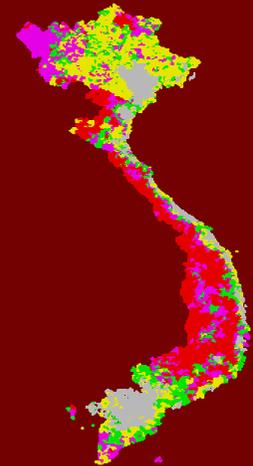
⊕ Treat 2.5 million man-times.

⊕ Provide 3-3.5 millions malaria treatments (free of charge) .



# STRATIFICATION OF MALARIA EPIDEMIOLOGICAL ZONES AND INTERVENTION

1. Non-endemic area
2. Free from malaria area
3. Malaria low endemic area
4. Malaria moderate endemic area
5. Malaria high endemic area



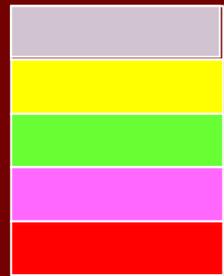
# Malaria epidemiological zones and intervention

Area	Characteristics	Intervention strategy
<b>1.Malaria no endemic</b>	<ul style="list-style-type: none"> <li>-Plain , Coastal-plain , Rice fields.</li> <li>-No Vectors: <i>An.minimus</i>, <i>An.dirus</i>, <i>An.sundaicus</i></li> <li>-No indigenous cases</li> </ul>	<ul style="list-style-type: none"> <li>- Management of cases and migration.</li> <li>- Provide drugs &amp; treated bednets (for people going to malaria area).</li> <li>- IEC /Health education .</li> </ul>
<b>2.Free from malaria</b>	<p>No malaria indigenous cases over last 5 years.</p>	<ul style="list-style-type: none"> <li>- Management of cases and migration.</li> <li>- Provide drugs &amp; treated bednets (for people going to malaria areas).</li> <li>- IEC/Health education .</li> <li>- Regular epi.surveillance of malaria.</li> </ul>
<b>3.Low endemic</b>	<ul style="list-style-type: none"> <li>- Foot-hill, highland (800-1000m North), mountains reaching in to the sea (South), coastal area.</li> <li>- Rice field,crops, fields,savanna</li> <li>- Low density of <i>An.minimus</i>, <i>An.dirus</i> or <i>An.sundaicus</i>.</li> <li>-Morbidity: 1-5/1000p/year.</li> </ul>	<ul style="list-style-type: none"> <li>- Detection &amp; management of cases.</li> <li>- Promotion of people using treated bednets in border malaria endemic areas.</li> <li>- IEC/Health education.</li> <li>- Regular surveillance.</li> <li>- Strengthening of grass-root health services.</li> <li>- Management of migration people going to and from malaria areas.</li> </ul>

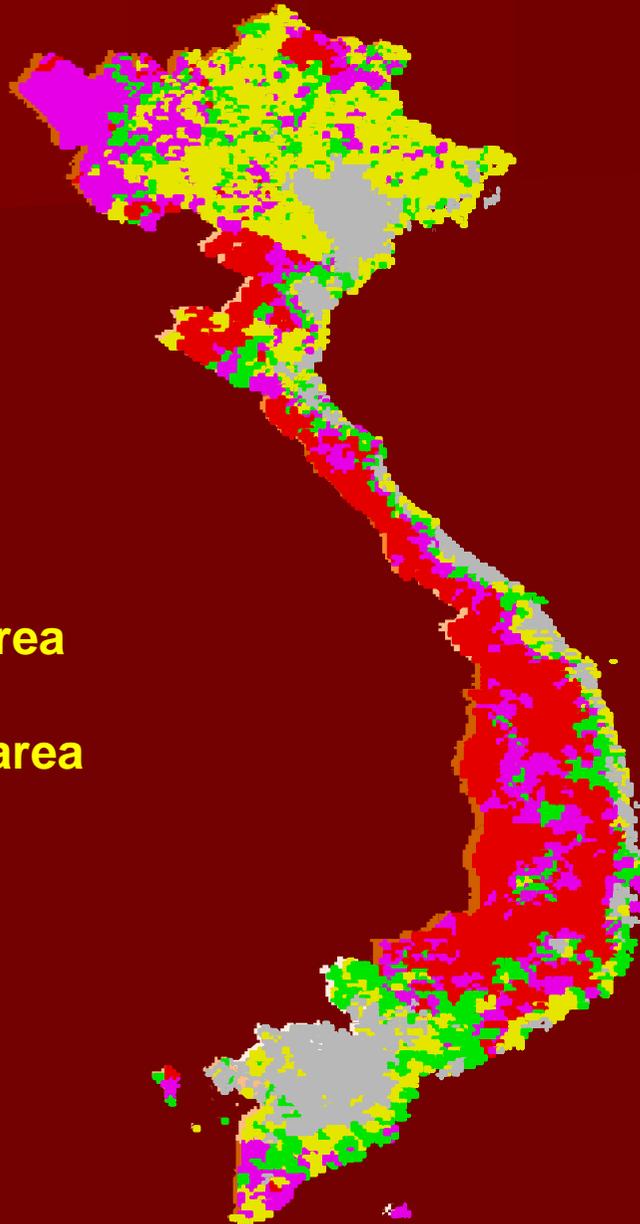
# Malaria epidemiological zones and intervention

Area	Characteristics	Intervention strategy
<p>4. <i>Moderate endemic</i></p>	<ul style="list-style-type: none"> <li>- Hilly areas , streams. coastal brackish water areas (South).</li> <li>- Thin forest with savanna, industrial plants.</li> <li>- Favourable for development of <i>An.minimus</i>, <i>An.dirus</i></li> <li>- Morbidity:5-10/1000p/ year.</li> <li>- <i>P.falciprum</i> &lt; 70 %</li> </ul>	<ul style="list-style-type: none"> <li>- Detection &amp; management of cases.</li> <li>- Promotion of people using treated bednets at home and in the forests.</li> <li>- Residual spray in areas where people do not use bednets.</li> <li>- IEC/Health education.</li> <li>- Regular malaria surveillance.</li> <li>- Strengthening of health service,</li> <li>- Inter-sectorial and civil-military cooperation.</li> </ul>
<p>5. <i>High endemic.</i></p>	<ul style="list-style-type: none"> <li>- Mountains with thick forests, forest fringes, re-forested, flat jungles (South) areas, running water, water collections.</li> <li>- <i>An. minimus</i>, <i>An. dirus</i> are well developed with high density.</li> <li>- Morbidity: &gt; 10/1000p/ year</li> <li>- <i>P.falciparum</i> &gt; 70 %</li> </ul>	<ul style="list-style-type: none"> <li>- Promotion of people to use treated bednets at home and in the forests.</li> <li>- Detection and management of cases.</li> <li>- House spray in malaria hot spots .</li> <li>- IEC / Health education</li> <li>- Regular surveillance.</li> <li>- Strengthening of health service.</li> <li>- Prevention and stand-by drugs for people going to forests.</li> <li>- Inter-sectorial&amp; civi-military cooperation</li> </ul>

# stratification into MALARIA epidemiological zones AND INTERVENTIONS



1. No malaria area
2. Free from malaria area
3. low endemic area
4. Moderate endemic area
5. High endemic area





*Thank you !*