

EHP/Nepal Achievements and Final Year Activities

Dr. Panduka M. Wijeyaratne

Resident Advisor

Environmental Health Project

**HMG Ministry of Health/USAID Program for the Prevention and
Control of Selected Infectious Diseases in Nepal**

Objective 1: Strengthened Vector-borne Disease Research and Training Center

- Technical capacity strengthening through training and participation in field activities
- Development of Information and Communication Unit (ICU)
- Management assistance



VBDRTC, Hetauda

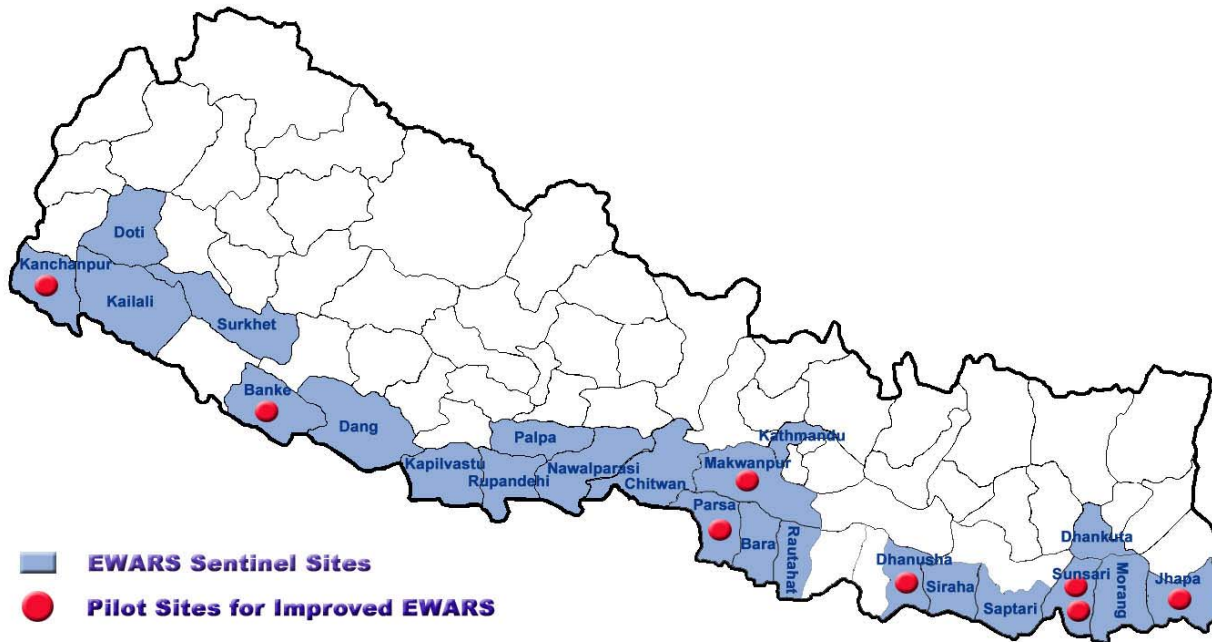
Objective 2: Improved Laboratory Diagnostic Facilities

- **Japanese Encephalitis**
 - Developed effective JE diagnostic system
 - Established referral centers for JE diagnosis
 - Strengthened collaboration with AFRIMS, Thailand, for quality assurance of lab diagnoses, particularly for JE
- **Kala-azar**
 - Institutionalized new KA lab diagnostic test (K39 dipstick) in KA endemic districts and in Kathmandu
- **Malaria**
 - Pilot implementations of malaria dipsticks for rapid diagnosis of *P. falciparum* in Jhapa, Dhanusha and Kanchanpur

Objective 2: Strengthened Early Warning Reporting System (EWARS)

Pilot Sites for Improved EWARS

- Improved EWARS in eight pilot sentinel sites through improved reporting and laboratory facilities



Objective 2: Continued Technical Support to EDCCD

- EWARS
- Laboratory diagnoses
- Malaria drug resistance
- Roll Back Malaria (RBM)
- GFATM proposal development
- Filariasis
- Disease control

Objective 3: Completed VBD Epidemiological Surveys

New information for better planning for disease prevention and control

- Vector adaptation and parasite drug sensitivity
- Changing ecology
- Population movement
- Ethnic diversities
- Health infrastructure
- Cross-border issues



Objective 3: Needed Multi-disciplinary Training

- Medical entomology
- Parasitology
- Socio-behavioral
- Geographic information system (GIS)
- Malaria control and prevention



Objective 3: Identified Information Needs

- **Socio Behavioral – qualitative and quantitative**
- **Environmental and ecological aspects**
- **Vectors and animal reservoirs**
- **Overall infrastructure**
- **Evidence of infection**
- **Distribution maps**



Objective 3: Developed Comprehensive Vector-borne Disease Database

- Analysis and data available in CD ROM





Aim: This interactive CD-ROM is designed to provide recent information related to the prevention and control of vector-borne diseases in Nepal.

This disc has been thoroughly scanned and tested at all stages of production, but - as with all new software - we recommend you run a virus checker before use. EHP can not accept responsibility for any disruption, damage and/or loss of your data or computer system that may occur while using this CD.

Technical Support:
If you have a query about using this CD's interface or content, please contact: ehp@wlink.com.np




Minimum System Requirements:




- Pentium I processor 266 MHz
- 64 MB RAM
- 16 Bit SVGA display
- CD drive 8x
- Windows 98/2000/XP/NT

| | | | |
|--|--|---|---|
|  Malaria Vector |  JE Intermediate Host |  JE Vector |  Kala-azar Patient |
|--|--|---|---|

For further information,
EHP-Nepal, PO Box 8975, EPC 535, Kalimati, Kathmandu, Nepal
Phone: 977-1-271833/278614/282677/286070 Fax: 977-1-277404
E-mail: ehp@wlink.com.np

Nepal Vector-Borne Disease Program

-  Kala-azar Vector
-  Malaria Parasite
-  JE Patient



Objective 4: Addressed Gaps of the VBD Epidemiological Surveys

Illustrative Examples of Operations Research

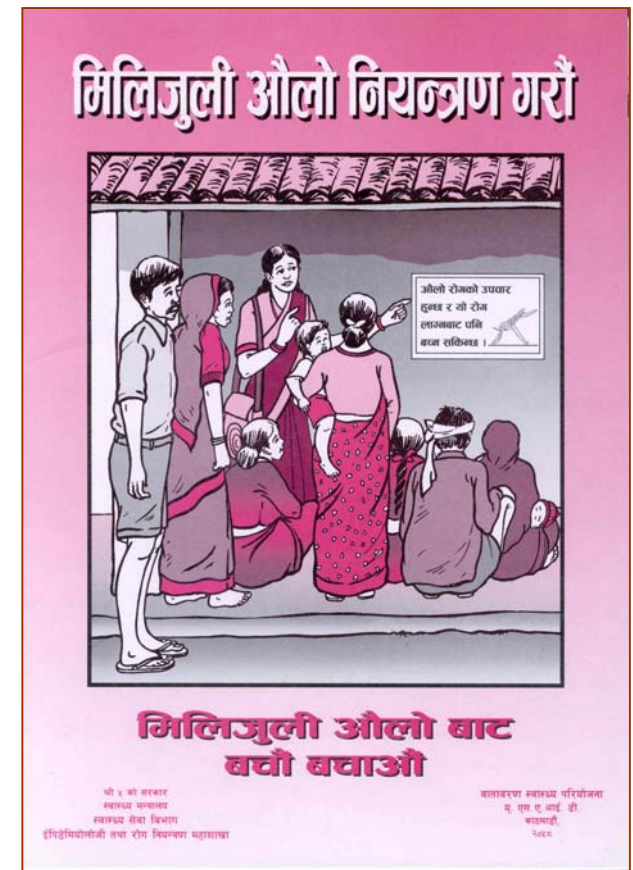
- Malaria Drug Efficacy Study
- Japanese Encephalitis Ecological Study in Lalitpur District, Kathmandu Valley
- Case Control Study to Identify Risk Factors for Kala-azar in Nepal
- Japanese Encephalitis Laboratory Diagnosis
- Kala-azar Diagnostic Review in Nepal

Objective 4: Implemented Community-based Intervention Activities

- **Dhanusha-Mahottari Vector-borne Disease Program for the Prevention and Control of Kala-azar**
 - **New approach to community-based early case identification, referral and complete treatment of KA**
 - **Established KA diagnosis and treatment at the peripheral health facilities**
 - **Developed and disseminated key messages to raise awareness and stimulate care seeking of KA through BCC**

Objective 4: Implemented Community-based Intervention Activities

- Malaria prevention and control through early diagnosis and prompt treatment in Kanchanpur district with Female Community Health Volunteers (FCHVs)



Manual for Training of Trainers on Community-based Malaria Prevention

Objective 4: Operations Research

- **Initiated investigation on the kala-azar larval breeding**
- **Phase IV trial of Miltefosine (oral drug for the treatment of KA) to be conducted by BPKIHS, through EHP support**

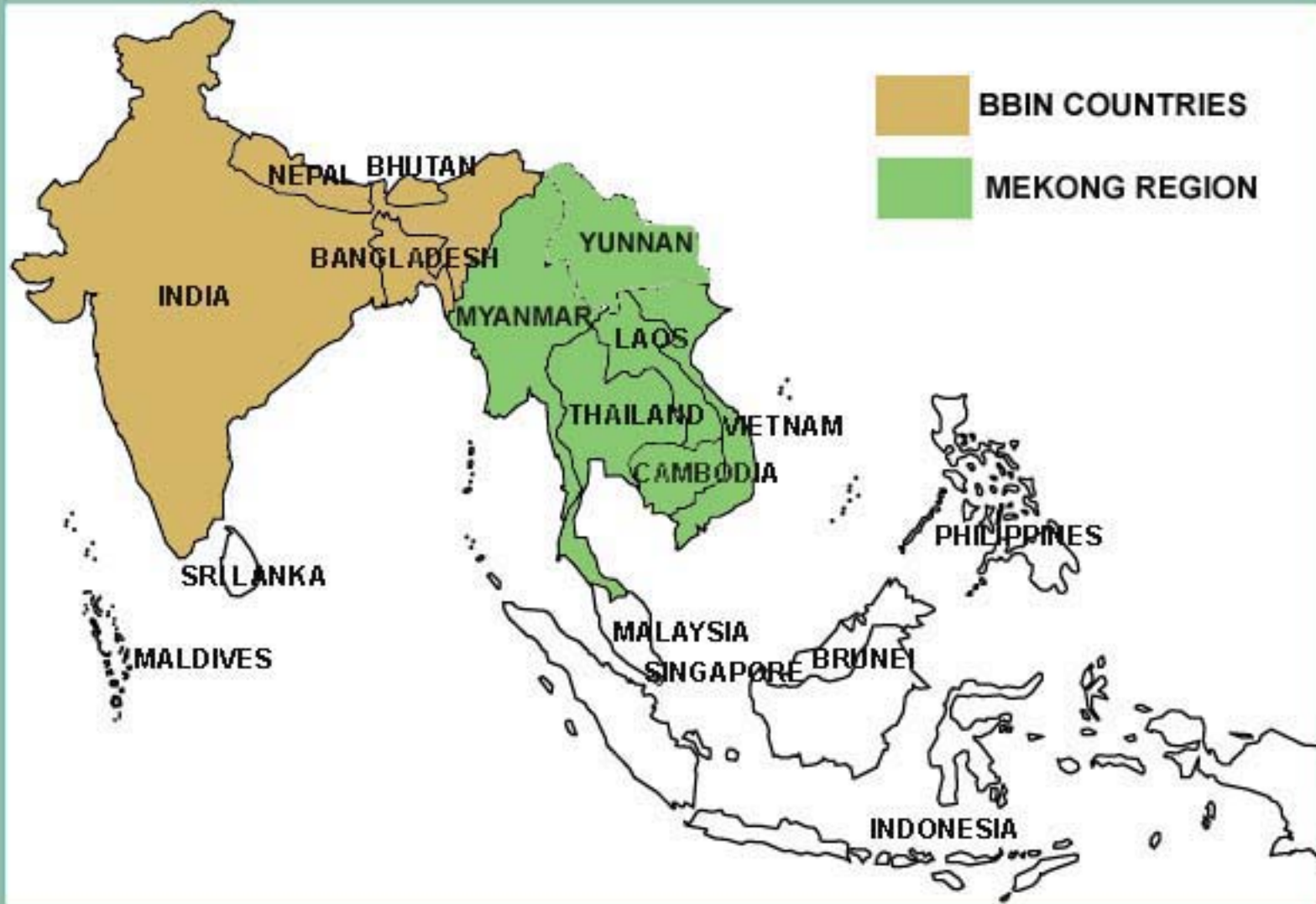
Objective 5 and ANE: Established Inter-country Cross-border Collaboration

- Bangladesh, Bhutan, India and Nepal (BBIN) web site (<http://www.bbin.org>) launched and updated for information sharing
- Malaria drug resistance inventory and insecticide resistance of BBIN developed
- Common approaches to kala-azar and JE lab diagnosis established
- Common approaches to standardized surveillance and lab diagnostics for JE established
- Malaria drug resistance studies in Indo-Nepal border areas initiated
- Linkages established with Bihar State, India for the prevention and control of kala-azar and malaria

Beyond National Policies

- Standardization of surveillance for priority vector-borne diseases in BBIN
- Common approaches to surveillance and lab diagnosis of JE
- Malaria drug resistance monitoring





MALARIA INTER-COUNTRY CROSS-BORDER ACTIVITIES

- **Malaria Drug Resistance Study in Indo-Nepal Border Areas (Jhapa-West Bengal): Ongoing**

| Screened | Positive | P.v. | P.f. | Mixed | Total Enrolled | Drop Out | Under Study |
|----------|----------|------|------|-------|----------------|----------|-------------|
| 1012 | 141 | 50 | 91 | 2 | 58 | 2 | 47 |

Policy Directions

Malaria

- Rapid diagnosis
- Community approaches- FCHV
- BCC support
- Drug efficacy / resistance and surveillance.
- Cross-border

Policy Directions

J.E.

- **Standard case definitions**
- **Lab diagnosis**
- **Surveillance / disease burden**
- **Inter country- cross border**

Policy Directions

Kala azar

- **K-39 Dipstick diagnosis**
- **Community based case detection / referral**
- **Peripheralized diagnosis and treatment**
- **Larval control approaches**
- **BCC**
- **Cross-border collaboration**

TRANSITIONAL PLAN

- **Develop plan to ensure critical functions of VBDRTC continue when EHP support is completed.**
- **Hand over all training manuals, all final templates of EWARS, RRT and laboratory requisition and reporting forms to EDCCD and WHO.**
- **Compile and distribute lab, EWARS and RRT training manual and operation documents/forms.**

TRANSITIONAL PLANS

- **Hand over BCC materials to NHTC, NHIECC and other partners.**
- **Share output of pilot intervention activities in malaria and kala-azar with MoH for possible refinement and further examination through NFHP and other partners.**
- **Submit consolidated report on KA Vector Breeding Study and develop technical proposal for future larvicide trial of KA vector (Phase IV).**
- **Conduct a Dissemination Workshop.**

Key Final Reports

- **Assessment of Improved Implementation in Eight Piloted Sentinel Sites and Overall System Functions**
- **EHP Activity Report based on EWARS Assessment Report**
- **CD ROM with reports and synthesis studies**
- **Annotated Bibliography of Technical Reports**
- **Development of Peripheral Diagnosis and Treatment for KA in Nepal**

Key Final Reports

- **Evaluation of a Behavior Change Communication (BCC) Strategy for KA in Selected Districts in Nepal**
- **Assessment of KA interventions in Dhanusha-Mahottari**
- **Technical Design of Malaria Prevention and Control Approach in Kanchanpur**
- **KA Vector Breeding Study**
- **Indo-Nepal Cross-border Collaboration for Kala-azar Control**
- **Malaria drug resistance / efficacy – Indo-Nepal**

Milestones: From Information to Interventions to Policy Recommendations

**Multi-disciplinary Training
1998-2002**

**Epidemiological Surveys
1999-2000**

**Operations Research
2000-2003**

**Strengthened
Capacity and
Improved
Database
1999-2003**

**Improved
Laboratory
Diagnosis
Capacity
1999-2003**

**Strengthened
Surveillance
Capacity
2001-2003**

**Pilot
Interventions
2001-2003**

**Inter-country
Cross-border
Collaboration
2000-2004**

Policy Recommendations - 2004

Enhanced VBD Prevention and Control