

**Indigenous Peoples Development Plan (IPDP)  
India: Vector Borne Diseases Project**

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**Chapter 1**

**Introduction**

Tribal communities bear a disproportionate burden of vector borne diseases. For example, although tribals constitute only about 8% of the population, they account for about 30% of all cases of malaria, more than 60% of P. Falciparum, and as much as 50% of the mortality associated with malaria. National Family Health Survey – 3 (2005-2006) data indicates that health outcomes for tribals are poor compared to the general population, and even when compared to Scheduled Castes. For example, a larger proportion of tribal women have a below-normal BMI as compared to their counterparts in the general population (46.6% versus 33%).

<b>Indicator</b>	<b>India Average</b>	<b>Scheduled Tribe</b>	<b>Scheduled Caste</b>
Women age 20-24 married by age 18 (%)	44.5	55.5	52.7
Total Fertility Rate	2.68	3.12	2.92
Women age 15-49 using any method of contraception	56.3	48.0	55.0
Women receiving 3 ANC visits during last pregnancy (%)	50.7	40.2	44.3
Institutional birth (%)	40.7	19.6	35.1
Children 12-23 months fully immunized (%)	43.5	31.4	39.7
Women 15-49 whose BMI is below normal (%)	33	46.6	39.5
Children 6-35 months who are anemic (%)	79.2	85.1	82.3
Women 15-49 who have heard of AIDS (%)	57	34.6	50.9

Source: NFHS 3 (2005-06)

Not only do tribals have poorer health outcomes, their access to health services is also significantly worse: less than 20% of tribal women give birth in an institution as compared to 40% of women in the general population and 35% of Scheduled Caste women; and only about 31% of tribal children are fully immunized as compared to about 44% in the general population and 40% among Scheduled Castes. It is fair to conclude that their access to other health services would be equally poor, including to the services aiming to prevent and treat vector borne diseases.

In addition, tribals face other economic and social challenges when attempting to avail of health services: poverty, low levels of education, poor access to medical care, and isolation from the mainstream economy are the norm. Tribal communities have distinct languages, cultural

behaviors and mistrust of outsiders; and their knowledge of disease prevention and treatment is limited. A sample survey<sup>1</sup> of K.A.P. about malaria carried out in a tribal area of Bastar district, which is a hyper-endemic area for malaria, predominantly *P.falciparum*, showed that understanding about the problem of malaria was poor amongst the tribals - only about 50% (ranging from 30% to 60%) of the respondents were aware about cause and signs and symptoms of malaria, breeding & resting habit of mosquitoes, usefulness of insecticidal spray and ill effect of mud plastering following residual spraying. Only 46% of the respondents were aware that malaria is caused by mosquito bite, the rest believed that it is caused by the wrath of God (20%), witchcraft (15%), strolling in a forested area (4%), eating stale food (2%), drinking bad water (1%), and about 10% of tribal people were ignorant about the mode of disease transmission. 50% of respondents were cognizant about the symptoms of malaria and the need to get their blood examined in case of fever. However, 50% revealed that in case of fever they would prefer to obtain treatment from tribal healers (20%), practice witchcraft (15%), use wild herbs (8%), use chili (4%), or turmeric powder (3%). 58% of the respondents were aware that mosquitoes rested in human dwellings, 30% believed that they lived in cattle sheds and jungles, and the rest did not know. The majority of respondents did not know the breeding place of mosquitoes. 60% were aware that spraying insecticides in the village was intended to kill mosquitoes, 20% believed that it killed house flies, and the rest did not know. 30% knew that mud plastering should not be done after insecticidal spraying; however, about 80% of the population did mud plaster their houses within a week of spray. 7% used smoke to drive away the mosquitoes or used Kuranji oil as repellent to prevent mosquito bites. Mosquito bednets or any other type of repellent were not used.

It is in this context that the VBDCP has developed and will implement a separate Indigenous Peoples Development Plan (IPDP). IPDP is necessary to improve the participation of tribal communities in sharing benefits and address any unintended effects that may increase their vulnerability.

## **Background**

Government of India (GOI) is committed to reducing the burden of vector borne diseases, and has pledged in the National Health Policy (NHP - 2002) to reduce mortality due to malaria, dengue and Japanese encephalitis by 50% by 2010; eliminate kala-azar by year 2010; and eliminate lymphatic filariasis by year 2015. This is in keeping with the Millennium Development Goal of halting and reversing the incidence of malaria by year 2015. In order to achieve this, GOI has undertaken under the National Rural Health Mission (NRHM) launched in April 2005 to (i) augment and ensure appropriate public health focus, peoples' orientation and ownership of public health programs; (ii) encourage community-based approaches to disease control; (ii) promote public-private partnership in service provision; (iv) involve local bodies and Panchayati Raj Institutions (PRIs); and (v) promote gender equity. These initiatives are intended to improve access to primary health care, thereby impacting the prevention and control of communicable diseases including vector borne diseases, reduction of infant mortality rate and maternal mortality ratio by 50% by year 2012 and promotion of healthy life styles.

GOI is planning a Vector Borne Disease Control Project (VBDCP), to be funded by the World Bank, as a nation-wide program within the overall framework of the NRHM over a period of five

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<sup>1</sup> Knowledge, Attitude and Beliefs about Malaria in a Tribal Area of Bastar District (Madhya Pradesh), Division of Medical Entomology, National Institute of Communicable Diseases, Delhi – Indian Journal of Public Health, 1993 Oct-Dec;37(4):129-32.

years. The project development objective is to: (a) increase the number of people benefiting from effective prevention, diagnosis and treatment services for malaria and other vector-borne diseases; and (b) strengthen central and state capacities for evidence based policy development, strategic planning, and program management for effective control of vector-borne diseases. The project would have two components: (i) Improving Access and Use of Services for Control of Malaria and Elimination of Kala-azar, and (ii) Policy and Strategy Development, Capacity Building and Monitoring and Evaluation.

It is foreseen that the implementation of the project will not have any adverse social impact on any group including those who belong to Scheduled Tribes. The project does not involve any land acquisition, use of forests or rehabilitation of land. All infrastructure development under the project will take place within the existing government activities. A Social and Beneficiary Assessment (SABA) of groups who live in predominantly tribal areas has been undertaken with a view to facilitate and ensure their free, prior and informed participation all through the project cycle and also to have a clearer understanding of various social, economic, cultural and health factors that help or hinder their accessing various components and activities under the project. The IPDP, as well as the Indigenous Peoples Planning Framework (IPPF) have been prepared based on the findings of the SABA, and these will form the basis for the preparation of district-wise plans for indigenous peoples access to VBDCP.

### **Coverage of the IPDP**

The tribal population of the country, as per the 2001 Census, is 84.3 million, constituting 8.2% of the total population. The population of tribes had grown at the rate of 24.45% during the period 1991 -2001. This is slightly more than the decadal growth rate of 22.66% for the nation as a whole. More than half the Scheduled Tribe (ST) population is concentrated in the States of Madhya Pradesh, Chhattisgarh, Maharashtra, Orissa, Jharkhand and Gujarat.

The terms 'indigenous peoples', indigenous ethnic minorities, tribal groups, and 'scheduled tribes' describe social groups with a social and cultural identity distinct from the dominant society that makes them vulnerable to being disadvantaged in the development process. By definition, IP refers to peoples living in an area within a nation-state, prior to the formation of a nation-state, but who do not identify with the dominant nation. This group has social, cultural, economic, and political traditions and institutions distinct from the mainstream or dominant society and culture. In India, IP with similar cultural characteristics are known as 'Adivasis' in Hindi and are recognized as STs.

As per the Census 2001, STs constitute roughly 8.2% of India's total population and the Indian Constitution has recognized about 573 communities as STs, which confers entitlements to affirmative action programs. However, the majority of tribal communities continue to be vulnerable even today in comparison to the general population and this is reflected in the socio economic realities and problems of these groups; 45.86% STs in rural areas having been categorized as living below the poverty line (BPL) and 34.75% in urban areas in 1999 -2000.

The Fifth Schedule of the Indian Constitution designates 'Scheduled Areas' where more than 50% of the population is tribal. The Fifth Schedule covers Tribal areas in 9 states of India namely Andhra Pradesh, Jharkhand, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan. The notified tribal districts of the country under Fifth

Schedule are indicated below. It is noted that Bihar, Karnataka and West Bengal are not covered under this schedule.<sup>2</sup>

#### Fifth Schedule Areas

State	Areas
Andhra Pradesh	Visakhapatnam, East Godavari, West Godavari, Adilabad, Srikakulam, Vizianagaram, Mahboobnagar, Prakasam (only some mandals are scheduled mandals)
Jharkhand	Dumka, Godda, Deogarh, Sahabgunj, Pakur, Ranchi, Singhbhum (East & West), Gumla, Simdega, Lohardaga, Palamu, Garwa, (some districts are only partly tribal blocks)
Chhattisgarh	Sarbhuja, Bastar, Raigad, Raipur, Rajnandgaon, Durg, Bilaspur, Sehdol, Chindwada, Kanker
Himachal Pradesh	Lahaul and Spiti districts, Kinnaur, Pangi tehsil and Bharmour sub-tehsil in Chamba district
Madhya Pradesh	Jhabua, Mandla, Dhar, Khargone, East Nimar (khandwa), Sailana tehsil in Ratlam district, Betul, Seoni, Balaghat, Morena
Gujarat	Surat, Bharuch, Dangs, Valsad, Panchmahl, Sadodara, Sabarkanta (parts of these districts only)
Maharashtra	Thane, Nasik, Dhule, Ahmednagar, Pune, Nanded, Amravati, Yavatmal, Gadchiroli, Chandrapur (parts of these districts only)
Orissa	Mayurbhanj, Sundargarh, Koraput (fully scheduled area in these three districts), Raigada, Keonjhar, Sambalpur, Baudakondmals, Ganjam, Kalahandi, Bolangir, Balasor (parts of these districts only)
Rajasthan	Banswara, Dungarpur (fully tribal districts), Udaipur, Chittaurgarh, Siroi (partly tribal areas)

Of all reported malaria cases in India during 2005, about 90% were in 11 states: Orissa, 22%; Jharkhand, 11%; Chhattisgarh, 10%; West Bengal, 10%; Gujarat, 10%; Madhya Pradesh, 6%; Uttar Pradesh, 6%; Karnataka, 5%; Assam, 4%; Rajasthan, 3% and Maharashtra, 3%. Practically all cases of Kala-azar reported in 2005 are from three states: Bihar, 70%; Jharkhand, 21%; and West Bengal, 9%. The 200 districts to be covered by the project include all of the above districts, as well as additional districts in these and other states with high endemicity of malaria and kala-azar. These 200 districts are in addition to the districts already covered by the GFATM.

<sup>2</sup> The North Eastern states such as Assam, Meghalaya, Tripura and Mizoram are covered by the Sixth Schedule and not included in the Fifth schedule.

## Chapter 2

### Issues in Tribal Health

The SABA identified several important constraints to health seeking behavior amongst tribals. These include:

#### Inadequate Access to Services

There are delays that occur at various stages in the process of diagnosis and treatment of VBDs. The first is the delay in accessing appropriate care for the treatment of malaria. In many places fever cases do not reach a proper health care facility because of access problems. The patient will often be treated by a less than fully qualified practitioner who does not have access to chloroquine or other drugs for VBDs. The second delay is with regard to diagnosis of VBDs. This has to be done by a trained laboratory technician. When there is no facility for blood smear collection and transportation to the laboratory, delays occur. The third delay is in the commencement of radical treatment. This delay is due to factors like non-availability of personnel. Even after the blood smear is found to be positive, radical treatment is delayed because of delay in communicating to the patient or non-availability of medicine at the local level. In order to reduce the mortality due to malaria all these delays will have to be reduced to the minimum. The stipulation of radical treatment within 72 hours will be a challenge in the tribal setting.

Inaccessibility of health services due to difficult terrain or economic costs of seeking care are a major cause for the outbreak of malaria epidemics in tribal areas. The SABA assessed the various health facilities or providers available and accessed by tribals, their physical distance from the patients and the preferences of the patients while choosing between various services. It was found that tribals ranked government hospitals and health centers first as a source of care due to easy accessibility, availability of free services, as well as the belief that allopathic medicines work 'quickly' and are thus effective. Malaria workers, pharmacists and village doctors were ranked second to fourth due to their availability. Female health workers and AWWs came next, followed by mission hospitals, vaidyas, and faith healers. Due to the high cost of treatment, private doctors were ranked the lowest. The distance and travel time between the hamlets and the testing centres was also an issue in certain sample villages, causing delay in collecting, transporting and testing the slides.

The focus group discussions with tribal communities undertaken during the survey revealed that, on an average, over one third of the respondents sought treatment of malaria during the first day of the illness while another one third within two days. It was also noted that spending time for treatment of ailments of self or family members means loss of income for the day for tribal communities and unless they are bed-ridden, the diseases are not taken seriously. It was observed that over 20% of respondents did not know the interval between the onset of malaria and taking treatment. Only around 10% of the respondents took traditional medicines for treatment of malaria. It was observed that the tribal communities are not always in favor of spraying inside the houses. Only around 10-15% of the respondents reported usage of nets and meshes in their homes. About 35% of surveyed villages in Madhya Pradesh and 65% of surveyed villages in Chattisgarh reported usage of bed nets provided by Government. The bed nets were provided at a cost to the community households @ Rs 10/- (BPL families) and Rs 20/- (APL families) and free for very poor families. In some villages, tribal communities reported little usage of bed nets. The purchase of bed nets from private sources was also reported. Bed nets were provided by the Forest Department and panchayats, in addition to regular governmental supplies through NVBDCP. Use of mosquito coil was noted to be less prevalent compared to smoke as a means of

prevention of mosquitoes. No method was being used by over 30% of the respondents. Over 20% of the respondents slept outside their homes. There was a direct association between the sleeping habits and the literacy status of the respondents.

The majority of the community members stated that the health workers do not generally visit their homes. A sizeable proportion of the respondents (around 75%) indicated that insecticidal spray was not used in their area during the last one year. Only about 10-15% of the respondents indicated that they had their houses sprayed. Foul smell, respiratory problems and discomfort, lack of confidence in the usefulness of DDT as well as absence of advance information were cited as the reasons for not getting their homes sprayed. Around one third of the respondents indicated that they had their blood slides made with the onset of fever. Significantly, many indicated that they did not know the results of blood slide examination. No respondent could specify the type of parasite – P. Vivax or P.Falciparum. A small percentage of the respondents stated that they use impregnated nets. Majority of them got their nets from the government. A sizeable proportion of respondents claimed that they did not get free or subsidized impregnated nets from the government. A few reported purchasing the nets from private sources. It is found out that only people of the upper class and middle class use bed nets. Malaria workers believe that even if bed nets are freely distributed, unless serious promotional activities are taken up through NGOs, tribals may not use bed nets properly. Ready availability of medicated nets as well as availability of drugs through governmental sources are important given that the average monthly income of majority of respondents in the tribal communities visited was less than Rs 2000. The existing policy of free treatment for Early Detection and Prompt Treatment (EDPT) must be publicized and strictly adhered to.

***Role of NGOs:*** The role of the NGOs is found to be minimal and insignificant in the sample villages covered in Madhya Pradesh and Chhattisgarh as well as in Andhra Pradesh and Orissa. Efforts are being made in Orissa to involve NGOs on a large scale including their association at PHC/DDC/FTD level. Integrated Tribal Development Agency, Andhra Pradesh has deployed four mobile medical clinics to extend VBD related services for isolated areas together with payment of honorarium to community health workers in inaccessible areas. The role of NGOs in anti malaria work is limited to participation in malaria month. There is no significant role observed of NGOs in preventive measures of VBDs like establishing, maintaining and distribution of larvivorous fish. The State Programme officials will need to motivate NGOs to get involved in areas like IEC, and working with volunteers and community and provision of financial resources for civil society engagement should be integrated into the project design. Field based data from the private / NGO sector should be incorporated into the District / State MIS. By and large, provision of VBD related services through hospital/mobile services by NGOs have not taken root in the states under coverage, except to some degree in Andhra Pradesh. There is a significant potential for involvement of mission/faith based hospitals in the prevention and control of VBDs which at present is not extensive.

### **Poor Service Delivery**

***Inadequate Indoor Residual Spraying:*** Focal spraying is done based on incidence. But often spraying is delayed due to lack of money available to pay the spray workers at the PHC level. While indoor residual spraying is undertaken by health officials in some villages, coverage was variable and ranged from 30-80% of households in sample villages. Indoor residual spraying is not regular, and was not undertaken at all in as many as 50% of the villages during the last 1-2 years or more. Further, due to lack of advance communication of residual spraying, many households are not able to avail of spraying when it is undertaken in their village. Instead, tribal households resort to fumigation of neem leaves, bed nets and fogging, temofas/ganbusia spray

and kerosene spray to control mosquito breeding. In addition, when a blood smear is found to be positive in a village, there is no effort to spray immediately. As per the guidelines, 400 square meter surrounding the house where the positive case is identified is to be sprayed. This is not always followed. Further, diagnosis takes more than 3 days and hence the disease can spread to other households. The tribal community members expressed speedier systems and better levels of service.

***Non-Availability of Government Health Workers:*** ANM and/or AWW and/or MLV/Mitanins/MPW were reported to be available in majority of the villages covered under the survey. However, state-level data indicates that there is a shortage of MPWs as compared to the sanctioned strength in all the states included under the project. Overburden of work due to allotment of excess population was cited by most of them as the reason for MPWs to be irregular in their domiciliary visits. During FGDs, it was revealed that MPWs not only collect blood slides but give treatment as well in case of fever. Only a small proportion refers the cases to doctors without giving treatment. Nearly half of the community respondents revealed that MPWs did nothing to educate the people regarding illness (similar situation reported to exist with DDC/FTD holders) and express their need for assistance on this issue. The ANM was reported to visit weekly in some cases but only monthly in others; in some villages, the ANM lived in the village itself. However, several of the villages included in the study reported the absence of a sub-center. In any case, with the caseload of the Reproductive and Child Health (RCH) project being high, it would not be realistic to expect the ANM to contribute significantly to the VBDCP. This causes a backlog of slides at the village level, leading to delays in diagnosis. The proposal to establish additional Fever Treatment Depots (FTDs) in remote/inaccessible areas needs to ensure that they are effective in terms of collection of blood smears, administration of presumptive treatment<sup>3</sup>, impregnation of bed nets, promotion of larvivorous fish etc. FGDs revealed that the tribals did not have a positive perception of the government health workers attitude to the mitigation, treatment and containment of VBDs in their villages. Though the Anganwadi Workers are given malaria drugs, they are not much interested in distributing these drugs because their main function is to take care of maternal and child health care. The PHCs function as dispensaries, where doctors are often appointed on contract basis. They are not actively involved in work related to malaria and other VBDs in the community. The priority programs of the PHC are immunization, family planning and tuberculosis. Only treatment of reported cases takes place at the PHC. Fever clinics and fever detection camps are not regularly planned and conducted, particularly during the monsoon months.

***Inadequate number of laboratory technicians in PHCs:*** Though the position of laboratory technician exists in all the PHCs of sample villages, many positions had not been filled. In many PHCs, the services of the laboratory technician are available only for a few days of the week, as the technician has to take care of two or more PHCs. This also has led to delay in blood smear examination, diagnosis and treatment of malaria. In the absence of laboratory technician, the government may consider supply of rapid diagnostic kits to PHC to maintain the tempo of surveillance. There is currently a 5-7 day gap in some areas between taking of blood smear and reporting of results.

***Ineffective surveillance:*** State data shows that active surveillance work is not effectively being undertaken as it was noted that most of the slides were collected from the patients who visited the

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<sup>3</sup> As per NVBDCP guidelines, every fever case should receive prompt presumptive treatment or in high-risk areas presumptive radical treatment (Treatment Guidelines in accordance with the drug policy of NVBDCP).

sub-centre or PHC. There is a potential to strengthen the network from grassroots to institutions at state to gather information about outbreaks.

### **Lack of Demand for Services**

FGDs with tribal community members conducted in sample villages in Madhya Pradesh and Chhattisgarh reveal that a sizeable fraction of the respondents were not aware of the causes, signs and symptoms of VBDs including malaria, breeding and resting habits of mosquitoes and usefulness of insecticidal spray. Most respondents fever as a symptom of malaria, as well as chills and rigor. Headache, weakness, vomiting, body ache and loss of appetite were also cited as symptoms of malaria. Enlargement of spleen during malaria was not known to the respondents. About 15% had no knowledge about even any one symptom of malaria. In particular, knowledge of the symptoms for other VBDs under the program is poor amongst tribals. Women were less aware of the signs and symptoms of VBDs compared to men; and awareness also varied with educational status. Majority of the respondents were aware that VBDs, including malaria, are spread by mosquitoes. Some respondents attributed spread of VBDs and particularly malaria to drinking contaminated water and contaminated food. Around 15% of the tribal respondents had no knowledge about the method of spread of malaria. The spread of malaria through blood transfusion was not known to the respondents.

Regarding the breeding of mosquitoes, about 50% were aware that mosquitoes lay eggs in dirty water while around 25% thought the mosquitoes lay eggs in any water collection while some thought they lay eggs in vegetation. The majority of respondents were in favor of drainage of water collection and removal of water collection to prevent the breeding of mosquitoes. The tribal population preferred the use of smoke for prevention of breeding of mosquitoes. Use of oils in drains was considered as an option by around 25% of the respondents. Majority of the respondents knew about insecticidal spray and coils for killing mosquitoes. However, awareness of impregnated nets and their availability through governmental sources was not high.

About 25% of tribal respondents were ignorant of the methods of diagnosing malaria and more than 75% about any diagnostic method for other VBDs. Use of blood slides for malaria diagnosis was known to around half of the respondents. This was largely influenced by the educational status and gender of respondents. Around 20% of the respondents were aware of chloroquin while the rest were not aware of chloroquin for treatment of malaria. The awareness was low among illiterates and women. The awareness of the names of insecticides was observed to be low. DDT was the most common insecticide named by the respondents. The awareness of DDT, BHC, Malathion and commercial sprays was dependent on the educational status of respondents.

ANM/AWW and doctors were cited to be the most common source of knowledge about malaria. This was followed by family members and to some extent by radio/TV. Significantly, a sizeable portion of respondents did not cite newspapers or posters etc as sources of knowledge.

Most respondents felt that malaria and other VBDs were not an everyday illness and that it was not self limiting that requires no treatment. Sizeable proportion of respondents agreed that insecticides used against malaria are effective. While some respondents were willing to get their houses sprayed, significant proportion of tribal respondents did not give an affirmative response. The general response to chloroquin as an effective medicine for malaria treatment was positive. Many respondents were not aware of other alternative drugs such as quinine and primaquine. There is also unfamiliarity with respect to the dosage and the treatment regimen. A significant proportion of respondents felt that VBDs including malaria should be treated even if the person

has to buy prescribed medicine. Most of the respondents reported taking treatment in the event of malaria. However, knowledge of other VBDs was limited. The most common source for taking treatment of malaria was Health Centres and hospitals followed by qualified medical practitioners. Drug Distribution Centers (DDCs) and FTDs were the sources of treatment in a very small fraction of the respondents.

Despite low levels of awareness of the symptoms and treatment for VBDs, about 50% of the community members in the sample villages covered in Madhya Pradesh & Chhattisgarh expressed their willingness to pay for the medically treated bed nets, if supplied by the Government. There is no evidence of significant social marketing activity in the sample villages of four states covered in respect of stimulating the demand for drugs, ITNs and VBD related services in any of the four states covered during the study. Radical treatment is immediately started only in passive cases reported to PHCs. The doctors reported non-compliance of treatment regimen, with tribals taking low dosage and resorting to local herbal medicines. All these factors adversely affect the control of VBDs. There is a need for greater dissemination of information about the DDC/FTDs for treatment of fever and measures to instill confidence in them. IEC implementation strategies should be designed to align with the social and cultural setting of tribal communities for greater effectiveness.

### **Lack of Consultation**

Community participation in the program is still very weak. The grassroots level functionaries are not equipped to involve the community in program planning and implementation. For example, when anti-malaria campaigns are organized at the village level, community members do participate. However, as many as 8 villages out of 20 sample villages (40%) in Madhya Pradesh reported that there was no anti-malaria campaign undertaken in their villages for a considerable time. Around 50% of the sample villages covered in Chhattisgarh did not have anti-malaria campaigns. Village health committees are already envisaged under NRHM and with the help of local NGOs /CBOs including faith based organizations, communities need to be mobilized and involved in the planning and implementation of VBD control programs. GOI has made efforts to motivate volunteers at the village level to run FTDs and DDCs. However, there is continual attrition of these volunteers as there is no provision for incentives for them to keep their interest alive. There is a need for constant interaction with the volunteers to upgrade their knowledge as well as recognition of their services, to enhance a sense of ownership of the program.

## Chapter 3

### Objectives of IPDP

The objectives of IPDP are as follows:

- (i) Ensure that tribal/ST people affected by any subproject will benefit from the subprojects;
- (ii) Ensure tribal inclusion in the entire process of planning, implementation and monitoring of the subprojects;
- (iii) Ensure that the benefits of the subprojects are available to STs more than or at least at par with other affected groups
- (iv) Provide a base for the tribal groups in the area to receive adequate development focus and attention.

### Consultation with Tribal Groups

Tribal groups/IP were consulted during the preparation of the IPDP (details provided in the SABA). They were informed of the mitigation measures proposed and their views were taken into account in finalizing the plan. The consultation was primarily in the form of focus group discussions with tribal communities in sample villages apart from special consultations with tribal women & children as well as local health functionaries, NGOs and community based organizations such as SHGs/Mahila Mandals, PRIs etc active in the project area and working on public health related programs/issues/campaigns. These discussions were coordinated and facilitated through mobilization of stakeholders and participation by the health officials of District Program Offices of NVBDCP. The wide ranging issues raised during the consultations were based on the check-list developed as a detailed questionnaire. The inputs elicited were both open ended and close ended. Ranking methods were used for qualitative assessment of responses related to certain issues. Following this, an analysis was conducted of the Strengths, Weaknesses, Opportunities and Threats (SWOT) faced by tribals when accessing health care. Key measures that were considered necessary to ensure that indigenous peoples receive social and economic benefits under the project are described as follows.

### Action Plan for the IPDP

A range of interventions aimed at enhancing demand for VBD control services in tribal areas has been planned under the VBDCP. These interventions would address the social and economic constraints to health seeking behavior at the household and community level; as well as address some of the issues associated with limited access to services.

#### I. Increased Access to Services

There are several strategies for increasing access to health care services for tribals:

- a. **Public-Private Partnership (PPP):** Private sector is not involved significantly in the control of malaria and other vector borne diseases. Currently, the Government is not trying to rope in the private sector in VBD prevention and control. There is a great deal of scope for expanding PPPs, as has been successfully demonstrated in many other centrally sponsored programs, such as the National Blindness Control Program and the Revised National TB Control Program. Several initiatives have been incorporated into the project: (i) networking with Registered Medical Practitioners and private clinics for sharing reports of malaria incidence and deaths to enhance accurate surveillance and response, particularly in tribal areas where availability of services

through the government sector is poor; and (ii) organization of camps through public/private/NGO partnerships for the treatment of community owned bednets.

***Involvement of faith healers/traditional healers*** and other informal service providers (ISPs) in whom the tribals have faith in the VBDCP is one way of increasing access to services. The ISPs need to be made aware of the correct practices for diagnosis and treatment measures being pursued by the Government, through well-designed short courses and sensitization programs, as well as appropriately designed IEC, in order that they are well versed with the magnitude of VBD prevalence and the treatment regimen. Reporting arrangements need to be developed so that ISPs can report the number of cases diagnosed and treated on a regular basis to the VBDCP; treatment kits would be distributed to them; and referral arrangements will be worked out and communicated to the ISP in cases which do not respond to the accepted treatment regimen. Such strategies would be integrated into the overall BCC strategy for the project.

## **II. Improved Service Delivery**

***Increased availability of Staff:*** The project would enhance availability of staff at the state and district levels for specific skills such as BCC, financial management, procurement and M&E. In addition, it is proposed that vacant positions are filled with contractual staff in order to increase overall availability of service providers.

***Shift from Target Based Approach to Need Based Approach:*** States practice a target based approach in blood slide collection, examination and treatment based on population figures. The migration figures are not taken into account and many times it is noticed that tribal population moves to nearby districts as daily wage laborers. Instead of a target being set up in the beginning of the year, it should be need based and the high risk districts should be identified and a clear cut special plan should therefore be developed in advance for implementation. The project would enhance the correct diagnosis and complete radical treatment of malaria in tribal and other project areas. Access to early diagnosis of PF based on RDKs will be implemented in 43 districts in the first year (many of these are tribal districts), an additional 105 in the second year and in all the 200 districts in the third year. Each district will be stratified according to the risk of PF malaria. In PHC blocks with SFR  $\geq 2\%$ , all fever patients will have an RDK for PF, except if a microscopy result can be available within 24 hours. In other PHC blocks an RDK will only be taken for patients at high risk. This selective use of RDKs will optimize cost-effectiveness.

## **III. Enhanced Demand**

***Social Mobilization Strategies:*** Efforts need to be made to include tribal communities while planning and implementing the VBDCP through appropriate social mobilization strategies. Women's groups, including women's health societies, local voluntary organizations and panchayat health committees should be encouraged to support local level VBD control programs in various ways. During the malaria month, PRIs should be involved in covering water collection areas and spraying activities. They should also be facilitated to support publicity initiatives for VBD control. Empanelment of NGOs active in health sector should be the basis for formulating a strategy at state and district levels for their continued involvement. This should be a strategy rather than intermittent and ad hoc arrangements of their association in the VBD control program. All facilities within the framework should follow uniform reporting system and referral system. Outsourcing/franchising of discrete services (such as diagnostics) to NGOs/Private Sector should be explored. This will also include impact evaluation studies by an independent agency (to be hired as per set norms of the World Bank/WHO) to monitor behavior change in the community regarding use of ITNs, larvivorous fish, etc.

***Social Marketing:*** Social marketing can play a lead behavior change role among high risk and vulnerable groups through provision of improved VBD services and promotion of better treatment seeking behavior; provision and promotion of high quality, targeted facilities in concert with targeted communication intervention.

The operational strategies should address certain critical issues: In order to expand the market in rural areas and urban slums, Social Marketing Organizations (SMOs) should be allowed to use government rural health infrastructure and other channels like ICDS, in addition to their own private distribution networks. Participation of the private sector should be promoted and public-private partnership should be encouraged at all levels, for a wider distribution of social marketing products. Participation of private health providers in the delivery of standard preventive services should be solicited, using commercial franchising techniques. Government subsidies should gradually decrease for urban markets and non-essential products, so that public subsidy is targeted on the development of new markets (rural areas) and support of priority products. Specific interventions and free distribution should be designed for low-income (e.g. urban slums) and high-risks groups. Benchmarking funding and performance monitoring and evaluation mechanisms should be introduced. An ethics code for social marketing will also need to be developed and repression measures proposed to ban unfair marketing practices. The SMO needs to ensure that people get the products and services that they need for basic and essential health care including prevention and control of VBDs, at reasonable cost to themselves, and to the Government. The SMO should not remain confined to the urban and peri - urban areas, but must reach out quickly and massively to rural households. Subsidies should be re-directed accordingly.

***Behavior Change Communication:*** The project would strengthen capacity to plan and implement effective BCC/IEC. While doing so, several issues need to be addressed: (i) IEC material meant for tribal villages should not only be in the local language but should be prominently written in tribal dialect with emphasis on pictorial depiction to increase the visual impact of the campaigns to the target groups; (ii) local media such as wall writings, wall paintings and folk media should also be used. Generally, public announcements, drama/street plays/puppet shows, hospital and village meetings, health melas, songs etc could be a better means of communication for IEC than print media in view of the low literacy levels. These campaigns should keep in view the culturally and socially appropriate methods and traditional practices and beliefs of tribals which vary from place to place and community to community even within a given geographic region. It is noted that Mahila Mandals and religious ceremonies can be a media for carrying the IEC messages related to VBDs; (iii) there is a need to improve the outreach to the tribal communities through IEC with benchmarked activities and achievements with periodical assessment of their effectiveness. The periodic household surveys planned under the project would provide key information regarding changes in KAP with regard to VBDs.

School health programs and health education in schools may also be emphasized for prevention of VBDs in tribal districts notwithstanding the low literacy rates, with children used as a resource in health education. Children may also be involved to throw larvivorous fish bags into water collection points. School children may be developed as 'health volunteers' working as neighborhood 'Swyasthya Prahari'-through Child to Child approach.

#### **IV. Increased Community Participation**

To augment community participation in the program: As envisaged under NRHM, several activities are aimed at increasing community participation in health programs. These include: activation of the Village Health Committees and involvement of a greater number of stakeholders

particularly women and those from marginalized communities; appointing and training a woman from the community – Accredited Social Health Activist (ASHA), to play a key role in mobilizing people and supporting village health planning and action (see Annex 1); enabling support to ASHA from the ANM, AWW, and village based functionaries of other departments; involvement of the ANM in village planning process made possible by provision of an additional worker at the sub-center – all these initiatives would contribute towards enhancing community participation.

Such a strategy has been used effectively in many countries facing endemic vector borne diseases. In Puerto Rico, for example, the use of community reporting has greatly enhanced the effectiveness of surveillance. The objective of the program was to change the public's perception about dengue and make them understand that it is an important and potentially fatal disease. The program sought to make the public understand that most transmission occurs in and around the home by a mosquito, that is there because of their bad habits, that the disease can be prevented, but that the ultimate responsibility for prevention and control must be theirs, not the governments'. The community must be motivated to accept that responsibility. This "bottom up" approach was supported with community-based program is education. Different ethnographic segments of Puerto Rico were identified and effective methods of communication were developed that would motivate members of the different communities. For example, a segment on DHF was written into a local television "novella" or "soap opera." Because of the popularity of the novella in Puerto Rico, this was a very powerful educational tool. The program in Puerto Rico has been developed on the assumption that in order to succeed, every segment of society must become involved and accept appropriate responsibility. This includes federal, state or provincial and local government agencies, business groups, civic organizations, youth, community, religious, and medical groups.

***Role of PRIs:***

- PRIs should be involved in vector control programs such as distribution of larvivorous fishes, spraying operations, treating and distribution of bed -nets.
- Help Desks at PRIs, especially the health and education committees of local panchayat may be encouraged to identify the fever cases and direct them to sub-centres, DDCs, FTDs and malaria link volunteers (MLVs).
- PRIs may be given the responsibility to supervise the MLVs and their honorarium may be routed through them.
- PRIs may take an active role in distributing IEC materials widely in the community.
- PRI should play active role in all the activities during the VBD campaigns i.e. anti-malaria month, anti filarial campaign etc.

***Role of community volunteers:*** In Chhattisgarh, community volunteers from hamlets are selected and trained for malaria work. They play a crucial role at the field level in terms of identifying fever cases, collecting blood samples and providing presumptive treatment. There is a need to review and revamp the current arrangements in this regard. Since the role of male health workers has been integrated with the general health systems it is necessary to enhance the capacity of MLVs for both active and passive surveillance, as required. The ASHA is an additional resource at the community level introduced under the NRHM. This resource can be effectively mobilized to increase outreach of services and IEC at the community level. The role of the ASHA has been spelled out in greater detail in Annex 1.

***Inter-Sectoral collaboration:*** The extent and level of inter-sectoral collaboration is not seen to be coordinated and consistent both at the State and District levels. Through coordination with the

Social Welfare Department, AWWs could be trained to identify fever cases and refer them to the ANM or other appropriate functionary for proper diagnosis and radical treatment. In some areas, tribal department is involved in providing facilities like providing space for clinics. Significant improvement in linkages with water and sanitation authorities will be needed to ensure that there is no water logging through public health engineering interventions. PRI are seen to play an important role in IEC, organizing health camps, supporting malaria workers with transport and increasing acceptance for spraying operations.

***Gender Dimensions:*** Gender considerations would be incorporated into project planning and design by ensuring that consultations of the project field staff should include women and, depending on the cultural context, these consultations may have women facilitators consulting with women, separate from men. The household surveys would document changes in health status and health seeking behavior of women. However, due to the operational problems associated with disaggregating routine program data, this will not be undertaken under the NVBDCP.

## Chapter 4

### Action Plan for Mitigation of Potential Adverse Effects on Indigenous Peoples

Integrated vector control is universally accepted as an effective tool for vector borne disease control program. Among the available vector control methods, chemical control is decisively superior over environmental and biological control strategies that have limited applicability in mitigating sporadic unpredictable outbreaks of vector borne diseases. Deployment of chemical control embraces the whole gamut of strategies, which include indoor residual sprays (IRS), different types of larvicides, insecticide treated nets (ITN) and an ever-lengthening list of household insecticide formulations for personal protection measures. Vector control measures recommended and practiced by the NVBDCP relies largely upon situation-specific chemical control strategies to ensure effective control<sup>4</sup>. Insecticides belonging to different groups are in use for interventions namely IRS, larvicides and ITN. A major impediment to this program has been the development of insecticide resistance by vector species, which necessitates frequent replacement of the existing insecticides in the control program with new insecticides having adequate human and environmental safety.

National Environmental Engineering Research Institute, Nagpur was commissioned to carry out studies for evaluating impact of indoor residual sprays, used for control of vectors of public health importance, on surrounding environment, including health of people residing in the areas in five states, viz. Mizoram, West Bengal, Karnataka, Haryana and Maharashtra in 2002. The salient findings indicated below point to some of the potential adverse effects of the spraying operations:

- a) Directorate of NVBDCP uses chlorinated hydrocarbons, organophosphorus compounds and synthetic pyrethroids for control of vectors of public health importance.
- b) In general, each of the pesticides, before and after spray, has shown impact on both liver and kidney of humans. The cholesterol level has shown abnormal values in both males and females. This might be due to pesticide exposure and its impact on lipid metabolism function of the liver. However, effect of alcoholism and drug intake, which shows variation in biochemical parameters with respect to liver and cholesterol metabolism, can not be ruled out.
- c) Similarly, serum enzymes, viz. acid phosphatase, alkaline phosphatase, AST, and ALT were noted to deviate from normal ranges after exposure to pesticides. Also, serum urea, creatinine and bilirubin levels showed abnormal concentrations on exposure to pesticides indicates indicating abnormality in either kidney or liver, or both.
- d) Statistically significant rise in the concentrations of the pesticides has been noticed in the blood, milk, animal tissue and environmental samples collected after the pesticides spray in majority of the cases. About 47% rise in the concentration of DDT was found in breast milk after spray, as compared to the same in blood of the female volunteers
- e) A few surface water samples did not satisfy the drinking water standards with reference to certain abiotic characteristics like nitrate, total iron, oil & grease and TDS.

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<sup>4</sup> 'Environmental risk from insecticides use in agriculture far outweigh those of spraying for malaria control.. There is no doubt that the risk of increased death and morbidity from not using insecticides exceeds their potential negative public health and environmental impacts. Nevertheless, it is as important that these impacts are reduced as much as possible, especially in the rural areas' – World Bank. Ref: Environmental Management Plan, December 2006. National Institute of Malaria Research.

In addition, the following issues need to be addressed as part of the mitigation plan:

**Drug resistance<sup>5</sup>:** A few cases of drug resistance have been reported during the interaction with tribal communities but in view of the lack of verifiable data, it is not clear as to the degree and frequency of drug resistance in the districts covered in Madhya Pradesh and Chhattisgarh. In Chhattisgarh, the documented chloroquine resistant areas are Wadraftnagar Block of Surguja District, Pondiuprora Block in Korba District, Gariband Block of Raipur District, Pakhanjoor Block of Kanker District. Research on the particular vector and its bionomics and physiological aspects of resistance to insecticides may need to be undertaken. In this context, research capacity of entomologists/biologists in the states may also be enhanced. Operational Research studies on drug resistance trends are among the measures advocated. To combat drug resistance in malaria, the NVBDCP drug policy recommends the use of combination therapy i.e Artesunate plus Sulfadoxine Pyrimethamine as a second line of treatment for *P.falcipuram* cases in chloroquine resistant areas.

**Health risks from development projects:** Health risks from development projects resulting from vector-borne diseases are triggered by development of water resources projects in the vicinity of project villages (such as irrigation and reservoirs). Such developments change the distribution and flow of surface waters, creating a favorable habitat for vector breeding. Human exposure to biting insects or contaminated waters provides the conditions necessary for an increased health risk. Expensive mitigation measures then take the form of vector control through chemical application. Decisions about such development projects should require a health impact assessment procedure which could help reduce vector populations or prevent exposure. There is a need for interdepartmental coordination on this issue. This procedure, if advocated at the state level and adopted by the relevant interdepartmental agencies, would assist in the forecasting of the vector-borne disease implications of water resources development projects, covering the sub-sectors of irrigated agriculture and multipurpose reservoirs, assists the State Program office to identify:

- the specific vector-borne disease hazards which occur regionally and in different habitats;
- the vulnerable communities; and
- the capabilities of the health service to monitor, safeguard, and mitigate the vector-borne diseases.

### **Adverse Impact Mitigation Measures**

The program will also improve the effectiveness of its vector control component by introducing micro-stratification of districts according to revised national guidelines based on epidemiological, and ecological data, to delimit areas and populations which would be targeted for selected interventions, i.e. IRS or ITNs. Furthermore, the program will systematize insecticide rotation for IRS to lessen the risk of insecticide resistance and ensure the implementation of good pesticide management practices. The use of IRS will be restricted to high risk areas, where ITNs are unacceptable for the population or there is other evidence for superior effectiveness of IRS and for the control of epidemics with a focus on quality and completeness of IRS coverage.

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<sup>5</sup> High treatment failure to chloroquine has been detected in 241 PHCs of 57 districts in 19 states in the country and revised drug policy is being followed in all these areas using second line of treatment as per the NVBDCP malaria drug policy.

## Chapter 6

### Project Monitoring

**Monitoring Arrangements:** Monitoring mechanism would be strengthened at various levels.

- At the macro level, GIS would be developed to (a) determine the geographical distribution and variation of diseases; (b) analyze spatial and temporal trends of diseases; (c) identify gaps in immunizations; (d) map populations at risk and stratifying risk factors; (e) document community health care needs and assessing resource allocations; (f) forecast epidemics (g) plan and target interventions; (h) monitor diseases and interventions over time; (i) manage patient care environments, materials, supplies and human resources; (j) monitor the utilization of health centers; (k) route health workers, equipments and supplies to service locations; (l) publish health information using maps on the Internet; and (m) locating the nearest health facility.
- To maintain the use of effective drugs and get the desired impact, at least five units will monitor the quality of medicines and insecticides at different sites in the country. One unit in each state will be responsible for quality assurance of diagnosis. In addition, there will be an independent inspection agency monitoring the quality of pharmaceuticals by testing random samples.
- A set of performance indicators has been agreed as part of the Results Matrix. This will be augmented with service data to be collected regularly from the district level, including in all tribal districts.
- For monitoring at the community/household level, three household surveys have been planned, of which the baseline has already been completed and for which baseline data is available. For monitoring of tribal patients tribal heads/ elected representative may be involved/sensitized. Comparison of the Baseline and end line, process & impact indicators will allow project results and achievements to be measured. The functionaries were of the opinion that it is a difficult task to monitor the community based volunteers; therefore there is a need to strengthen the monitoring mechanism for the community based volunteers. This could be undertaken by PRI, considered to be crucial in the development of monitoring mechanisms as well as in all aspects of project planning and implementation at village level. ANMs should be more actively involved in VBD supervising activities at the village/community level, as well as involved in surveillance operations particularly infants, antenatal and postnatal cases.

**Monitoring mechanisms:** The monitoring and evaluation mechanisms should include arrangements for the free, prior, and informed consultation with the affected Indigenous Peoples' communities. The proposed project covers all districts included in the Fifth Schedule, and as such, the district-level data generated from routine monitoring as well as from the household surveys would provide adequate information on the impact of project interventions on tribal communities. Routine tracking of key elements of program performance would be undertaken through record keeping, regular reporting, surveillance systems and periodic surveys. A range of indicators has been identified for different reporting levels within the NVBDCP system. At national level, the monitoring efforts should focus on understanding and standardizing population based (including tribal communities) coverage for recommended interventions, through the GIS. This would be augmented with periodic household surveys to collect data on key indicators, at

baseline, mid-term and end-line. This would enable an evaluation of the impact of project interventions. At the state level, where efforts to implement interventions are functional, monitoring of program inputs (human resources, financing), processes (procurements and supplies, training) and outputs (services delivered by the NVBDC program) will be needed for understanding the complete picture of program activities for improved performance.

Indicators for monitoring the EVBDCP-IPDP are:

<b>Economic Indicators</b>	<b>Program Indicators</b>	<b>Output/Outcome Indicators</b>
<ul style="list-style-type: none"> <li>• Time spent by patient in diagnosis, in treatment facility, in transportation between facilities</li> <li>• Cost of transportation to treatment centers</li> <li>• Minimum lost wages in visiting the treatment center</li> <li>• Total number of days of lost wages due to illness</li> <li>• Increase in working days &amp; income productivity</li> <li>• Increase in school attendance</li> </ul>	<ul style="list-style-type: none"> <li>• Increased access to treatment and diagnostic sites due to increased PPP and other interventions to increase access</li> <li>• All drugs continuously available at treatment centers or through other means such as MLVs</li> <li>• Number of blood slides examinations conducted               <ul style="list-style-type: none"> <li>• Average duration between taking of smear and reporting results</li> </ul> </li> <li>• Patient information clear and comprehensive to illiterate patients (oral or pictorial)</li> <li>• Adequate counseling provided: explanation provided and patients understand how to take medicines and duration of treatment</li> <li>• Increase in patient visits to treatment centers/DDC/FTDs</li> <li>• Increased awareness of VBDs</li> <li>• Improved prevention practices</li> <li>• Increase in access to VBD services for tribal women (including pregnant women)</li> <li>• Increase of outreach efforts on VBD related awareness and services to tribal children (gender disaggregated)</li> <li>• Malaria death rate per 100,000, ages 0-4 (gender disaggregated)</li> <li>• Malaria death rate per 100,000, all ages (gender disaggregated)</li> <li>• Malaria prevalence, notified cases per 100,000 population (gender disaggregated)</li> <li>• Malaria treatment, percentage of population &lt;5 with fever being treated with anti-malarial drugs (gender disaggregated)</li> <li>• Malaria prevention, use of insecticide-treated bed nets in population &lt;5, per cent (gender disaggregated)</li> </ul> <p>Process Indicators:</p>	<ul style="list-style-type: none"> <li>• Percentage of vulnerable groups utilizing the facilities.</li> <li>• Percentage of women coverage from vulnerable groups as compared to the rest of the population.</li> <li>• Percentage of blood slide examinations conducted by skilled providers among the vulnerable groups as compared to rest of the population.</li> <li>• Percentage of treated cases among the vulnerable groups.</li> <li>• Percentages of children among vulnerable groups reporting with VBDs and treated cases - age group-wise.</li> <li>• Percentage increases in access to and demand for essential VBD services including demand and supply of drugs and blister packs, blood slide examinations, IEC material, bed nets, etc among the vulnerable groups.</li> <li>• Number of training programs for community workers, medical and para medical staff</li> <li>• Extent of involvement of community in the project formulation, implementation, monitoring and evaluation.</li> <li>• Involvement of NGOs</li> </ul>

	<ul style="list-style-type: none"> <li>• Percentage of districts having identified vulnerable groups and having these groups included in their PIPs.</li> <li>• Percentage of districts having conducted consultation process with the stakeholders.</li> <li>• Percentage of districts having conducted village level survey and mapping up of available infrastructure (social, medical, NGOs/CBOs, sanitation), VBD situation, identification of key triggers such as breeding sites for VBDs, and available manpower for management of the program etc.</li> <li>• Percentage of districts, which have identified and nominated officers for implementation and monitoring of project.</li> <li>• Percentage of districts having carried out capacity building needs assessment, and identified training institutions, number of raining courses conducted at different levels and training institutions identified for strengthening.</li> <li>• Percentage of districts having developed dependable referral system.</li> </ul>	<p>including outsourcing of services to institutions in the private sector</p> <ul style="list-style-type: none"> <li>• Status of submission of progress reports including Statement of Expenditure and Audit Reports at agreed intervals.</li> </ul>
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**Management Information System (MIS):** The directorate of Anti Malaria Program has recently developed software for MIS. This is a significant achievement for malaria control activities in the country. The software will provide substantial support for planning, surveillance, and monitoring activities of the program. Discussion forums and communication facilities for all users are provided in the website. Data can be analyzed even at sub-center level and one can even prepare maps from the data showing malaria prevalence village-wise which will be useful for early action. It is imperative that this software is installed in all the program states and districts with supportive training. There is a need to put in place mechanisms where in village level workers such as MLVs are actively involved in collecting blood smear samples and the data recorded is sent to PHCs/laboratories and to see that the laboratory technician document the outcome of the test, to ensure the accuracy of the data for MIS. Malaria cases treated in the private sector are not reported. Most of the non -poor fever cases are using the private health care, which go unreported to the government. As a result, not only the magnitude of the problem is unknown but also it affects taking preventive measures such as focal spraying. Therefore, mechanisms need to be evolved for instituting a system of reporting from major institutions in the private health care sector to feed into the MIS. Since malaria is a notifiable disease, the state government may insist on the private sector to report positive cases of malaria to the district health authorities. MIS using GIS at the New Delhi office should be extended to all states, so that village level information is available on the website for decision making as well for learning lessons from other states. The MIS should specifically evolve parameters of community involvement under the program which implies the level of community participation in the planning, implementation and maintenance of health services. Block Coordination Committees and Village Health Committees should be constituted for peripheral level collaboration and undertaking joint action including monitoring and evaluation.

## **Accessible Procedures to Address Grievances**

Tribals have poor access to health services related to VBDs and there is also under utilization of health services owing to social, cultural and economic factors. Some of the problems of accessibility and poor utilization of health services unique to tribal areas are because of difficult terrain and sparsely distributed tribal population in forests and hilly regions; locational disadvantage of sub-centers, PHCs, CHCs; non availability of service providers due to vacant posts and lack of residential facilities; lack of suitable transport facility for quick referral of emergency cases; lack of appropriate HRD policy to encourage/motivate the service providers to work in tribal areas; inadequate mobilization of NGOs; lack of integration with other health programs and other development sectors; IEC activities not tuned to the tribal idioms, beliefs and practices; services not being client friendly in terms of timing, cultural barriers inhibiting utilization; non involvement of the local traditional faith healers and weak monitoring and supervision systems. In light of this, the project will adopt accessible procedures to address grievances through helpdesks at block and district levels. Where possible, such facility could be considered at village panchayat level. This facility would be widely publicized for enhancing access to the services of the project by tribal communities in terms of availing bed nets, medicines, blood slide examination, reporting of VBD cases, IEC material, seeking fumigation services or other biological control methods and for lodging any complaints for redressal. Institution of Village Health Committees with representation of tribal community members is another step in this direction.

## **Indigenous Peoples Planning Framework (IPPF) for Access to Vector Borne Diseases Control Project**

The Indigenous Peoples Planning Framework (IPPF) is intended to guide selection and preparation of additional subprojects under the Program where impacts on tribal people are identified to ensure better distribution of the Program benefits and promote development of the indigenous peoples in the Project areas. The IPPF identifies the policy and procedural requirements together with the screening and planning procedures, which apply to sub-projects, components or investments that are to be approved during loan implementation.

**Absorptive Capacity of Tribal Communities:** The potential positive effects of such programs or subprojects on Indigenous Peoples are influenced by the absorptive capacity of tribal communities. Absorptive capacity is the capacity of the tribal community groups to reap the benefits from the project and/or adapt to the adverse impacts associated with the project. There are a number of critical factors needed to ensure that the benefits will flow to the people in the project areas. The first important factor is the availability and access to diagnosis and treatment. The second factor is the assured supply of drugs. The third factor is assuring preventive measures in tribal districts and villages. The fourth factor is the creation of awareness and knowledge among tribal communities on the vector borne diseases, prevention measures, symptoms, treatment regime, treatment facilities and program benefits. Unfortunately, the knowledge of the project beneficiaries is very low. In fact, the education level is also very low – restricting the capacity of the beneficiaries to absorb new knowledge and take advantage of the project benefits. It is very important to transfer knowledge to tribal communities as early as possible in the project through improved outreach services including training of local health workers, television, and other education and awareness programs.

**Targeting:** To ensure benefits flow to the intended tribal community members, robust data will be maintained through a well-designed GIS on the incidence and prevalence of VBDs in tribal areas. This will enable district and state authorities to target interventions based on need, and to bring on board additional support to the program in the form of PPPs with NGOs and other groups. An effective MIS would also enable program managers to track the availability of personnel, drugs and other supplies, and manage their deployment more effectively to meet the needs in areas where outbreaks have occurred.

**Use of Insecticides:** This project involves the use, storage, transportation, and disposal of insecticides and pesticides in various applications. The management of these insecticides requires stringent and systematic cradle to grave management, otherwise there could be direct environmental and public health implications. The proposed project will finance insecticides for control of malaria and other VBDs. In India the import, manufacture, sale, transport, distribution and use of insecticides is regulated under the Insecticides Act. While it is recognized that DDT is produced in India and is used in the vector control program, the Bank funds are not envisaged to be used for procurement of DDT. DDT use has been banned in the agriculture sector since 1989 and is no longer used in urban areas under the Urban Malaria Scheme (UMS) in favor of pesticides like Malathion and synthetic pyre thyroids. It is still used in rural areas of Madhya Pradesh and Chhattisgarh (and in other States) in indoor spraying applications (IRS) and it is important that appropriate guidance and training on safe handling is provided to the workers. Community awareness and information dissemination will play a key role in ensuring effective, focused and targeted use of DDT. This will require sound management and operational practices on the use and management of insecticides, including DDT, establishment of an institutional framework, capacity building, strengthening of technical guidelines, stringent monitoring of the

supply and distribution chain, evaluation of behavioral changes and community awareness and advocacy.

### **Institutional Arrangements**

Institutional arrangements (including capacity building where necessary) for screening project-supported activities, evaluating their effects on Indigenous Peoples, preparing IPPs, and addressing any grievances.

Community participation, in the program by and large has not been very visible so far. Very few private practitioners were actively involved in the program. Participation of the CBOs/NGOs was not significant. These aspects need to be looked into through village level mapping of the potential partners in terms of community organizations, private practitioners and NGOs for enhancing effectiveness of NVBDC program implementation through community mobilization and IEC efforts with decentralized funding mechanisms. There is also a need to train health sector personnel in the management and decision-making for integrated vector management which will include formulation of municipality level guidelines for the selection and evaluation of vector control options. Training of especially the grassroots functionaries should emphasize on enhancing counseling and communication skills of the functionaries, as counseling is a major issue for initiation of treatment at the right time and compliance with treatment. Thus there is a need to train them on social mobilization and motivation skills. Training should emphasize on the role of IEC activities.

### **Monitoring and Reporting Arrangements:**

Benefits monitoring has been incorporated in the Project Implementation Plan (PIP). The benefits monitoring plan would:

- Identify a few indicators of the achievement of the project output(s), purpose(s), and goal(s) for each component district-wise;
- Assess existing management information systems in terms of their adequacy in guiding the operation of the project for maximum effect;
- Specify indicators to monitor and evaluate the delivery and distribution of benefits to the tribal communities identified, and to identify adjustments required during implementation to meet the needs of tribal community groups more effectively;
- Field review missions to assess social dimensions and associated processes
- Encourage participation by adversely affected groups

An external independent monitoring agency will be engaged by the Directorate of NVBDC Programme to undertake independent external monitoring of the Plan. Reporting / monitoring formats should be prepared for both internal and external monitoring.

### **Disclosure Arrangements**

The EVBDCP should institute systems for disclosure of arrangements made and the results thereof (updated from time to time) in respect of IPP through appropriate formats for wider dissemination through their website.

### Role of ASHA\*

ASHA would implement the program at the village level.

#### Malaria

**1. Conducting fever surveillance:** Malaria is a disease associated with high fever, chills with rigors, headache, vomiting and other flu like symptoms. ASHA would conduct door-to-door fever surveillance activity on a weekly basis and report any occurrence of fever to the ANM/ health workers as well as the Medical Officer, Sector PHC.

**2. Conducting Rapid Diagnostic Test for diagnosis of malaria:** ASHA would be trained in the use of Rapid Diagnostic Test kits for malaria, a blood test on the person suffering from malaria symptoms to determine the presence of malaria.

**3. Acting as Fever Treatment Depot:** If the Rapid Diagnostic Test for malaria is positive, ASHA would make treatment available at the village level as a Fever Treatment Depot so that people get treatment at the earliest to prevent any complication and death. The worker will be imparted adequate training before assigning her the responsibility of a Fever Treatment Depot.

**4. Referral of severe malaria cases to hospitals:** If the disease becomes serious, and the patient suffers from symptoms of severe malaria as high fever with convulsions (fits), anaemia, severe dehydration, inability to stand or sit, ASHA would refer the patient to a hospital. Treatment is effective if it is started early.

**5. Indoor Residual Spraying:** To stop the transmission of malaria, it is very essential to control the mosquito populations. Two rounds of Indoor Residual Spray with DDT or other insecticides (timing of the spray will depend on the area) on the walls and roofs of houses are conducted. ASHA would be engaged in increasing community acceptance of indoor residual spraying.

**6. Promotion of use of Insecticide Treated Nets (ITNs):** ASHA would be involved in identification of people living below the poverty line for distribution of free ITNs. ASHA would also be trained for retreatment of community owned ITNs and would educate the community to do the same. In particular, ASHA would also encourage pregnant mothers and children under five to use ITNs.

#### Kala-azar.

**7. Conducting fever surveillance:** ASHA would conduct door-to-door fever surveillance activity on a weekly basis to find out and enlist all cases of prolonged fever of more than a fortnight not responding to anti-malarials and antibiotics and refer them to the PHCs for confirmation of diagnosis.

**8. Referral of Kala-azar and Post Kala-azar Dermal Leishmaniasis (PKDL) cases:** ASHA would be referring Kala-azar and PKDL cases to the PHC for confirmation and initiation of treatment. PKDL, which manifests in the community as a painless skin condition is often overlooked by the patient himself. PKDL is a potent reservoir for further transmission of disease, and all such cases must be detected and completely treated.

**9. Counselling and Treatment Completion:** After being diagnosed with Kala-azar / PKDL, the patient must be counselled to initiate treatment immediately. ASHA would be counseling the patient for completing the full course of treatment. As the treatment is of a long duration, there is often a tendency on the part of the patient to discontinue treatment as the patient starts feeling better in a few days. The patient and his family must be made aware about the necessity of the complete treatment for individual relief as well as bringing down parasite load. Discontinuation of treatment midway is dangerous for the patient, as well as the community, as the parasites of

Kala-azar if not removed from the body of the patient will again cause the disease in him/her, and what is even worse, some of them be transmitted, though the bite of the insect to other healthy individuals. ASHA would be motivating the patient.s family to provide emotional support to the patient during the period of illness.

**10. Indoor Residual Spraying with DDT:** To stop the transmission of Kala-azar, it is very essential to control the sand-fly populations. ASHA would be responsible for coordination with the spray team, informing the community in advance about the spray through IEC, motivating the community for acceptance of IRS, ensuring over 85% coverage of rooms and cattle sheds with DDT in the allotted villages and ensuring that mud plastering is not done after the DDT spray.

### **Behaviour Change Communication**

**11. Awareness Generation and Dissemination of information-** ASHA would be providing information to the community pertaining to prevention and control of all six VBDs like elimination of breeding sites and the importance of early detection and complete treatment through Inter-personal communication.

*Ref: Health Bulletin for Asha on Prevention and Control of Vector Borne Diseases, Bulletin 1 . January 2007 of NVBDCP*