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# Cross-border Control of AIDS, TB Malaria and Kala-azar in Pilot Districts of **India** and **Nepal**

*A Joint Plan of Action*

WHO Project: ICP OSD 001



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## EXECUTIVE SUMMARY

Globalization and trade combined with socio-economic disparities has resulted in increased migration across international borders in South-East Asia. Bangladesh, Bhutan, India and Nepal have common porous border with frequent migration of population. Health services in the border districts are poor and inadequate especially in peripheral areas. Communicable diseases like HIV/AIDS, Tuberculosis, Malaria and Kala-azar pose major challenges particularly in border areas requiring synchronization of intervention measures. The paradigm of cross-border control of these priority communicable diseases needs an integrated and co-ordinated approach.

Realizing the seriousness of the situation, Health Ministers of the SEAR called upon WHO to assist in developing a strategy for control of communicable diseases prevalent in border districts. The Inter-Country meeting held at Kathmandu, Nepal, 6-9 March, 2001, identified four priority communicable diseases, namely: HIV / AIDS, Tuberculosis, Malaria and Kala-azar for control. Initially pilot projects in eleven adjacent districts of Bangladesh, Bhutan, India and Nepal are proposed with the development and implementation of joint plans of action. The four priority diseases were chosen because of their socio-economic impact, requiring improved equity in health for sustainable progress and development

A joint plan of action between the selected pilot districts of Nepal (Bara, Kailali and Rautahat) and India (East Champaran in Bihar and Lakhimpur Kheri in Uttar Pradesh), has been developed to address the cross-border problem of the four diseases and to initiate a co-ordinated control strategy to augment local level efforts during 2002-03.

The main objectives of plan of action are:

- To agree on appropriate and coherent technical policies relating to the control of AIDS, Tuberculosis, Malaria and Kala-azar and establish effective net-working for cross-border collaboration;
- To implement interventions related to the prevention and control of the four diseases in pilot districts at the borders in order to reduce the disease burden and improve the health status of the people in general;

- To document the disease control strategies and approaches for these four priority communicable diseases, including a multi-disease surveillance mechanism at the cross-border pilot district clusters.

A preliminary situational analysis of the 5 districts (India - 2 and Nepal -3), followed by in depth discussions in a consensus building meeting with the concerned programme officers of both countries formed the basis for the joint plan of action. Major areas of work identified are 1) situational analysis, 2) advocacy and co-ordination, 3) capacity building, 4) programme implementation, monitoring and evaluation. To do so, nodal points identified in the project districts, will have the support of district co-ordination committees for decision making and working groups for implementation. A mechanism for the exchange of information will be established through the nodal points at the local level. State and National level nodal points will similarly provide administrative support for capacity building and strengthening of the district health system, and support for programme implementation, monitoring and evaluation. A set of indicators and targets for the programme have been developed.

Nodal points at the district, state, and national-levels, and district co-ordination committees for India and Nepal were agreed upon during the consensus building meeting.

District profiles for the five districts have been prepared following the field visits. The background information, epidemiological status of communicable diseases with special reference to AIDS, Tuberculosis, Malaria and Kala-azar and current control status were collected and analyzed, but needs to be updated regularly.

It is expected that all the components of the control programme on HIV/AIDS, TB, Malaria and Kala-azar will be fully implemented and cross-border collaboration established for case management and interventions for prevention and control including synchronization, in the adjacent districts of the two countries. Information and experiences will be shared between the participating districts, by establishing a mechanism for the exchange of information including outbreaks of any of the diseases. The programme will be reviewed during the regular inter-country meetings. Implementation status and experiences will be documented, and based on the lessons learnt, the programme will be extended subsequently to other border districts. Other priority diseases of public health importance can be considered for inclusion in cross-border control efforts, based on technical feasibility and mutual agreement..

## 1. INTRODUCTION

It is estimated that nearly one billion people move across international borders every year. In South East Asian countries like India and Nepal, population movement has increased dramatically in recent years because of trade and commerce, employment opportunities, education, pilgrimage, migration of labour forces for development projects and agriculture. During the last decade countries with low HIV prevalence have experienced increasing trends in HIV infection among various population groups. The trafficking of girls and women has posed a serious threat in regard to the spread of HIV.

Tuberculosis and Malaria are major public health concerns in most South Asian countries, including India and Nepal, as these diseases are widely found in these countries. Malaria moreover has epidemic potential. Drug resistant *P. falciparum* is found along both sides of many international borders. Treatment of tuberculosis, care and support for AIDS and management of sexually transmitted infections (STIs) in border areas require specific attention. Kala-azar is endemic in a few South Asian countries, especially along their international borders. AIDS, TB, Malaria and Kala-azar, constitute special problems in border areas which require co-operation between countries, including India and Nepal, to address the specific issues related to combat these diseases.

Between 1995-98 the World Health Organisation (WHO) had organized several border meetings for SEAR countries in relation to the cross-border control of Kala-azar and Malaria. An Inter-country meeting on cross-border problems held in Kathmandu, Nepal, 6-9 March 2001 emphasized the need for development and implementation of Joint Plans of Action (JPA) to control four priority communicable diseases, namely: Malaria, Kala-azar, Tuberculosis and HIV/AIDS. This activity was further emphasized and endorsed during a further series of inter-country meetings; New Delhi, India (July 2001), and at the 54th session of SEA regional committee in Myanmar (September 2001). Provision of treatment facilities for patients who cross-borders, synchronization of diseases control strategies and sharing of information would help a great deal in achieving the targets of disease control and improving rational use of resources at the country and the regional level. In view of this, WHO has initiated pilot projects into cross-border control of

these four priority communicable diseases, in 11 selected districts of Bangladesh, Bhutan, India and Nepal.

The development of a Joint Plans of Action and the establishment of an effective mechanism to enable respective Programme Managers to communicate directly, as and when necessary, are crucial first steps for the implementation of cross-border control activities. . The Programme Managers need to share essential information regarding disease outbreaks in addition to routine information gathering. Support from the WHO will facilitate the process, particularly in regard to national capacity building and strengthening of the existing district health systems to control the four priority communicable diseases.

In the initial phase, the Joint Plans of Action will be implemented in the Pilot Districts identified at the Kathmandu meeting and eventually activities will be scaled up to other cross-border districts. All resources available, from the South Asian Association for Regional Cooperation (SAARC), other Development Partners and International Organizations active at the border districts, will be utilized to strengthen this cross-border collaboration initiative.

The following border districts of India and Nepal have been selected as the initial pilot districts for the cross-border control of HIV/AIDS, Kala-azar, Malaria, and Tuberculosis:

India	East Champaran (Bihar) and Lakhimpur Kheri (Uttar Pradesh)
Nepal	Bara, Kailali, and Rautahat

Profiles of these districts, health services infrastructure, the problem of the four priority communicable diseases and the status of their control and issues relevant for cross-border control of these diseases are shown Annexes 1 and 2

## **2. RATIONALE FOR CROSS-BORDER INTERVENTIONS ALONG INDIA-NEPAL BORDER**

The border between India and Nepal is porous and such an arrangement has benefited the economies of the two countries.

The health services situated along the border are by and large of poor quality as compared to the more central parts of the respective districts, due to the many difficulties in establishing the required infrastructures and delivering effective health care in these areas. The eco-epidemiological pattern on both sides of the border is often similar, which make the transmission dynamics of the communicable diseases, almost identical.

Diseases like Malaria and Kala-azar have common physical and biological characteristics, whereas HIV transmission is more related to social and behavioural issues. India and Nepal have already launched control programmes for these diseases, based on WHO strategies and guidelines. However, there are some variations in implementation because of the different health care delivery systems operating in the respective country. India and Nepal have such variations with respect to drug policy for treatment of the diseases, and insecticide policy for vector control. There will also be a need to synchronize vector control activities across-borders.

In the case of Tuberculosis, the respective TB Control Programmes of India and Nepal use different drug regimens (see table below) and these differences will need to be considered when a patient migrates across the border.

Country	Cat. I	Cat. II	Cat. III
India	2H <sub>3</sub> R <sub>3</sub> Z <sub>3</sub> E <sub>3</sub> /4H <sub>3</sub> R <sub>3</sub>	2S <sub>3</sub> H <sub>3</sub> R <sub>3</sub> Z <sub>3</sub> E <sub>3</sub> /1H <sub>3</sub> R <sub>3</sub> Z <sub>3</sub> E <sub>3</sub> /5H <sub>3</sub> R <sub>3</sub> E <sub>3</sub>	2H <sub>3</sub> R <sub>3</sub> Z <sub>3</sub> /4H <sub>3</sub> R <sub>3</sub>
Nepal	2HRZE/6HE	2SHRZE/1HRZE/5HRE	2HRZ/6HE

Movement of populations across the border puts them in a different environment away from home, leading to changes of behaviour like indulging in unprotected sex with multiple partners, injecting drug abuse, thereby making them vulnerable to HIV infection.

The control of Malaria, Kala-azar, Tuberculosis and HIV/AIDS along the border constitutes a distinct epidemiological paradigm requiring a partnership between the two countries. It is in this context that the Joint Plan of Action between India and Nepal for control of the four priority communicable diseases has been initiated. A bilateral and horizontal networking mechanism

will enhance the sharing and learning process in order to control these priority communicable diseases.

### **3. GOALS AND OBJECTIVES**

Cross-border control of the four priority communicable diseases aims at the institutionalization of a collaborative mechanism between border districts of South-East Asia region countries. An integrated approach to the control of AIDS, Tuberculosis, Malaria and Kala-azar will be adopted on a pilot basis in 11 districts of the above four mentioned countries. This includes inter-alia provision of treatment facilities for patients from across borders, synchronisation of interventions and establishment of an information exchange mechanism, especially at the local level. This Joint Plan of Action has been drafted in order to achieve this.

Since communicable diseases do not respect international boundaries, the project envisages to control the four priority diseases in border areas, by enhancing collaboration to improve the health status of the people living in these areas, by reducing disease burdens and thereby improving the economic status of the respective populations. The national disease control programmes on HIV/ AIDS, TB, Malaria and Kala-azar are in operation and will be strengthened in an integrated manner by India and Nepal, giving priority to the border areas. For this purpose, India and Nepal have agreed to adopt appropriate and coherent technical policies relating to cross-border case management and interventions for control in selected pilot districts of the two countries, and to operate similar technical and operational guidelines with flexibility at the local level and to finalize a mutually agreeable plan. The specific objectives of the pilot project are:

- To agree on appropriate and coherent technical policies relating to the control of AIDS, Tuberculosis, Malaria and Kala-azar and establish effective net-working for cross-border collaboration;
- To implement interventions related to the prevention and control of the four diseases in pilot districts at the borders in order to reduce the disease burden and improve the health status of the people in general;

- To document the disease control strategies and approaches for these four priority communicable diseases, including a multi-disease surveillance mechanism at the cross-border pilot district clusters.

#### **4. STRATEGIES AND APPROACHES**

The cross-border Joint Plan of Action will be implemented through the District Health System and essential programme support would be provided from the respective Governments in addition to technical backup from WHO.

The following strategies and approaches will be employed:

- Selected Districts on either side of the border between India and Nepal will constitute an intervention cluster namely: a) East Champaran (Bihar), India and Bara & Rauhatat in Nepal.
- A District Nodal point and District Coordination Committee in each district will oversee the process and progress of the project implementation.
- District Co-ordination committees for all the five project districts were constituted in a consensus meeting between India and Nepal held at Birgunj on 26-27 February 2002. Similarly nodal point at the district and state levels have been identified, which will require formal Government approval.
- The District Health System, including infrastructure in inaccessible peripheral areas, will be strengthened to address the cross-border problems of the four priority communicable diseases with technical support from WHO and will organize control interventions from the country programmes.
- The District Health Authorities on either side of the border will communicate with their counterparts, using the easiest and most readily available means of communication. They will share essential information and hold meetings twice a year for an exchange of data and to share experiences.
- Disease control interventions need to be synchronized at the District and State/Regional levels, based on the epidemiological pattern and transmission potentials. This would benefit the

programmes in achieving a cumulative impact and rationalise the use of scarce resources.

- Programme implementation will be monitored using a set of core indicators and the experiences gained will be documented at the planning, implementation and evaluation stage.
- The cross-border initiative under this Joint Plan of Action needs to establish linkages with priority communicable diseases control programmes at the national, regional/state and district levels. This will coordinate the diverse strategies required to deal with the various likely scenarios, for example patients who migrate temporarily or permanently, whilst receiving TB treatment and patients who migrate after diagnosis etc. The strategies would include creation of a cross-border referral system in order to promote “access to treatment” and ensure availability of drugs from health facilities of the peripheral border areas.
- Wherever the community shares common language and culture, it is important to standardize the IEC materials for better access to information and awareness raising of the community at large.
- To enhance local partnerships and collaboration, the cross-border initiative needs to utilise all resources available at the border areas including non-government and private sector services who are contributing to communicable disease control activities.

## **5. BROAD ACTIVITIES AT BORDER AREAS**

### **5.1 Situation Analysis**

Annex 2 gives the district profile of the five project districts, available infrastructure, status of the four priority communicable diseases and their control status. A review will need to be carried out to assess all available health services and providers, their capacity and the available means for cross-border communication and control along the border.

Five primary health centres in East Champaran District, Bihar, India border the districts of Bara and Rautahat in Nepal. Similarly three health posts of Bara and two of Rautahat are located along India-Nepal border. Some of

hospitals like the Duncan Hospital in Raxaul, India and the general hospital in Birgunj and NGO facilities are located near the border. These institutions are to be involved in the implementation of cross-border disease control activities, in addition to the district level programme officers for HIV/AIDS, TB, Malaria/Kala-azar.

### ***HIV/AIDS***

Trade routes with truckers halting points are located at various Nepal/India crossings. This migratory population is highly vulnerable to HIV infection. Active co-ordination between the cross-border districts is required for the implementation of HIV/AIDS control activities in these areas. Involvement of those NGOs who already work and collaborate across the Indian-Nepali border have been identified for their potential inputs into the pilot projects, such as supply of condoms, treatment of STIs and joint IEC activities.

### ***Tuberculosis***

The DOTS strategy for TB control is being implemented in Nepal since 1998. Lakhimpur Kheri (Uttar Pradesh) has initiated the process of the implementation of the Revised National Tuberculosis Control Programme while RNTCP is planned to be implemented from 2nd October, 2002 in East Champaran district of Bihar. Microscopic centres and TB Units need to be opened first in border PHCs. A referral card on the lines of the pulmonary TB case transfer system is needed for patients who cross the border seeking treatment. As highlighted previously, treatment regimens used in India and Nepal are not the same. The regimen to be provided to patients who cross their national border needs as far as possible to follow the regimen prescribed in the patient's own country.

### ***Malaria***

The district cluster constituted by Lakhimpur Kheri district, Uttar Pradesh, India and Kailali district, Nepal are both terai (foot hill) areas with high malaria transmission potential, requiring the synchronization of vector control and development of a referral system for the management of cross-border

patients, including severe or complicated cases. About 20% of malaria cases of the Lakhimpur district are from three border Primary Health Centres. An epidemic response mechanism needs to be developed collaboratively by the two districts, keeping in view the epidemic potential on either side of the international border.

### ***Kala-azar***

The border area of northern Bihar, India, with the south-eastern area of Nepal is a flood prone area with alluvial soil, conducive to the breeding of the sand fly (*P. argentipes*), the vector of Kala-azar. Hence East Champaran district of India and Bara and Rautahat districts of Nepal have a common problem Kala-azar. Nepal has available the facility for rapid diagnosis of Kala-azar by using the K-39 kit. This facility should be available to potential cases of Kala-azar from India. Case management and intervention programmes need to be strengthened in all the five districts.

Vector control activities in relation to kala-azar and malaria are not synchronized. Based on data on seasonality of these diseases and of the known vectors, it is suggested that indoor residual insecticidal spraying operations are synchronized during the pre and post monsoon seasons.

## **5.2 Advocacy and Co-ordination** (*Annex 3, Tables 1 and 2*)

The District level nodal points will be responsible for implementation of all the components of the cross-border disease control project. The respective nodal point officer will have responsibility for:

- (1) Co-ordination between the district level programme officers for HIV/AIDS, TB, Malaria and Kala-azar.
- (2) Training of district staff involved in cross-border disease control activities;
- (3) Act as Secretary to the District Co-ordination Committee;
- (4) Compilation of the quarterly reports for exchange of information with their counterpart in the cross-border district; and

- (5) Participate and lead the team in the 6-monthly / yearly cross-border meetings in the neighbouring district. These meetings will be organised in the two countries on an alternative basis.

The State level nodal points will provide administrative support to their respective District nodal points and assist in the strengthening of all disease control programmes in the district.

One officer or society has to be nominated by the Government for the smooth flow of funds and inputs from outside agencies

The constitution of such focal points and committees will form the basis to implement the programme on cross-border control of AIDS, TB, Malaria and Kala-azar.

Recommendations with respect to above area of work were made in a consensus building meeting between India and Nepal, held at Birgunj, Nepal, 26-27 February, 2002.

### ***Establishing information exchange mechanism***

Establishment of information exchange between the adjacent trans- border districts of India and Nepal is an important activity in the cross-border disease control of HIV/AIDS, TB, Malaria and Kala-azar.

This activity has the following components

- (1) Exchange of quarterly reports in a simple and precise format between the border districts by post and fax. The guidelines and the format for exchange of the information are given separately. In the case of an epidemic of any communicable disease, the information is to be exchanged urgently by telephone;

6-monthly inter-district meetings will be held alternatively in India and Nepal. This meeting will review the disease control programme of all four diseases with special reference to cross-border disease control. Strengths and weaknesses of the programme will be identified, and recommendations will be made to improve

programme management and to strengthen the cross-border disease control process.

- (2) An intercountry meeting will be held at the end of each year to review progress of the cross-border disease control programme, and make recommendations for the strengthening and expansion of the programme to other districts, as well as to recommend inclusion of other diseases in the control activities if deemed appropriate.

### **5.3 Capacity Building** (*Annex 3, Table 3*)

Capacity building deals with the training on the integrated control of HIV/AIDS, TB, Malaria and Kala-azar and on the mechanism of information exchange on cross-border disease control for these four priority communicable diseases.

Training materials will be prepared, based on existing technical and operational guidelines on integrated disease control. This training activity is planned to be carried out during 2002.

Core trainers from each of five project districts and other regional staff from Lucknow, Patna and Kathmandu will undergo training on cross-border control of priority diseases. These core-trainers will then train the district level programme officers for HIV/AIDS, TB, Malaria/Kala-azar, medical officers from health facilities near the respective borders, superintendents of selected primary health centres and basic health units and identified medical officers from hospitals, staff from NGOs etc. The duration of this training will be three days. Sixty officers from Nepal (20 participants from each of the three project districts, trained in three batches) and 80 trainees from India in four batches of 20 (two batches from Lakhimpur Kheri and two batches from East Champaran) will be trained. Thus a total of 140 trainees are to be trained in six batches. This training programme will be reviewed after six months. If required, additional staff will be trained during 2003.

Other international and bilateral agencies working in border areas will also be involved in the training, with their field staff being trained.

#### **5.4 Programme Implementation, Monitoring and Evaluation** *(Annex 3, Tables 4 and 5)*

Specific disease control programmes for HIV/AIDS, TB and Malaria are in operation in both countries and it is envisaged that all components of programme implementation will be strengthened in the project districts with particular emphasis to the primary health centres and health posts close to the border. Services for TB, syndromic management of STIs, care and support for AIDS patients, and the diagnosis and treatment of Malaria and Kala-azar will all be available for patients from across the border.

Institutions, hospitals and treatment centres have been identified in the five districts, where cross-border patients of malaria (including severe and complicated cases), TB and STIs can be treated and a list of such facilities has been given to the respective border districts.

A referral system for TB patients along similar lines of “transfer in and out” followed under the DOTS programme will be used for identification, and referral cards will be provided to cross-border patients of TB in order for a seamless continuation of their treatment.

Synchronization of vector control of Malaria and Kala-azar will be carried out on the basis of seasonality of the disease, vectors bionomics and operational feasibility. It was agreed in consensus building meeting to reschedule the indoor residual insecticidal spraying operation to during the pre and post monsoon seasons. Another vector control measure to be undertaken is the promotion of insecticide treated bed nets in border primary health centres and basic health posts.

Condom promotion for HIV prevention will be carried out, with the active involvement of NGOs, at selected entry points, such as truckers halting points. Families living in the border villages of Bara and Rauhatat, Nepal can be covered during the Health Awareness Campaign when carried out by Indian districts. Common IEC packages will be developed for HIV/AIDS, STIs and TB keeping in view the socio-cultural situation on either side of the border. Community involvement on both sides of the border is also essential for the control of vector borne diseases. Panchayat or local bodies from border villages will create a committee for environmental management. The indicators and targets given below will be used to monitor the programme implementation. In addition to the programme specific monitoring and evaluation indicators. Reports on cross-border disease control will be analyzed and disseminated to district, state and national health authorities. Periodic site

visits will be made by National and WHO personnel to provide supportive supervision. An expert group will carry out an independent appraisal at the end of 2003 prior to the inter-country meeting. All the programme activities and appraisal findings will be documented and will form the basis for further expansion of the cross-border disease control activities.

## 6. INDICATORS AND TARGETS

The programme for cross-border control of communicable diseases is to follow a process based approach during the initial stages of its implementation. It is important to analyse the strengths and weaknesses both quantitatively and qualitatively. Such information and experiences are to be shared periodically among the selected cross-border pilot district clusters to attain and sustain the goals and objectives of the programme. Process indicators and targets have been prepared according to the strategies and approaches for the implementation and are given separately.

All four countries have national control programmes for HIV/AIDS, TB, Malaria and Kala-azar. The indicators and targets for monitoring the implementation activities are incorporated within the disease control programme for each of the four diseases. However, minimum and common indicators and targets as per analysis of the available epidemiological data, control status and field visits to eleven pilot districts are given below.

### *Process indicators*

- Situation analysis 2nd quarter 2002  
in 11 districts
- Operational Guidelines -ditto-
- Finalization of Joint Action Plan -dito-
- Identification of nodal points  
and committees -ditto-
- Flow of funds as per plan 3<sup>rd</sup> quarter 2002
- Programme implementation
  - (a) strengthening of different components in the district
  - (b) cross-border collaboration exchange of information

### **Disease specific outcome indicators**

#### **HIV/AIDS**

- Increasing level of awareness and behaviour change among long distance truckers and commercial sex workers (CSWs) at identified border points.
- 100% condom use by population with high risk behaviour.
- Syndromic management of STI - availability, accessibility and utilization

#### **Malaria**

Transmission dynamics of malaria being a local and focal phenomena, the indicators and targets should be for limited areas, for example a health centre or border village. This will be the basis for synchronization of vector control on either side of the border. All four countries have adopted the global strategy on malaria control with further strengthening under Roll Back Malaria initiatives. Eco-epidemiological study and an assessment of the control status of malaria in the eleven pilot districts pointed out that any one or more of the following indicators and targets may be used as per goals, objectives, strategies and approaches adopted.

#### **Early case detection (rapid diagnosis) and prompt treatment**

- Reduction in morbidity with no or minimum mortality;
- Proportion of *P. falciparum* <50% in known *P. falciparum* areas;
- Proportion of severe and complicated malaria cases to total falciparum cases <10%;
- Slide Positivity Rate (sample size >50) of <10% in clinical/passive surveillance setting and <2% in areas of active surveillance, and
- Establishment of epidemic response mechanism – prediction, early detection and control of epidemics with rapid communication to cross-border district.

#### **Intervention measures**

- Population covered with Insecticide Treated Bed Nets - increase in coverage by about 10% of the population every year; and
- High risk approach for intensive intervention (selective indoor residual insecticide spraying etc.).

#### **Qualitative Indicators**

- Enhanced partnerships to improve equity in health for sustainable progress and development;
- Community involvement in programme planning, implementation and evaluation;
- Inter-sectoral approach including environment management.

#### **Tuberculosis**

By adoption of DOTS strategy for TB control:

- Cure Rate of new smear positive cases > 85%
- New Sputum positive detection rate > 70%
- Sputum conversion rate of > 90% after initial intensive phase of treatment

Evaluation of surveillance parameters may be used to monitor multi-disease surveillance and exchange of information between the cross-border districts.





## Annex 2

### SITUATION OF COMMUNICABLE DISEASES AND THEIR CONTROL IN THE BORDER DISTRICTS OF INDIA AND NEPAL

#### India

##### *East Champaran District (Bihar)*

The district has a population of 3.9 million in 27 Blocks with 1634 villages and 1 town. In addition to the District Hospital, there are 3 referral hospitals, 46 PHCs and 315 Sub-centres. Five PHCs (Raxaul, Adhapur, Chauradanu, Ghorasn and Dhanka) are located along the border with Nepal. Population covered by these PHCs is 0.9 million. Out of 944 cases of Kala-azar reported from the district in 2000, 32 cases were from those PHCs along the border. Kala-azar cases are diagnosed by clinical features and aldehyde test at the PHC level, and parasitological examination at the district hospital level. First line treatment is with sodium antimony gluconate (SAG), with Pentamidine being given to unresponsive cases. Amphotericin B is the third line regimen. DDT spraying is used for vector control. Malaria is not a problem in the district with just 1 case of *P. vivax* found out of 2555 slides examined in 2000.

36 HIV positive persons have up to 2001 been found. In June 2001, the Family Health Awareness Campaign was carried out in June 2001, with 16,833 cases of STI detected and treated. Raxaul, bordering Nepal, is the major truck-halting place for trade between the two countries. About 2000 trucks cross daily from Raxaul (India) to Birgunj (Nepal). Birganj-Raxaul is also one of the exit points for trafficking of girls from Nepal to India. CSWs and truckers play a major role in HIV / STI transmission. The Red Cross Blood Bank located in the district hospital is carrying out HIV screening of blood donors and the referred patients.

The RNTCP programme for TB control is in the process of being implemented in the district.

### **Lakhimpur Kheri District (Uttar Pradesh)**

The district has a population of 3.2 million in 1697 villages and 10 towns. In addition to two district hospitals, there are 20 Block PHCs and CHCs and 62 mini PHCs. Three mini PHCs (Gourifanta, Khajuria and Chandan Chowki) border Kailali district of Nepal. The terai region is endemic for malaria. It has similar eco-epidemiological characteristics to Kailali with respect of malaria transmission. Malaria data of the district and border area is presented in the table below:

**Table:** Malaria cases in the district and in the border areas (1997-2000)

<b>Year</b>	<b>Malaria cases in the district (<i>P. falciparum</i>)</b>	<b>Malaria cases in the border areas (<i>P. falciparum</i>)</b>
1997	1085 (35)	113 (8)
1998	657 (11)	115 (9)
1999	1136 (92)	142 (32)
2000	911 (149)	182 (48)

Microscopic facilities are available in all PHCs, with chloroquine and primaquine used for treatment of cases. Synthetic pyrethroid spray is used for vector control.

DOTS strategies for TB control are in the process of being started. (? WHAT IS MEANT HERE)

No HIV positive individuals have been reported. The Family Health Awareness Campaign in 2001 detected and treated 2327 symptomatic cases of STIs. A voluntary counseling and HIV testing centre is being opened in the district hospital.

### **Nepal**

#### **Bara District**

The district has a population of 0.5 million in 98 villages and 1 town. There are three PHCs and 11 health posts. Of these 11 health posts, 3 (Hardia,

Pheta and Shivronghar) are located along the border with East Champaran, Bihar. The number of Kala-azar cases diagnosed in the district during 1998, 1999 and 2000 were 24, 74 and 153 respectively. K39 Dipsticks, supplied from VBDRTC, Hetauda, are being used for diagnosis. Cases are treated with SAG and Amphoterecin B. For vector control, synthetic pyrethroid (Deltamethrin) spraying is used on a limited scale.

There were 28 cases of malaria during 1998-2000, with 1 *P. falciparum*. Microscopic facilities are available for diagnosis. Chloroquine and primaquine are used for treatment and synthetic pyrethroid for vector control.

DOTS for TB control is in operation in the district. The German-Nepal TB project is assisting the TB control programme in 3 districts including Bara. Evaluation indicators during 2000 shows: case finding rate 89%; smear conversion rate 88.6%, cure rate 82.6% and DOTS coverage rate up to 80%.

No precise data on HIV/AIDS and STDs were available from the district. There are no blood testing and transfusion facilities in the district. Blood units are obtained from the nearby town of Birgunj, in case of emergency need.

#### ***Kailali District***

The district has a population of 0.6 million in 846 villages. It is a malaria endemic area, reporting around 300 cases every year of which most are *P. Vivax*. Almost 50% cases are imported from the adjoining districts of India. Blood slides collected from the periphery reach the district hospital in Kailali for examination after about one month. Chloroquine is the drug of choice, no study has been conducted to detect the level of drug resistance. Currently synthetic pyrethroid spraying is done in selected villages with an approximate population of 25,000.

During the last year, only three cases of Kala-azar were detected in the district hospital and all of them were imported from India. The drug of choice for treatment of Kala-azar is SAG.

The entire district is covered under the DOTS programme, sputum microscopy is the first line method for diagnosis and is available only at the district hospital. A total of 126 cases were detected in 2000, with a cure rate of 86%. The first two month intensive treatment is given under the supervision

of the Health Assistants, while para-medical workers supervise the remaining 6 month's drug intake. The rate of defaulters for treatment is high considered to be as patients do not complete the full treatment. Non-compliance of a full course of treatment is reportedly very high among patients from the adjoining border villages of India.

People, and especially the males, living in the hilly areas of Kailali migrate to India to work as labourers in places such as Delhi, Surat and Mumbai. These workers return to their homes once a year. As these people prior to transiting further stay a few days in Kailali, a sizeable number of CSWs have settled down in the district headquarters. Nepalgarj is an important exit point for trafficking of girls from Nepal to India. HIV testing facilities are available in two places of the district, the District Hospital and Tikapur PHC where tests are also carried out among blood donors. Three local NGOs are entrusted with the responsibility of health education, condom promotion etc.

#### **Rautahat District**

The district has a population of 0.6 million in 96 villages and 1 town. There are 3 PHCs, 9 health posts and 1 sub-health post. Out of 9 health posts, 2 (Dumaria and Piparia) are located along the border with East Champaran district. Number of Kala-azar cases in 1997, 1998, 1999 and 2000 were 76, 26, 26 and 59 respectively.

Malaria cases during 1998, 1999 and 2000 were 6 (P.f.1), 419 (Pf. 7), and 255 (P.f.10) respectively. Microscopic facilities are available for diagnosis. Chloroquine and primaquine are used for treatment of malaria cases. Synthetic pyrethroid spray is used for vector control.

DOTS has been in operation in the district since 1997. Some of the interior places (25% of the population) are yet to be brought under DOTS programme. Out of 674 cases of TB treated during 1999 and 2000, 40 cases were reportedly from India.

No precise data on HIV/AIDS and STDs were available from the district. There are no blood testing and transfusion facilities in the district. Blood units are obtained from the nearby town of Birgunj.

### **Key Constraints**

- Rapid Diagnostic Kits (Dipsticks) for malaria are not available and are needed in the hospital setting for diagnosis of severe and complicated malaria during epidemics and in the interior areas where no laboratory facilities are available.
- K-39 Dipsticks for diagnosis for Kala-azar is available through the Environmental Health Project (EHP) to a limited extent in the pilot districts of Nepal but is not available in East Champaran district in Bihar.
- Some of the entry points between India and Nepal are important trade routes (truckers halting places, e.g. Raxaul in East Champaran) which have increased vulnerability for HIV/AIDS/STIs transmission.
- DOTS programme is in operation in Nepal. In India both the districts, East Champaran in Bihar and Lakhimpur Kheri in Uttar Pradesh are preparing to start DOTS programme for TB control.











## **Annex 4**

### **PROGRAMME MANAGEMENT**

#### **1. Sharing of Information – General Guidelines**

##### **The Problem**

Communicable diseases like Malaria, Kala-azar, Tuberculosis and HIV/AIDS are widely prevalent in developing countries including South-East Asia. These diseases are of major public health concern, for which specific disease prevention and control programmes being carried out in the respective countries. International borders constitute a specific epidemiological paradigm for these diseases due to increase in migration for economic reasons (trade, tourism and employment), education, pilgrimage. Eco-epidemiological conditions for transmission of vector borne diseases are often identical on either side of the border. Trafficking of girls is a socio-economic problem and as such poses a serious threat for spreading of HIV. Health services remain weak in these peripheral areas.

Some of the examples of special problems related to the cross-border potential for communicable diseases transmission and their control are given below.

Terai area of southern Nepal and northern Uttar Pradesh-India constitute a single eco-epidemiological paradigm for transmission potential of malaria, requiring synchronization of intervention measures. Bihar-India and Nepal border have kala-azar problem. Nepal & India has some identified areas leading to increase in vulnerability to HIV (trade route & truckers halting place at Raxual in East Champaran-Bihar and Birgunj-Nepal). Therefore, the cluster of districts across the international border has to be prepared for agreement on the coherent technical policies relating to control of priority communicable diseases (Malaria, Kala-azar, Tuberculosis and HIV/AIDS) and establish effective cross-border collaboration; identification of area specific intervention measures related to the prevention and control of communicable diseases in order to reduce the disease burden and improve the health status

of the people, in general; and synchronization the disease control strategies and implementation of integrated approaches for priority communicable diseases and multi-disease surveillance mechanism in the cross-border districts clusters.

### **Approaches**

While periodic meetings and interactions help in exchange of information, sharing of experiences and learning of positive points for improvement of the programmes, the periodic exchange of reports is essential for cross-border collaboration.

All the countries are having built-in surveillance system with respect to the diseases control programmes. Such reporting mechanism in each country/district is not required to be changed or modified, but should be strengthened as such to make it meaningful to support appropriate action to control the diseases. Such strength will not only augment the strength of the existing programmes, but also make a sound basis for the exchange of information across border.

Cross-border control of priority communicable diseases envisages regular exchange of information on the four diseases namely malaria, kala-azar, tuberculosis, HIV/AIDS/STI, and epidemic/outbreak (as and when it occurs). The frequency of sending the reports across border would be quarterly, in addition to 6 monthly meeting and annual review when all the other aspects of the control programme on these diseases will be exchanged. This is to ensure that participating district health authorities from across the border become fully aware about the different component of the programme implementation. Information to be exchanged includes status of drug resistance to micro-organism (P.f. resistance); vector resistance to insecticides, indoor insecticide spray schedule, position regarding the vacancy of health staff especially in border areas and future plans to overcome the constraints.

Following will illustrate about the areas of co-operation with out any additional resources.

Regional Director malaria at Siliguri, W. Bengal, India is compiling separate information on malaria pertaining to the border areas of Japaiguri

and Darjeeling district (annex1). This information should be sent to district focal point and shared with programme officers of Chukha and Samtshi districts of Bhutan. Similarly General Hospital at Pheuntsholing keeps separate records for non-nationals treated for malaria and tuberculosis. This data should also be passed on to the Chief Medical and Health Officer Jalpaiguri and Darjeeling. The participating districts may learn from the experience of each other; for example a system of prediction, early detection and response to epidemics practiced in a district (Jalpaiguri) may be studied with the objective of improving the system in Chukha and Samtshi districts in Bhutan.

Similar examples and experiences from Indo-Nepal border pilot districts and Bangladesh-India pilot districts may be helpful.

## **Process**

### *Cross-border Reports*

It is not necessary to send all the monthly/ quarterly reports to the participating district of neighbouring country. District level focal point i.e., Chief Health Officer is to compile a report on simple and precise format for onward transmission to the neighbouring district.

The following should be the characteristics of this report.

It will be a consolidated report on malaria, kala-azar, tuberculosis, HIV/AIDS/STI.

The data will be taken from the existing programme reports.

(1) The report will have the following broad components.

- Case management information:
  - Severe & complicated malaria.
  - Tuberculosis
  - STI&AIDS
  - Morbidity profile of the district on malaria, kala-azar, STI, HIV, AIDS
  - Treatment policy and referral cards

- Intervention measures for control:
  - Vector control
  - Condom promotion
  - I.E.C.
- Information on disease outbreak (if any).
- Any other information related cross-border disease control.
- Action expected or required from the district focal point across the border.

### **Reporting units on non-nationals treated**

The district focal point, district co-ordination committee and working group are to identify the institutions in the district, who can maintain and compile separate records of non-national patients treated. These institutions may be hospitals (near border), Health Centres along the border. Such institutions may be few but should be carefully selected centres / hospitals which will act as sentinel sites to give an idea of treatment offered to cross-border cases and also trend of patients availing of such services over a period of time. This list of institutions should be on constant review, as it may be necessary to identify more of such institutes and delete the existing facilities

A sample format is given below.

### **2. Guidelines for filling the reporting format**

- The National/ State focal point has to authorize the Chief Health Officer of the district for exchange of information as envisaged under cross-border control of communicable diseases.
- Similar format has to be used by the participating districts.
- The information to be filled in is simple and self explanatory. However following points may be noted.

**Block I** District who is sending the report and the one who will receive the same.

The frequency of reporting will be decided by the co-ordination committee of both the districts. It may be emphasized here that quarterly reporting is the minimum requirement. As mentioned in pre page the co-ordination committee has to decide on reporting unit i.e. who can maintain and send the number of non-nationals treated in their routine records and reports.

**Block II** In this block the total cases of malaria, kala-azar, tuberculosis, STD, HIV, AIDS are to be recorded separately for the district and for the identified reporting units separately. In case of malaria give separate data on P. falciparum cases, and Severe and Complicated Malaria. In control programmes i.e. DOTS strategy for TB provide the set indicators as per the programme.

**Block III** This pertains to the information on disease epidemic or natural disaster or any other public health emergency. A separate report will be appreciated.

**Block IV & V** are open-ended and may contain any relevant information. District co ordination committee and the district nodal officer will guide from time to time regarding the contents and frequency of this kind of information exchange.