



सत्यमेव जयते

NATIONAL ROAD MAP FOR KALA-AZAR ELIMINATION

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**Directorate of National Vector Borne Disease Control
Programme (NVBDCP)
Directorate General of Health Services
Minister of Health & Family Welfare
22 Sham Nath Marg, Delhi - 54**

Preamble

Kala-azar (KA) or Visceral Leishmaniasis (VL) is a parasitic disease with anthroponotic (confined to human only, no animal reservoir) infection in Asian continent. If remain untreated, probability of death of Kala-azar patient within two years of the onset of the disease is high. The disease is endemic in Indian subcontinent in 119 districts in four countries namely Bangladesh, Bhutan, India and Nepal. India alone accounts for about 50% of the global burden of KA. Though KA is one of the most dangerous neglected tropical diseases (NTDs), it is amenable to elimination as a public health problem. Favourable factors for Kala-azar Elimination are: man is the only host, sandfly (*Phlebotamus argentipes*) is the only vector and rapid diagnostic tests with new and effective drugs are available for use in the programme. The geographical spread of the disease is limited to 54 districts in India and above all there is high political commitment.

Focused activities towards Kala-azar control were intensified in 1990-91, with limited options for prevention and control of the disease. Long treatment schedule with injection Sodium stibogluconate and indoor residual spray (IRS) with DDT 50% were the mainstay of activities. Over a period of time, resistance to the only drug (injection Sodium stibogluconate) led to frequent outbreaks and fatalities.

National Health Policy (2002) envisaged KA elimination by 2010 which was revised to 2015. There is a Tripartite Memorandum of Understanding signed by Bangladesh, India and Nepal to eliminate KA from the South-East Asia Region. The criterion of elimination is attainment of annual incidence of KA to less than one per 10,000 population at upazilla level in Bangladesh, sub-district (block PHC) level in India and district in Bhutan and Nepal.

Since 2003, KA programme activities have been subsumed under the umbrella of National Vector Borne Disease Control Programme (NVBDCP). All the programme activities and operational cost, with 100% central assistance, are being implemented. 'Health Care' being a State subject, endemic states are implementing programme activities through the State Health system under the National Health Mission.

KA elimination activities received impetus with the World Bank supported project (2008-2013). During the World Bank project, provisions for additional human resource were made at National level. Consultants at State and District level and Kala-azar Technical Supervisors (KTS) at endemic Block level were provided from World Bank funds. Provisions for mobility were also made therein. After the termination of World Bank project during 2013, same support is being still continued from Central domestic budget.

New technology and advances in diagnosis and treatment like availability of easy to use rapid diagnostic test and availability of effective drugs (oral Miltefosine, injectable Liposomal Amphotericin B and combination regimens) has renewed interest in elimination of KA. Global focus has also been reinvigorated for neglected tropical diseases including Leishmaniasis. The London Declaration in 2012 and World Health Assembly Resolution in 2013 provide opportunities to accelerate the activities towards reducing the impact of neglected tropical diseases and to develop new partnerships.

New Central government after taking over the charge took into cognizance the importance of KA elimination and India's commitment as reflected in National Health Policy, constituted a 'Core Group' at the Ministry of Health & Family Welfare level for guidance and oversight of the progress towards elimination. The roadmap document is developed for focused efforts at national, state, district and sub-district level. Presently, resources are available, multiple partners are providing support, easy to use diagnostic tests are available, there is drug donation through WHO *inter alia* high political commitment at all levels. Programme is striving for achieving KA elimination by the target date.

Executive summary

National Roadmap for Kala-azar Elimination (NRKE) has been prepared with clear goal, objectives, strategies, timelines with activities and functions at appropriate level. This document is based on latest global, regional and local evidence available in the prevention, control and management of Kala-azar disease as well as strategies for vector control. NRKE is in line with National Strategic Plan of National Vector Borne Disease Control Programme for the Twelfth five-year plan period (2012-2017) and at the same time in synchronization with WHO's Regional Strategic Framework for Kala-azar elimination from South-East Asia Region (2011-2015), recommendations of WHO Expert Committee on Leishmaniasis and WHO Regional Technical Advisory Group, South-East Asia Region.

Roadmap provides strategic directions on reducing the delay between onset of disease and diagnosis and treatment by laying down timelines against each activity. It emphasizes specifically on early case detection and complete management (including follow up mechanisms and monitoring for adverse effects). Recently more drugs are available for treatment. Roadmap highlights plan for the introduction of single dose (10 mg/kg) Liposomal Amphotericin B in the treatment of KA and other conditions like post Kala-azar dermal leishmaniasis. With scanty data currently available on the burden of post Kala-azar dermal leishmaniasis (PKDL), roadmap lays down surveillance needs to be established and/or strengthened for PKDL as well as for HIV-VL co-infection.

Integrated Vector Management (IVM) is the main strategy which provides rational decision-making process for optimum use of resources for vector control. Indoor residual spray operations remain mainstay of vector control. Micro-plan and timely spray activities have been envisaged for reducing longevity of the adult vectors, elimination of the breeding sites, decrease contact of vector with humans, and reduction in the density of the vector.

The population at risk for Kala-azar is among the poorest in the community with limited access to health care due to various socio-economic determinants. Intensive awareness campaigns with the involvement of communities and community health volunteers will address important barriers in utilization of services.

Kala-azar elimination will require effective involvement of health personnel at all levels in the continuum of care, right from the engagement of ASHA at village level to laboratory technicians, medical officers at primary health care to specialists at district hospitals for early identification of a suspected case and then to diagnosis treatment including complications.

Effective programme management is one of the most important operational aspects of success of KA elimination in India along with supervision, monitoring and surveillance components to ensure that success is not only achieved but sustained also.

Acronyms

ANM	Auxiliary Nurse cum Midwife
ASHA	Accredited Social Health Activist
AWW	Anganwadi worker
BMGF	Bill & Melinda Gates Foundation
BTAST	Bihar Technical Assistance Support Team
CARE	Care and Relief Everywhere
CMHO	Chief Medical and Health Officer
DDT	Dichloro Diphenyl Trichloroethane
DFID	Department of Foreign Investment and Development
DNDi	Drugs for Neglected Diseases initiative
EDCT	Early Diagnosis and Complete Treatment
ED	Executive Director
HIV	Human Immunodeficiency Virus
ICMR	Indian Council of Medical Research
IDSP	Integrated Disease Surveillance Programme
IEC	Information, Education and Communication
IRS	Indoor Residual Spray
ISC	Indian subcontinent
IVM	Integrated Vector Management
KA	Kala-azar
KTS	Kala-azar Technical Supervisor
LAMB	Liposomal amphotericin B
LD bodies	Leishmania Donovan bodies
MD	Managing Director
MOHFW	Ministry of Health and Family Welfare
MoU	Memorandum of Understanding
MSF	Medecins Sans Frontieres
NCDC	National Center for Disease Control
NHM	National Health Mission
NRKE	National Roadmap for Kala-azar Elimination
NVDBCP	National Vector Borne Disease Control Programme
PHC	Primary Health Centre
PKDL	Post Kala-azar Dermal Leishmaniasis
RBSK	Rogi Bal Suraksha Karyakram
RMRI	Rajendra Memorial Research Institute
RDT	Rapid Diagnostic Test
RTAG	Regional Technical Advisory Group
SEAR	South-East Asian region
SHS	State Health Society
SPO	State Programme Officer
VBD	Vector Borne Diseases
VL	Visceral Leishmaniasis
WHO	World Health Organization

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National Road Map For Kala-azar Elimination

1. Introduction

Kala-azar (KA) also called *Visceral Leishmaniasis* is a parasitic disease with anthroponotic (confined to human only, no animal reservoir) infection in Asian continent. It is caused by the protozoan *Leishmania* parasites which are transmitted by the bite of infected female *phlebotomine argentipes* sand fly. Kala-azar is characterized by irregular bouts of high fever, substantial weight loss, enlargement of the spleen and liver, and anaemia. If left untreated, the disease can have a fatality rate as high as 100% within two years.

Transmission in Indian sub-continent generally occurs in rural areas with a heavy annual rainfall, with a mean humidity above 70%, a temperature range of 15–38 °C, abundant vegetation, subsoil water and alluvial soil. The disease is most common in agricultural villages where houses are frequently constructed with mud walls and earthen floors, and cattle and other livestock live close to humans.

2. The Global Scenario

The annual incidence of reported global KA cases is 58,200 of which 42,619 (>70%) is contributed from the Indian Subcontinent (ISC). The revised global and ISC annual incidence estimate of KA is 201,500–378,500 and 160,000–320,000, respectively, of which more than 90% cases occur in six countries, Bangladesh, Brazil, Ethiopia, India, Nepal and Sudan.

There are currently no accurate data on the burden of Post Kala-azar Dermal Leishmaniasis (PKDL). VL–HIV co-infection has also emerged as a serious concern and is reported from 36 countries. There is a strong need to establish surveillance for both the conditions.

An estimated 147 million people in 119 districts in 4 countries, namely Bangladesh, Bhutan, India and Nepal, are at risk with an estimated 20,000 new cases each year. India alone accounts for about 50% of the global burden. The proportion of unreported cases is yet to be established but estimates range from 0.2 to 4 times of the reported cases.

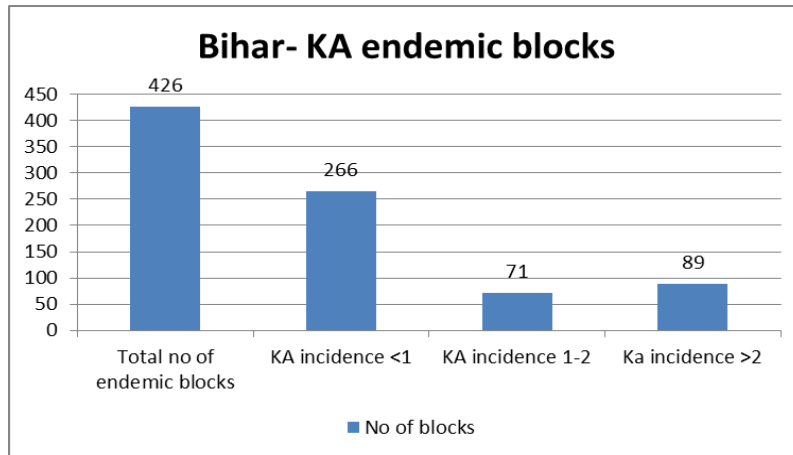
3. India Scenario

Kala-azar is at present endemic in 54 districts in the country of which 33 districts of Bihar, 4 districts of Jharkhand, 11 districts of West Bengal besides occurrence of sporadic cases in 6 districts of eastern Uttar Pradesh. The state of Bihar alone contributes >70% of total KA reported from the four states. In 2013, the cases have declined by 38% and 33% respectively in comparison with the year 2011. Mortality has also reduced from 90 deaths in 2011 to 20 in 2013. The same trend is observed during 2014 so far.

3.1 Bihar Scenario

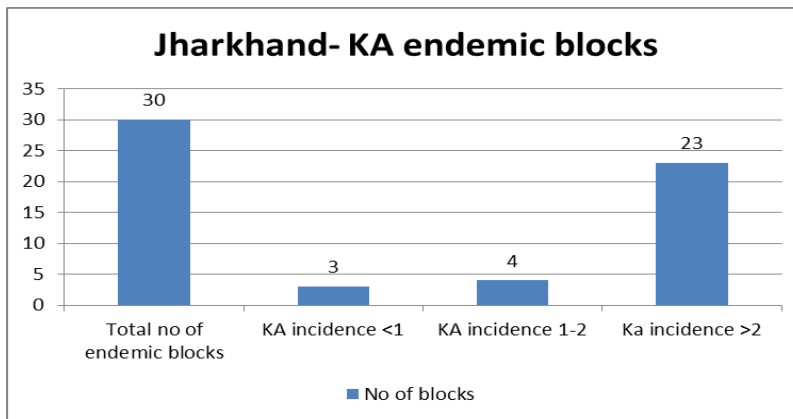
Of the 38 districts of Bihar, 33 are affected. The population at risk is 34.65 million, in approximately 12,000 villages spread over 426 blocks. 62% of these blocks have achieved level of elimination.

Most of the cases are reported from districts in the northern half, mostly constituting the floodplains of major rivers. 10 districts out of 33 affected by Kala-azar in Bihar detect 500 or more cases annually and contribute to about 70% cases of the state. These are Araria, East Champaran, Madhepura, Muzaffarpur, Purnia, Saharsa, Samastipur, Saran, Sitamarhi and Vaishali.



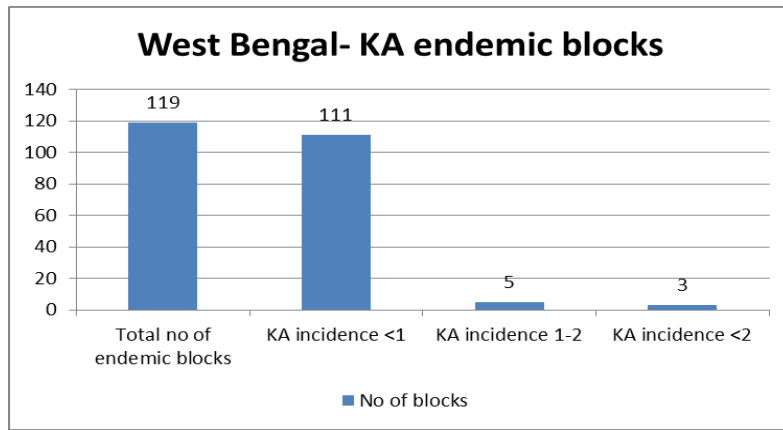
3.2 Jharkhand scenario

Out of 24 districts 4 districts namely, Dumka, Godda, Pakur and Sahibganj are endemic for Kala-azar. The population at risk is 4.8 million, in approximately 1,507 villages spread over 30 blocks. Only 10% blocks have achieved elimination.



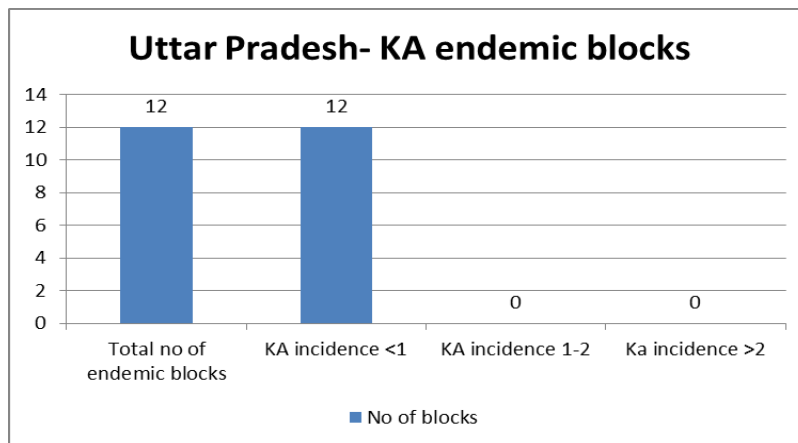
3.3 West Bengal

Out of 19 districts 11 districts namely, Malda, Murshidabad, Darjeeling, 24-Parganas(N), 24-Parganas(S), Nadia, Hooghly, Burdwan, Dinajpur (N), Dinajpur (S) and Birbhum are endemic for Kala-azar. The population at risk is 4.76 million, in approximately 731 villages spread over 119 blocks. 93% blocks have achieved level of elimination.



3.4 Uttar Pradesh

Out of 72 districts, 6 districts in eastern part of the State namely Kushinagar, Balia, Deoria, Varanasi, Gonda and Gazipur are reporting sporadic cases of Kala-azar. The number of cases reported during 2013 was 11. So far 7 cases have been reported from the State during 2014. The population at risk is 2.35 million. All the blocks have reached level of elimination.



4. National Kala-azar Elimination programme

Kala-azar has been a serious medical and public health problem in India since historical times. Bengal is the oldest known Kala-azar endemic area of the world. After the initial success, Kala-azar resurged in 70s. Concerned with the increasing problem of Kala-azar in the country, the Government of India (GOI) launched a centrally sponsored Kala-azar Control Programme in the endemic states in 1990-91. The GOI provided drugs, insecticides and technical support and state governments provided costs involved in implementation. The program was implemented through State/District Malaria Control Offices and the primary health care system. The programme brought a significant decline in Kala-azar morbidity, but could not sustain the pace of decline for long.

The National Health Policy-2002 set the goal of Kala-azar elimination in India by the year 2010 which was revised to 2015. Continuing focused activities with high political commitment, India signed a Tripartite Memorandum of Understanding (MoU) with Bangladesh and Nepal to achieve Kala-azar elimination from the South-East Asia Region (SEAR). Elimination is defined as reducing the annual incidence of Kala-azar to less than 1 case per 10,000 population at the sub-district (block PHCs) level in Bangladesh and India and at the district level in Nepal.

Presently all programmatic activities are being implemented through the National Vector Borne Disease Control Programme (NVBDCP) which is an umbrella programme for prevention & control of vector borne diseases and is subsumed under National Health Mission (NHM).

1.1 Goal

To improve the health status of vulnerable groups and at-risk population living in Kala-azar endemic areas by the elimination of Kala-azar so that it no longer remains a public health problem.

1.2 Target

To reduce the annual incidence of Kala-azar to less than one per 10,000 populations at block PHC level.

1.3 Objective

To reduce the annual incidence of Kala-azar to less than one per 10 000 population at block PHC level by the end of 2015 by:

- reducing Kala-azar in the vulnerable, poor and unreached populations in endemic areas;
- reducing case-fatality rates from Kala-azar to negligible level;
- reducing cases of PKDL to interrupt transmission of Kala-azar; and
- preventing the emergence of Kala-azar and HIV/TB co-infections in endemic areas.

2. The Elimination strategy

The national strategy for elimination of Kala-azar is a multipronged approach which is in line with WHO Regional Strategic Framework for elimination of Kala-azar from the South-East Asia Region (2011-2015) and includes:

- I. Early diagnosis & complete case management
- II. Integrated Vector Management and Vector Surveillance
- III. Supervision, monitoring, surveillance and evaluation
- IV. Strengthening capacity of human resource in health
- V. Advocacy, communication and social mobilization for behavioral impact and inter-sectoral convergence
- VI. Programme management

2.1 Early diagnosis and complete case management

This is done for eliminating the human reservoir of infection through early case detection. Effective case management includes diagnosing a case early along with complete treatment and monitoring of adverse effects. This strategy will reduce case-fatality and will improve utilization of health services by people suspected to be suffering from the disease.

The starting point of early diagnosis is to follow uniform suspect case definition.

- A 'suspect' case: history of fever of more than 2 weeks and enlarged spleen and liver not responding to anti malaria in a patient from an endemic area.
- All patients with above symptoms should be screened with Rapid Diagnostic Test and if found positive should be treated with an effective drug.
- In cases with past history of Kala-azar or in those with high suspicion of Kala-azar but with negative RDT test result, confirmation of Kala-azar can be done by examination of bone marrow/spleen aspirate for LD bodies at appropriate level (district hospital) equipped with such skills and facilities.

Treatment: In 2010, the WHO Expert Committee on Leishmaniasis, and subsequently the Regional Technical Advisory Group (RTAG) of WHO South-East Asia Region (SEAR) recommended Liposomal Amphotericin B (LAMB) in a single dose of 10 mg/kg as the first choice treatment regimen for the Indian Subcontinent (ISC) within the current elimination strategy, given its high efficacy, safety, ease of use and assured compliance. The decision to use Liposomal Amphotericin B for Kala Azar was taken by the Technical Advisory Committee based on the available evidences and approved by Ministry of Health and Family Welfare, Govt. of India. In selected districts, Amphotericin B emulsion has been approved. The combination regimen (Injection Paromomycin-Miltefosine for 10 days) is also recommended. Miltefosine 28 days regime and Amphotericin B as multiple doses may also be used.

Within the Indian National Programme, assuming availability of drugs, appropriate training of health personnel, infrastructure and indication, the following drugs will thus be used in order of preference at all levels:

- Single Dose 10mg/kgbw Liposomal Amphotericin B (LAMB)
- Combination regimens (e.g. Miltefosine & Paromomycin)
- Amphotericin B emulsion

- Miltefosine
- Amphotericin B deoxycholate in multiple doses

–Post Kala-azar Dermal Leishmaniasis (PKDL) patients are to be treated with (i) Liposomal amphotericin B: 5mg/kg per day by infusion two times per week for 3 weeks for a total dose of 30mg/kg, or (ii) Miltefosine: 100mg orally per day for 12 weeks, or (iii) Amphotericin B deoxycholate: 1mg/kg over 4 months 60-80 doses, [as per WHO guidelines on diagnosis and management of PKDL, 2012]

–Case management of special conditions like relapse, HIV-VL co-infection and others will follow NVBDCP operational guidelines of Kala-azar

It is to be noted that Miltefosine cannot be given to pregnant and lactating women, nor in young children. In women of child-bearing age Miltefosine should not be prescribed unless contraception is guaranteed during treatment and for two months after the treatment is completed. In women suffering from PKDL treated with Miltefosine, this period is extended to 5 months following completion of treatment.

2.2 Integrated vector management (IVM) including indoor residual spraying (IRS)

Integrated Vector Management (IVM) is a rational decision-making process for the optimal use of resources for vector control. The main objective is to reduce longevity of the adult vectors, eliminate the breeding sites, decrease contact of vector with humans, and reduce the density of the vector. This approach improves the efficacy, cost-effectiveness, ecological soundness and sustainability of disease-vector control. The five key elements of IVM include capacity building and training, advocacy, collaboration, evidence-based decision-making and integrated approach.

IRS is the main stay of vector control for breaking the human-vector-human cycle of transmission.

The current strategy is to do IRS twice a year in all houses (upto six feet height) and complete coverage of cattle sheds in villages which had a Kala-azar case reported in the last 3 years including the current year supplemented with focused IRS in villages reporting KA cases. The spray is usually organized in two rounds, 1st round during February - March when sand fly are fairly active and 2nd round during May – June (months may vary from district-to-district based on entomological data) to limit sand fly population supplemented with focused IRS in the villages reporting KA cases.

2.3 Supervision, monitoring, surveillance and evaluation

Supervision, monitoring and surveillance are essential components to ensure success of the programme. There is a need to strengthen surveillance for KA and PKDL including line listing of cases at village level to identify hot spot areas (villages reporting five or more KA cases in previous or current year) and update areas for micro planning for spray operations. As per WHO's Fifth Regional Technical Advisory Meeting of South-East Asia Region, 15-20% of KA patients seek treatment in the private sector. Information from private sector is essential to have better picture of burden of disease and sustain the gains achieved towards elimination. Since the emergence of VL-HIV co-infection and posing threat on the achievements, surveillance of VL-HIV cases is important apart from early and long term follow up of KA and PKDL cases (six and 12 months respectively) as well as information on

relapses. Independent evaluation or validation of elimination will pave the pathway towards further reducing KA burden in the community to the lowest level.

5.4 Strengthening capacity of human resource in health

Kala-azar elimination will require effective involvement of health personnel at all levels in the continuum of care, right from the early identification of a suspect case to diagnosis and management, including complications. This can be achieved by orientation of human resource in health appropriate for different levels. There are multiple actors engaged in KA control programme like ASHA at community level, ANM at sub-health centre level, laboratory technicians and supervisory staff in the form of Kala-azar technical supervisors at primary health care centre level, district VBD consultants, PHC and district medical and programme officers. In addition, other stakeholders like BMGF/CARE has also made provisions for human resource support at the district and block level (district programme manager and link workers at block PHC respectively). Roles and responsibilities at each level need to be defined and followed.

5.5 Advocacy, communication and social mobilization for behavioral impact and Inter-sectoral convergence

The population at risk for Kala-azar is among the poorest in the community and often poorly nourished. Access to care remains an issue in at-risk population and other under privileged sections of communities. Inadequate utilization of health services and lack of faith in public health systems by the affected population are major barriers in achieving elimination. This can be addressed by intensive awareness campaigns with the involvement of communities and community health volunteers. Awareness about the disease, its features, diagnostic and treatment options, prevention, existing schemes and incentives and other aspects of the disease are not widely known. Therefore there is a need for advocacy, communication and social mobilization through all the existing methods (wall writing, hoardings, banner, pamphlets, radio gingles etc) as per the local context. Opportunities should be explored to spread the messages during weekly market or any other mass gathering (Chath puja, fares, melas etc) Display of messages particularly during campaigns which are community based and inter-personal communication are considered the best methods for spreading awareness.

5.6 Programme management

Programme management is the most important operational component for success of Kala-azar elimination. It involves coordination between centre and state level offices as well as effective coordination and harmonization of activities with different partners in the programme. Day-to-day management of the programme activities like cold chain maintenance, drug requests, procurement and transportation of drugs, diagnostics and commodities, planning and monitoring need to be strengthened at all levels of implementation.

6 Road map for Kala-azar elimination

6.1 Diagnosis and treatment

- Need to reduce delays in screening patients with prolonged fever for Kala-azar. Reduction in delay and thus reduction in interruption of transmission can be achieved through different approaches of active case detection apart from voluntary case reporting (passive)
- Use of standardized rapid diagnostic kits with maximum sensitivity and specificity suitable to local context.
- Patients seeking treatment in private sector.
- Clear treatment strategy for achieving KA elimination and planning for rolling out single dose Liposomal Amphotericin B is required.
- Strengthening cold chain maintenance for drug transportation, storage, distribution and dispensing and ensuring capacity building of health personnel and task shifting in the use of Liposomal Amphotericin B.
- Treatment follow-up of KA and PKDL.
- Establishing pharmacovigilance as a routine programmatic strategy.
- Identification of PKDL. Collaboration with leprosy programme for PKDL.
- Multidisciplinary strategy for HIV-VL
- Monitoring of drug stocks and diagnostics requires strengthening to ensure early flagging of potential stock outs.

No	Components and proposed Action	Timeline (completed by)	Responsibilities
1.	Reduce delay in screening patients with prolonged fever for Kala-azar. Current average time from onset of fever to diagnosis exceeds one month. Large proportion of patients first report to private sector (unqualified or qualified providers) for fever where reliable diagnostics are not available		
	a) Fever case screening- ASHA/ANM to use Integrated Disease Surveillance Programme (IDSP) fever case reporting as one of the indicators for screening fever cases for KA suspect. b) Operationalizing active case detection strategies for KA and PKDL. (below mentioned block wise table 6.2 for active search) c) Pre IRS camp at village level (twice a year) in villages identified for IRS (approximately 14,500 villages in all the endemic states) d) Camp at village level during inter	Instructions approved and issued in Aug' 2014	-MoH&FW/ NVBDCP -MD/ED State Health Society for approval and issuance of instructions to districts -States are responsible for implementation -WHO to assist in planning and monitoring if case search on the pattern of polio

	<p>IRS operations (twice a year) in the same villages or new villages added during previous camps</p> <p>e) KA fortnight (awareness drive) in all the endemic villages once a year</p> <p>f) House-to-house search in hotspot villages (villages where more than five cases detected in current/previous year)</p> <p>g) As and when KA case is detected (either active or passive), households and neighbouring houses of index case are searched</p> <p>h) House to house approach during other national campaigns (mass drug administration for Lymphatic Filariasis & Soil Transmitted Helminthiases, leprosy active case search, community need assessment, village health nutrition day etc) Incentive based approach is in place. Requires dissemination in the affected communities [above approaches are sufficient to capture most of the cases]</p> <p>i) Communication strategy to maximize early referral from private clinics</p> <p>j) Develop and disseminate short but effective SOPs for diagnosis and treatment of Kala-azar in public hospitals</p> <p>k) Conduct regular refresher orientations for doctors and other staff (task shifting) in public facilities to maintain a high degree of suspicion of finding Kala-azar cases.</p>		
	Case detection in children		
	<p>a) Anganwadi workers to prepare line list of absentees and other children (under five) due to prolonged fever, loss of weight, malaise, distended abdomen, malnutrition, darkening of the skin of face, hands, feet and</p>	<p>Immediate (Aug' 2014)</p>	<p>-MoHFW & Department of Women and Child Development -States responsible for</p>

	<p>abdomen</p> <p>b) Under Rashtriya Bal Swasthya Karyakram (RBSK) programme, school drop outs to be actively contacted for medical reasons of drop outs and during school health examination children Kala-azar is included in the list of diseases to search for.</p>		implementation
2	Use of standardized diagnostic kits and procedures (algorithms)		
	<ol style="list-style-type: none"> 1. Standard Operating Procedures and algorithms for diagnostics SoPs for KA and PKDL 2. Identification of health personnel and capacity building for task shifting and delegation of diagnosis under appropriate circumstances (eg. during camps etc) 3. District hospitals upgraded to undertake parasitological diagnosis for select cases as per operational guidelines <ol style="list-style-type: none"> a) Need assessment b) Identification of a nodal person & training c) Quality Assurance in place 	Aug' 2014	<p>-NVBDCP</p> <p>-SPO to compile line list of persons identified for task shifting and prepare training plan</p> <p>-DFID consortium to support training</p> <p>-RMRI/MSF responsible for training</p> <p>-DFID consortium to support district up gradation</p>
3.	Monitoring of drug stocks requires strengthening to ensure early flagging of potential stock outs		
	<ol style="list-style-type: none"> 1. Include drug stock data in the online HMIS 2. Cold chain maintenance monitoring 	Sept' 2014	<p>-States and CARE- initial training to data entry operator/data manager and roll out.</p> <p>-MOI/C PHC responsible for cold chain</p> <p>-DFID Consortium can assist for logistics</p>

6.2 Active case search planning in 39 high endemic blocks of Bihar and 22 high endemic blocks of Jharkhand and 2 high endemic blocks of West Bengal (annual incidence of more than 3 per 10,000 population (Dec'2014 -Jan' 2015))

<p>Araria, Forbesganj, Kursa Kanta (Araria), Dandari (Begusarai), Kiratpur, K Sthan (Darbhanga), Barauli, Manjha (Gopalganj), Dandkhora, Hasanganj, Pranpur, Sameli, Amdabad, Mansahi (Katihar), Gaihlar, Kishanganj, Gamharia (Madhepura), Bariyarpur (Munger), Bandra, Sahabganj, Paroo (Muzaffarpur), K Nagar, Sri nagar, B Kothi, Jalalgarh (Purnea), Simri, Bakhtiarpur, Salkhua, Son Bersa, Sour Bazar, Panchgachia, Mahisi, Patarghat (Saharsa), Samastipur (Samastipur), Parsauni, Bathnaha (Sitamarhi), Gorla kothi, Basantpur, Nautan (Siwan), Raghoupur, Mahua (Vaisahli)</p> <p>Jharkhand- Poraiyahat, Meharma, Mahagama, Boarijore, Sundarpahari, Pathargama, Godda (Godda), Maheshpur, Hiranpur, Littipara, Amrapara, Pakur (Pakur), Dumka, Jama, Shikaripara, Kathikund, Gopikandar, Ramgarh (Dumka), Borio, Barhait, Pathna, Talijhari (Sahibganj)</p> <p>West Bengal- Phansidewa, Kharibari (Darjeeling)</p>	<p>-These 63 high endemic blocks constitute more than 50% of cases</p> <p>-Same blocks will be repeated after six months (May-June 2015)</p>
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6.3 Rolling out of Liposomal Amphotericin B

- Single dose Liposomal Amphotericin B in 10mg/Kgbw introduced as the first line treatment regimen for KA at all health facilities where human resource (trained medical officer and nursing staff) and infrastructure available.
- Assessment of identified health facilities for cold chain maintenance (equipment, power back up etc)
- Upgrading identified health facilities to ensure sustainable cold chain
- Cold chain maintenance at all levels- in-country arrival, transportation to state store, district store, block level up to dispensing
- Identification and orientation of medical officer(s) for use of Liposomal Amphotericin B (at block level) and task shifting at block level under the supervision of a trained medical doctor
- Orientation of medical officer(s) at referral centre (district level)
- Recording and reporting adverse effects, if any

- Patient follow up- 6 months for KA
- Giving Liposomal Amphotericin B to right patients- (criteria for referral eg. HIV positive, relapses, severe renal disease, anaphylaxis)
- Miltefosine will continue to be used till roll out of Liposomal Amphotericin B takes place across health facilities

6.4 Criteria for selection of districts and blocks PHCs for Liposomal Amphotericin B roll out

The rapid implementation micro plan for Liposomal Amphotericin B across endemic districts will be based on block-wise incidence of disease as reported in 2013.

Phase 1: August-December 2014

- All districts (18) reporting block-level incidence >4/10,000 will have District Hospital upgraded as per above criteria
- All blocks (48) with incidence >4/10,000 will have PHC upgraded as per above criteria [Bihar-27, Jharkhand-19, West Bengal-2]
- Presently 70% of patients are accessing care either at the district hospital or sub-district hospital level. It is expected to cover about 30% of reported cases in Bihar, 84% in Jharkhand and 31% of West Bengal by end of 2014

Phase 2: January-April 2015

- All remaining districts (10) reporting block-level incidence >2/10,000 will have District Hospital upgraded as per above criteria
- All remaining blocks (61) reporting block-level incidence >2/10,000 will have either the block PHC or a nearby 'referral' block PHC upgraded as per above criteria
- Based on 70% of patients accessing care at the district hospital or sub-district hospital level, 42% of reported cases in Bihar, 11% in Jharkhand and 19% in West Bengal by March 2015
- By block level incidence alone, this will cover 90% of reported cases in Bihar by March 2015
- Remaining blocks with incidence >1/10,000 will refer patients to referral hospitals or nearby upgraded PHCs in endemic districts, >99% of reported cases in Bihar will be covered.
- Remaining district hospitals in endemic districts will be orientated and provided with Liposomal Amphotericin B for use.

Phase I (August-December 2014)	Phase II (January-March 2015)
Districts Hospitals (18)- Araria, Purnia, Siwan, Vaishali, Sitamarhi, Saharsa, Muzaffarpur, Munger, Darbhanga, Gopalganj, Katihar, Madhepura, Samastipur (Bihar), Sahibganj, Godda, Pakur, Dumka (Jharkhand), Darjeeling (West	Districts (10)- West Champaran, Sheohar, Supaul, Patna, Khagaria, Kishanganj, Madhubani, East Champaran, Begusarai, Blocks (61)- Chehra Kala, Bhagwanpur, Vaishali, Lalganj,

<p>Bengal) [Bihar-13, Jharkhand-4 and West Bengal-1]</p> <p>Blocks (46)- Araria, Kursa Kanta (Araria), Kiratpur, K Sthan (Darbhanga), Barauli (Gopalganj), Dandkhora, Hasanganj, Pranpur, Sameli (Katihar), Gamharia (Madhepura), Bariyarpur (Munger), Bandra, Sahabganj (Muzaffarpur), K Nagar, Sri nagar, B Kothi (Purnea), Simri, Bakhtiarpur, Salkhua, Son Bersa, Sour Bazar (Saharsa), Samastipur (Samastipur), Parsauni (Sitamarhi), Gorla kothi, Basantpur, Nautan (Siwan), Raghoupur (Vaisahli)</p> <p>Jharkhand- Poraiyahat, Meharna, Mahagama, Boarijore, Sundarpahari (Godda), Maheshpur, Hiranpur, Littipara, Amrapara (Pakur), Dumka, Jama, Shikaripara, Kathikund, Gopikandar, Ramgarh (Dumka), Borio, Barhait, Pathna, Talijhari (Sahibganj)</p> <p>West Bengal- Phansidewa, Kharibari (Darjeeling)</p>	<p>Mahua, Rajapakad, Jandaha, Mahnar, Sahdev, Bujurg Deshari, Patepur (Vaishali), Raghapur (Supaul), Barahria , Bhagwanpur (Siwan), Dumra, Bijapatti, Bathanaha (Sitamarhi), Sheohar, Dumri Katsari, Piprahi (Sheohar), Baniyapur, Marhoura, Amnaur, Mashrakh (Saran), Saharsa, Panch Gachiya, Mahisi, Patarghat (Saharsa), Purniya east, Dagaruwa, kashawa, Jalalgarh , K.Nagar, Shri Nagar, Banmankhi, Dhamdhaha, B.Koti, Bhawani Pur (Purnea), Kurhani, Marwan, Minapur, Motipur, Musahari, Paroo, Bochaha (Muzaffarpur), Jhanjharpur (Madhubani), Beldaur, Alauli (Khagaria), Manihari, Mansahi (Katihar), Manjha, Sidhwali, Baikunthpur (Gopalganj), Kasariya, Madhuban (E.Champaran), Dandari (Begusarai), Forbesganj, Bhargama (Araria)</p>
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6.5 PKDL

All probable cases of PKDL (patient from an endemic area with typical appearance and distribution of papules and nodules, and/or macular hypopigmentation, with or without a history of VL and a positive rapid diagnostic test) identified in the community will be referred to the PHC for RDT testing and if positive referred to district hospital level for confirmation of diagnosis and treatment. Incentivisation will be conducted as per previously intimated.

6.6 Micro-plan

No	Particular	Proposed action	Time line	Responsibilities
1	Rapid assessment of phase I- district hospitals and PHCs	-Approval from State/District health authorities - Need assessment -Assessment report to NVDBCP	-Aug'2014 -Aug'-Sept' 2014 -Simultaneously	By a team- Dist VBD officer, Implementation VL expert from consortium

2	Up gradation of health facilities	Development and SOPs for up gradation as per operational guidelines	Aug' 2014	NVBDCP
		Approval of SOPs	Aug' 2014	Per NVBDCP plan dated 25 July 2014
		Permission from national/state health authorities for upgrading	In parallel with assessment, not later than end of Sept' 2014	State health society
3	Actual up gradation	<p><u>District hospital-</u> -Capacity is created as identified in the operational guidelines for referral centres</p> <p><u>Block PHC-</u> - Capacity is created as identified in the operational guidelines for PHCs</p>	<p>-End of Dec' 2014 for all Phase I districts</p> <p>- End of Dec' 2014 for all Phase I blocks</p>	<p>-Consortium with the support of WHO and guidance of NVBDCP/State Health Society</p> <p>-Consortium with the support of WHO and guidance of NVBDCP/State Health Society</p>
4	Capacity building	Cascade of training for identified medical officers and teams	Aug'-Dec' 2014	Consortium with the support of WHO and guidance of NVBDCP

Particular	Proposed action	Time line	Responsibilities
HIV-VL co-infection	<p>-Guidelines and instructions in place for provider initiated counselling and testing (PICT) for all VL patients, assessment of all HIV patients in KA endemic areas for VL, initiation of ART (as per WHO VL guidelines 2010), management and coordination with HIV programme (CD4 count, ART, treatment follow-up etc), upgradation of district hospitals and medical colleges (similar to RMRI, Vaishali MSF unit) for management</p> <p>-Orientation of care givers on importance of diagnosis of HIV-VL</p>	<p>Sept' 2014</p> <p>Dec' 2014</p>	<p>-NACO/NVBDCP to develop protocol for multi-disciplinary case management guidelines</p> <p>-State AIDS Control Society</p> <p>-RMRI/MSF to act as referral centre for training and management</p>

6.7 Integrated vector management including indoor residual spraying (IRS)

6.7.1 Roadmap for indoor residual spray

IRS continues to be the mainstay in the battle to eliminate Kala-azar, and close attention must be paid to ensure both, coverage and quality to maximize the likelihood of elimination. Household surveys suggest that only two-thirds of vulnerable homes are currently covered, and that on a number of parameters the quality is less than desirable. The timing of spray across the Kala-azar endemic states differs from state to state. As per national policy any village reporting Kala-azar in last three years is eligible for IRS for transmission reduction.

State	Suggested Indoor Residual Spray time line	
	First round	Second round
Bihar	February-March	May-June
Jharkhand	February-March	May-June
West Bengal	February-March	May-June
Uttar Pradesh	February-March	May-June

Program acknowledges that spray coverage and quality varies over rounds and locations. This depends on factors like:

- Timeliness of release of funds from national, state and district level and submission of SOE/UC
- Timing of IRS
- Development of micro action plan
 - Targeted population
 - Targeted houses and rooms
 - Targeted cattle-sheds
 - Requirement of human resource for spray squads (one spray squad= five field workers+ one spray supervisor)
 - Selection of insecticides and spray pumps
 - Requirement of insecticides, spray pumps and related items
 - Training plan
 - Monitoring, supervision (including stakeholders) and evaluation
 - Plan for community awareness and mobilization

6.8 Release of funds is one of the requisite criteria for Kala-azar elimination.

Without a concerted effort to correct all the critical shortcomings, the effect of IRS operations may not rise to levels necessary to achieve and sustain elimination.

No	Components	Proposed Action	Timeline (completed by)	Responsibilities
1.	Timeliness of release of funds from centre, state and district level and submission of SOE/UC	-proposed action at all levels (District health society to ensure timely submission of SoE/UC, followed by SPO to ensure compilation and submission to State health society, followed by release of funds)	<u>Centre to state-</u> Dec' <u>State to districts-</u> January (funds released for both the rounds together)	- Approval of PIP/Admin sanction- NBVBD/CP/NHM -MD/ED State health society -DM/DC District health society -Concerned state programme officer will ensure timely submission of SOE/UC from district to state health society unit
2.	Timing of IRS	Adherence to the timing of IRS as per national policy	Bihar & Jharkhand: February-March and May-June West Bengal & Uttar Pradesh: April-May and July-Aug'	-ED/SHS -State SPO -District VBD officer (DMO) -Block MOI/C
3.	Development of micro action plan: Target population- Any village (including hamlets) reporting KA cases in the last three years are eligible for IRS. 100% of the affected village. All rooms up to 6 feet height. Full coverage of cattle sheds			
a.	Micro action plan	Block Micro-plan prepared and examined by district District Micro-plan prepared and examined by state State Micro-plan prepared and examined by NVBDCP	Block level: 120 days before IRS District level: 90 days before IRS State level: 60 days before start of IRS activities	MOI/C-responsible for block plan District VBD officer-responsible for district plan SPO-responsible for state plan -WHO-supportive supervision in quality of micro action plan

				-CARE- assistance in development of micro action plan
b.	Insecticide: DDT 50% -75mt/million population for two rounds (per round 37.5mt) and other recommended insecticide (reported DDT resistance)	-Insecticide requirement calculated -Road permit, transportation ensured -Handling, storage, distribution -Use of SP in second round in 2014 in district Muzaffarpur where DDT resistance is reported (per TAC recommendations)	State- 90 days in advance District- 45 days in advance Block- 30 days in advance	-letter/instructions from NVBDCP -SPO (all four states) - State Health directorate responsible for transportation (DFID consortium is willing to support) -District VBD officer (first) -Block MOI/C
c.	Spray Pumps- -Pilot of use of hand compressor pumps in one district - Documentation and submission of report of experience of use of hand compressor pumps and documentation (within 1 month of IRS) -estimates of pump requirement and supplies	-Development Partners can support in documentation and report writing -SPO to submit procurement plan to State Health Society and NVBDCP	-In second round in Sept' 2014 -four months in advance of first round of IRS -SHS gives sanction for procurement three months before IRS	-NVBDCP to issue necessary approvals to state -CARE has supplied 1,000 stirrup pumps and another 2,000 pumps are in pipeline. They may consider to supply in other states based on needs (CARE/BMGF)
d.	Selection of spray team members from locations close to targeted villages (wherever necessary)	Instructions issued to districts by SPO after due approvals from ED/MD SHS. Letter issued to MOI/C by CMHO/District VBD officer	-letter from state issued to districts three months before spray round -Instructions from district to block two months before IRS -Selection of team one months in	-ED/MD SHS to give approvals -SPO to issue letter to districts -CMHO to issue instructions to MOI/C -MOI/C to select appropriate teams in consultation with ANM, ASHA and VHSC

			advance	
e.	Training plan prepared	-Identification of trainers -Identification of trainees (new) and for re-orientation -Training plan prepared and communicated	Aug' 2014 or three months before first round of IRS	-MOI/C to identify team members -District VBD officer to compile block wise plan -SPO to compile district wise
e	1.Standardized training curriculum and material prepared	-Letter from NVBDCP to RMRI and State	Aug' 2014 or three months before first round of IRS	-RMRI to prepare training curriculum (audio-visual) -Development partners to support
e	2.Training programme -State level ToT -District level training -Block level trainings	-District to identify district trainers for training -Blocks to identify block level trainers -District and block trainers train team members	-Two months before first round of IRS -One month before IRS -To be finished 10 days before the IRS	-RMRI to train state level trainers - District VBD officers and MOI/C to monitor quality of training -Development partners and other stakeholders to identify districts and monitor trainings
f.	-Pre IRS awareness and search activities	-ASHA training material prepared three months in advance of training -Funds allocated in PIP	10 days in advance to IRS (minimum two days before IRS)	-NVBDCP to develop prototype training material for grass root level workers. Funds allocated to state -SPO transfers funds to districts -District transfer funds to blocks -MOI/C responsible for training -Partners (MSF, DNDi, LSHTM and DFID) will support cascade training of front-line workers and raise community awareness. -CARE will provide IEC material

g.	Supportive supervision and monitoring during IRS:	<ul style="list-style-type: none"> -SOPs related to management of spray operations to be adequately refined and disseminated. -First MO of PHC to be notified as nodal officer for vector-borne disease control -Other PHC staff to be given specific monitoring responsibilities during rounds -Development partners to work closely with program staff to support monitoring --Pilot use of Insecticidal Quantification Kits (IQK) and subsequent introduction for larger areas. 	Necessary instructions and guidelines to be in place by Sept' 2014	<ul style="list-style-type: none"> -NVBDCP to prepare a prototype and send to state -SPO to disseminate to all the districts -ED/SHS to issue letter to make first MO PHC as nodal officer -Use of IQK-RMRI and development partners to support piloting -RMRI/NVBDCP to be requested to expand monitoring of vector density and insecticide sensitivity studies -WHO will continue to do independent monitoring of IRS
h.	Micro plan quality: Wide variability in completeness and accuracy of IRS microplans	<ul style="list-style-type: none"> -Identification of targeted villages from existing records and reports -Examine learning opportunities from polio microplans 	120 days in advance of IRS	<ul style="list-style-type: none"> -Block Mo I/C responsible for block level list -District VBD officer for district level -SPO for state level lists -WHO to assist state in learning from polio plans
i.	Late payment of wages to spray workers	<ul style="list-style-type: none"> -Create/Register all workers bank accounts and activate online transfers of payments based on IRS completion reports. -Include IRS weekly reporting in the online MIS by squad and by worker 	Payment done for previous round within one month of spray activities	<ul style="list-style-type: none"> -Block MOI/C responsible for all the payments -District VBD officer to ensure timely release and monitoring of payments -WHO to generate information as per their monitoring mechanisms

4.	Utilize "Housing scheme for underprivileged" to make housing conditions less conducive for sandflies	<ul style="list-style-type: none"> -Health Department to recommend clusters of kuccha houses of eligible communities that have experienced high loads of Kala-azar for receiving pucca houses under housing schemes -List of villages/hamlets with high patient loads to be drawn up by State VBD Office -Expedite implementation 	By December 2014 line list of high burden prepared and disseminated to relevant departments	<ul style="list-style-type: none"> -District VBD officer to prepare line list -District Magistrate to review and take necessary actions -SPO to compile line list -Regular coordination meetings at state level
5.	Entomological surveillance -Entomological surveillance is weak. Out of 72 regional teams in India, only 35 are functional. There is a need to strengthen it	<ul style="list-style-type: none"> -Strengthening regional entomological teams -Creation of vector surveillance unit at district level by CARE -Building capacity of entomologist and creation of pool of experts 	Dec' 2014 March 2015 March 2015	<ul style="list-style-type: none"> -Approval from MoH&FW -CARE -DFID consortium

Besides above cited IRS activities, villages reporting KA cases also to be sprayed to eliminate the infected sandfly.

6.9 Surveillance, monitoring, supervision & evaluation

6.9.1 Areas related to surveillance and HMIS

With the program in elimination mode, real time data about the exact incidence by location is indispensable, as in the case of polio eradication. Data need to be obtained from different domains and facets:

- Data from private sector
- Strengthening surveillance for KA and PKDL including line listing of KA and PKDL cases at village level
- Monitoring progress towards elimination at block level
- To accurately identify hot spots and villages which have cases for IRS based on village wise line listing of cases (both KA and PKDL cases)
- Strengthening surveillance of VL-HIV cases
- Treatment follow up of KA and PKDL and information about relapses

No	Components	Proposed Action	Timeline (completed by)	Responsibilities
1.	<p>Implementation of revised HMIS</p> <p>The revised HMIS has been piloted successfully in two districts of Bihar</p> <p>The pilot in two districts indicates the need for fixing responsibilities of health staff at PHC for all HMIS related tasks</p>	<p>-Plan of action for complete implementation of the revised HMIS to be drawn up (in hard copies and formats)</p> <p>-Operationalization of online HMIS</p> <p>-To identify a staff at PHC for HMIS related entries and issuance of instructions, including to the block and district level computer operators to operate the online HMIS.</p> <p>-Training/orientation of identified staff</p> <p>-Complete implementation of revised HMIS across all the states</p>	<p>Aug' 2014</p> <p>-Guidelines to be issued in Sept' 2014</p> <p>-Oct-Nov' 2014</p> <p>Dec' 2014</p>	<p>-SPO and CARE</p> <p>-SPO</p> <p>-SHS</p> <p>-NVBDCP, SPO and CARE</p>
2.	<p>Implementation of regular Kala-azar elimination activities</p>	<p>-Guidelines to be developed and issued</p> <p>-National adaptation of M&E Indicators for elimination and IRS (as per WHO/TDR tool kit developed for India, Nepal and Bangladesh)</p>	<p>Aug' 2014</p> <p>Aug' 2014</p>	<p>-NVBDCP and partners responsible for development</p>
3.	<p>Monitoring from central level</p>	<p>-Six monthly review meetings at national level</p> <p>-Six monthly review at state level</p> <p>-Monitoring during IRS</p> <p>-Creation of State and district task force</p>	<p>October 2014- Delhi</p> <p>March 2015-Bihar</p> <p>- Bihar (Nov'2014)</p> <p>- Jharkhand (Dec'2014 & May 2014)</p> <p>Sept' 2014</p>	<p>-NVBDCP (supported by WHO)</p> <p>-NVBDCP (supported by WHO)</p> <p>-NVBDCP and SPO</p> <p>-NVBDCP to form a central team for routine visits</p> <p>-State Health Department</p>

6.10 Human Resources Issues

Kala-azar elimination program envisages sufficient human resource to support elimination activities. Currently, Government of India is committed in principle to continuing the additional contractual positions of human resources placed in concerned states. This resource includes Kala-azar Technical Supervisors (@ 6 per affected district), District and State level Vector Borne Disease Control consultants. Significant concerns persist in terms of vacancies, inadequate remuneration leading to high turnover, inadequate mobility support for field positions, and inadequate ownership and motivation among the health system functionaries for Kala-azar elimination. It is recognized that rapidly rectifying these gaps will be critical to making progress towards elimination.

No	Components	Proposed Action	Timeline (completed by)	Responsibilities
1.	State Programme Officer	-Dedicated SPO is required for programme implementation	-At the earliest	- Principal Secretary Health
2	District VBD Officer	All District VBD officers/District Malaria officers should be in place	Dec' 2014	-Principal Secretary Health
3	VBD Consultants	Advertising and filling the vacant positions of VBD consultants (Seeing the state of high attrition of VBD consultant , waitlist should be kept at least for a year)	Sept' 2014	-State health society
4	Kala-azar Technical Supervisors	All endemic blocks should have one KTS or equivalent -Advertising and filling the vacant positions of KTS (Seeing the state of high attrition of KTS, waitlist should be kept at least for a year)	Dec' 2014	-SHS and SPO -Consortium can support with this additional human resource (wherever gaps in the high endemic blocks over and above 6 KTS per district)
5	Other peripheral positions (malaria inspectors, BHW, BHI, SW etc)	Positions to be filled by the state on priority basis		-Principal Secretary Health

6.11 Capacity building of human resource at all levels

No	Components	Proposed Action	Timeline (completed by)	Responsibilities
1.	ASHA cascade	Orientation in suspect referral, treatment, and follow up	By March 2015	ASHA management unit at block, district and state level Development partners can support
2.	KTS	10 days training to new KTS and one day re-orientation in M&E including IRS supervision, suspect referral, treatment, and follow up	Oct 2014	-10 days training by RMRI -District VBD officer/consultant for re-orientation to existing KTS
3.	Link worker (CARE)	Orientation in M&E including IRS supervision, suspect referral, treatment, and follow up	Oct 2014	-Training by CARE and District VBD officer/consultant for programme management
4.	District VBD consultant	30 days training to newly recruited and one day re-orientation in M&E including IRS supervision, suspect referral, treatment, and follow up	Dec 2014	RMRI and concerned states
5.	District VBD officers and State SPOs	3 days orientation training on KA elimination and programme management	Nov-Dec 2014	Directorate NVBDCP at state level
6.	District Collector/Magistrate	1 day on KA programme management in two batches	Nov-Dec 2014	Directorate NVBDCP at state level with development partners
7.	Development partner's meeting on road-map	Meeting at national level	Sept' 2014	Directorate NVBDCP with development partners
	Regional meeting of	Two meetings of one	Sept' 2014	Directorate

8.	VBD officers	day at Patna and Kolkata	and March 2015	NVBDCP, states with development partners
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6.12 Advocacy, communication and social mobilization

No	Components	Proposed Action	Timeline (completed by)	Responsibilities
1.	Prototype material	National programme with support from development partners will develop prototype material for community sensitization, prevailing schemes and incentives, media component (radio messages and jingles, newspaper), wall painting, banners, posters, visual, flip charts etc	Already available on the website	-Directorate NVBDCP -States to print and disseminate -Development partners and consortium can provide large scale dissemination of approved materials.
2.	Assessment of IEC/BCC material and reach	Through third party	Yearly	-NVBDCP and States
3.	National workshop to introduce, standardise and discuss IEC/BCC strategy	Through NVBDCP, using existing materials and experts	Dec' 2014	Consortium to assist with funding and implementation under NVBDCP guidance

6.13 Programme management

Financial and logistic- For any public health programme release of funds is one of the main tools bringing effectiveness in implementation and monitoring of strategies. Government of India provides 100% cash assistance to meet personnel cost of wages, mobility and provides grant in aid for carrying out KA activities and in kind support in the form of supply of diagnostics, drugs and insecticides. On the basis of approved state's PIP, GoI releases funds to state in instalments. States in turn releases funds to districts on the basis of district specific action plan. Submission of SoEs and UCs is must for regular release of funds at periodic interval. This is important for carrying out the activities proposed in action plan. The state programme officer is to ensure that SoEs and UCs are submitted to the state health society in time.

It is often seen that SOE and UCs are not being submitted by the blocks to the district in time which results in delay in release of funds and inter alia effects the

programme implementation. The below mentioned table indicates the timeline on release of funds from national to state and districts.

No	Issues	Proposed Actions	Timeline	Roles and Responsibilities
1.	Submission of PIP	As per approved FMR code	Feb'-Mar'	Concerned nodal officer of state and SPM, state health society
2.	Approval of PIP/RoP	Discussion at NPCC meeting and finalized in ROP meeting	Jun'-Jul'	National and state NHM members
3.	Release of funds	-In two instalments based on balance available -Administrative sanction for carry forward of previous year's fund -Instruction from NHM to use balance fund for VBD	Jul'-Aug' & Dec'-Jan' Apr' Apr'	-MoH&FW - MoH&FW -SHS to districts and within 15 days district to blocks

No	Components/ Issues	Proposed Action	Timeline (completed by)	Responsibilities
1.	Creation of KA elimination cell at NVBDCP and at the state	-Elimination cell should comprise of 4 personnel- one public health expert, one M&E expert, one vector specialist and one statistical expert	Sept' 2014	-MoH&FW -Development partners may support at national and state level
2.	Elimination mode: The state programme, district VBD officers and Block MO I/C should be vested with more powers	-SPO is proposed to handle up to 5 lakh with co-signature with State Programme Manager NHM on the same pattern of Chief Medical and Health Officer (CMHO) and District Programme Manager (DPM) as co-signatories at the district level -Similarly District VBD officer should be co signatory with Chief Medical and Health Officer (CMHO) for smooth fund transaction -Guidance to procure drugs and diagnostics from Rogi Kalyan	Sept' 2014	- MoH&FW and SHS

		Samiti as and when required - State Health Directorate should be allowed to take decision on inter-state transportation of commodities.		
3.	Human resource availability: 30-40% posts of the key district VBD officers are vacant -State and district contractual positions: 20-30% posts not filled due to lengthy recruitment process and high attrition	-To adjust TORs as per state specific availability of human resource -In case non joining or attrition of selected candidates then selection from waitlisted candidates -Keeping waitlist valid till one year -Identification of blocks where additional human resources are required from partner support	Sept' 2014	-State secretariat for regular posts -SHS for contractual position -Partners to consider support
4.	Planning and M&E: - Gol provides funds to states for carrying out routine M&E activities, hiring of vehicles and accelerated fund during IRS operation up to block level through districts	- Computers with accessories at district VBD and state office (including computer table, chair etc) either from NHM or through development partners -Revamp of district VBD office under NHM -Monthly meeting with District Magistrate, and six monthly at state level	Dec' 2014 Dec' 2014	-National Project Coordination Committee (NPCC) -NHM/SHS/Partners -NHM/SHS/Partners
5.	Financial: Financial guidelines exist but not followed. No clarity in books of account, district financial person is not	-Financial training of one day for all financial assistants of districts and state -At least quarterly review meeting of finance nodal persons at district level and biannual at state level (to be merged with routine review of KA	Dec'2014	-Finance division State Health Society (or an external finance expert can be hired)

	trained Wide communication gap within programme financial wing and NHM	programme)		
5.	Role of district health administration:	Constitution of district KA co-ordination committee under chairmanship of district collector including CMHO/CS, district VBD officer (member secretary), Block MOI/Cs, District Education Officer, Block Development Officers (endemic blocks), ICDS, rural development officer, DPRO	-One month before IRS and at the completion for any mid- course correction -Monthly technical review meeting by DM/DC. -IRS will be directly supervised by district administration	District Magistrate
6.	Incentives, schemes and provisions: presently Gol provides Rs 50/day to KA patient for loss of wages during 28 days Miltefosine treatment period and Rs 300 to ASHA upon completion of treatment of KA patients			
a.	Timely payment of incentives and provisions for KA patients	-Online bank accounts of ASHAs -Regular financial monitoring during monthly review meetings with District Magistrate		-Gol to issue letter for role of District Magistrate
d.	State specific schemes and provisions	To continue as declared by respective states		
7.	Patient referral and transportation			
	Critically ill	Children up to 15 years to be covered under RBSK (all KA services free)- KA to be added in the list of conditions -Individuals above 15years will be transported by free referral system or Rs 500 for to and fro transportation-to be met from RKS	Immediate	- MoH&FW for approving the revised incentives and provisions -Block MO I/C responsible for transportation and referral

		-All pregnant KA women to be covered under JBSY (all KA services free)		
9.	Engaging private sector	-District wise identification of private health professionals, labs and pharmacies providing diagnostic and treatment facilities -Formally assess and develop strategy that integrates the private sector by ensuring high quality awareness and diagnostics are available, with compulsory reporting, and referral into the public sector for treatment.	Sept' 2014	SPO to issue a letter to districts -District VBD officer to implement -NVBDCP and partners

6.14 Stakeholders in the programme

Presently Kala-azar programme is having assistance and support from national and international partners. These stakeholders are-

- Rajendra Memorial Research Institute (RMRI), an ICMR institute
- WHO
- Regional office of Health & Family Welfare, Patna, Kolkata, and Lucknow
- Patna Branch of National Centre for Disease Control (NCDC)
- State Institute of Health & Family Welfare, Patna, Ranchi, Kolkata and Lucknow
- All India Institute of Hygiene and Public Health (AIIPH), Kolkata
- BMGF/CARE
- DFID consortium consisting of
 - Drugs for Neglected Diseases Initiative (DNDi),
 - London School of Hygiene and Tropical Medicine (LSHTM),
 - Médecins sans Frontières (MSF) and
 - HLSP (with HLSP holding the DFID contract)
- DNDi
- B-TAST
- PATH
- World Health Partners (WHP)

No	Stakeholder(s)	Current role/Inputs	Future roles and responsibilities
1	RMRI	-Training of District VBD consultants and KA	Same

		<p>Technical Supervisors (KTS) in KA and spray workers in IRS</p> <ul style="list-style-type: none"> -Operationalization of sentinel sites (information on efficacy of treatment regimen) -Pharmacovigilance of available KA drugs and quality assurance of RDK -Susceptibility status of vector and development of insecticide quantification kit (IQK) and data management monitoring system -Policy advice through primary and operational research -Monitoring & supervision of KA elimination -Management of treatment failures 	
2.	CARE/BMGF	<ul style="list-style-type: none"> -Situational analysis of KA disease burden in 8 districts of Bihar (unpublished) -Presently supporting the programme through additional human resource support in Bihar- District Prog. Manager in 33 districts, Approximately 500 link workers (equivalent to Kala-azar Treatment Supervisor (KTS)) -Assistance in logistics support eg. 1000 Stirrup pumps, 50,000 RK39 -Monitoring during IRS -Training and establishing 	<ul style="list-style-type: none"> -Entering into MoU for similar support in the state of Jharkhand. In future support to West Bengal may also be extended -Another 2000 stirrup pumps to be supplied -Establishing vector surveillance units in all 33 endemic districts of Bihar and proposed in Jharkhand -Launching of online HMIS (Bihar) -GIS mapping of KA cases

		<p>HMIS</p> <p>-Monitoring of daily reporting of IRS through mobile application</p>	
3.	DFID consortium	<p>Constituted by DNDi, MSF and London School of Hygiene and Tropical Medicine (LSHTM); all have long history of working in VL control in India.</p>	<ul style="list-style-type: none"> -Support the programme in scaling up of Liposomal Amphotericin B, upgrading facilities -Strengthening cold chain and logistics -Capacity building of state level health staff, build the pool of regional entomologists -Support national programme and state programme in M&E activities through provision of dedicated HR -Develop strategy for private sector referral to public sector -Operational research on PKDL, VL-HIV, vector control surveillance -National and international cross border monitoring & surveillance and inter country workshops -Organization of stakeholders meetings -Epidemiological surveillance -Support on IEC/BCC materials, printing and dissemination -Any other support in achieving and sustaining VL elimination as requested by the Government of India, NVBDCP and State Health Societies

4.	WHO	<ul style="list-style-type: none"> -Formulation of policy guidelines, norms and standards -Technical support in KA programme implementation at National and State level (through four state coordinators) -Independent monitoring of IRS activities -M&E (through Joint monitoring missions and field visits) -Liposomal Amphotericin B supply 	Same
5.	DNDi	<ul style="list-style-type: none"> -Research into clinical drug trials -Training to Medical Officers and Para-medical staff on newer drugs with the help of RMRI and MSF 	Same
6.	PATH		Proposed to establish pharmacovigilance through National Pharmacovigilance programme
7	Regional Branch of NCDC, Patna	<ul style="list-style-type: none"> -Support on M&E during IRS -Vector surveillance -Operational research 	Same
8	AIH&PH	<ul style="list-style-type: none"> -M&E of KA elimination (including IRS) 	Same
9	Regional office of MOHFW	<ul style="list-style-type: none"> -Coordination with states -Monitoring & supervision 	Same
10	WHP	<ul style="list-style-type: none"> - Surveillance and diagnosis through sky centres 	Same
11	MSF	<ul style="list-style-type: none"> -Curative support to KA, PKDL and VL-HIV 	Same

		<p>patients through five PHCs and district hospital unit as pilot project in district Vaishali (since 2007)</p> <ul style="list-style-type: none">-Training to MOs and para medical staff-Dissemination of IEC/BCC material-Implementation of combination regimen at PHCs and single dose Liposomal Amphotericin B at districts hospital in seven identified districts with partners	
12	B-TAST	<ul style="list-style-type: none">-Social mobilization with community voucher scheme-ASHA training as a composite plan	Same

7. Timeline of activities

Time line	Responsibilities	Proposed action
Aug' 2014	<p>NVBDP</p> <p>State VBD office</p>	<ul style="list-style-type: none"> -Operational guideline of KA to be revised and issued -National roadmap developed and endorsed by core group -Funds approved for KA activities -Roll out plan for Liposomal Amphotericin B prepared and communicated to states -Capacity building including training plan for health personnel in use of Liposomal Amphotericin B prepared and approved -IEC/BCC material prototype developed by NVBDP and printing by state /CARE communicated to states -Communication to all the stakeholders about KA elimination roadmap plan -Presently SPO does not have financial power therefore delegation of powers to State health directorate and SPO -Draw monitoring plan for second round of IRS in Sept' 2014 and communicate to states -Incentives and schemes approved and communicated -Use of synthetic pyrethroid in respective states where DDT resistance reported -The uniform use of only RK39 across the state -National roadmap received and communicated to all the districts -Operational guidelines received from centre and communicated to all the districts -Initiate actions based on national and state roadmap of KA elimination -Issue acceptance letter to partners for assessment of cold chain maintenance facilities at PHC -Complete all the activities for second round of IRS in Sept' 2014; assumed that funds to all the districts released -Initiate action on transportation of synthetic pyrethroid for use in DDT resistance districts -Completion of a review of the vacant positions and plan for filling up submitted to state health society -Preparation of rationalization of KTS to adequately cover highly endemic blocks, gap analysis and raising additional KT's with development partners Involvement of District Collectors -Preparation of the district wise vacancies, as per the reservation criteria, by the Chief Malaria Office and submission to the ED Office. -Advertisement and filling of the vacant positions of the KTS's -Drawing up of a plan of action for the complete implementation of the revised HMIS -Identification of specific staff in all public facilities for specific HMIS related tasks, and issuance of guidelines

	<p>CARE</p> <p>DFID consortium</p>	<p>accordingly</p> <ul style="list-style-type: none"> -Complete the process for Liposomal Amphotericin B supply -Initiate request for additional supplies -Recruit four state coordinators in NTDs -Plan for independent monitoring of IRS for the second round in Sept' 2014 -Complete HMIS training -Roll out of HMIS started -Recruitment of district vector surveillance unit initiated -Supply of 50, 000 RK39 completed -Supply of additional 2,000 stirrup pumps completed -MoU signed with Gol and state of Bihar -Assess health facilities for cold chain maintenance -Submit the report to Gol and state governments -Initiate the upgradation of cold chain and capacity building programme of different level of health functionaries in use of Liposomal Amphotericin B
Sept' 2014	<p>NVBDCP</p> <p>State VBD office</p> <p>District health administration</p> <p>All other stakeholders</p>	<ul style="list-style-type: none"> - Dissemination of operational guidelines workshop & reviewed - State and Stakeholder's meeting for dissemination of national roadmap of KA elimination - PIP and necessary administrative approvals issued -IRS monitoring plan executed; central team monitoring IRS activities -Approval of use of hand compressor pumps in one district -Monitoring and documentation of hand compressor pumps -Sharing of the report of hand compressor pump and observations on effect of synthetic pyrethroid in one district -Execution of second round of IRS activities -Compilation of daily reporting of IRS activities -Coordination with State health society and districts to support all the logistics and supplies -Draw up plan for PHC upgradation for cold chain and capacity building of health personnel -Prototype IEC material received and process for printing initiated; actions initiated for local displays of messages etc. -Vacancy advertisement for filling up the remaining posts initiated -Role of district administration defined and communicated -District administration initiated the IRS monitoring -Feedback given to state and necessary local corrective

		<p>actions taken</p> <ul style="list-style-type: none"> -IRS monitoring, supervision, trainings, assistance in supplies and logistics continued -Piloting of Insecticide quantification kit in selected districts
Oct' 2014	<p>NBBDCP</p> <p>State VBD Office</p> <p>CARE</p> <p>DFID consortium</p>	<ul style="list-style-type: none"> -Review meeting at regional level to assess the progress of KA elimination -Monitoring of scaling up of Liposomal Amphotericin B -Process of recruitment initiated for filling up of remaining posts -Printing of IEC material initiated -Planning for first round of IRS 2015 initiated -Letter issued for incentives and schemes and funds disbursed to all the districts -Pre IRS search activities and awareness drives -Vector surveillance units in all endemic districts in place -Monitoring of KA elimination activities- case detection campaigns, surveillance -HMIS operational in all the districts -Scaling up of Liposomal Amphotericin B in progress -Upgrading of health facilities in progress -Capacity building of medical officers and support staff in progress -Stakeholder's meeting planned -Printing of IEC material initiated -Development of pool of entomologists initiated
Nov' 2014	State VBD Office	<ul style="list-style-type: none"> -The Refinement of SOPs related to management of spray operations, and dissemination to all PHCs. -Order of designating the First Medical Officer of PHCs as nodal officers for vector-borne disease control programme to be issued. -Rigorous training for supervisory staff (DMOs, ACMOs, MIs, VBD consultants) on the areas of supervision and monitoring. -The Issue of order for Pre IRS IEC monitoring to be done by CS/ ACMO/ DMO/MOIC. -The Issue of an order for the mobility allowance (POL & Vehicle hiring expense) given to the DMO to be doubled to Rs 1500 per day, for the duration of the IRS round. -The Issue of order for KTS to be given additional mobility allowance during IRS rounds (@ Rs 2000 extra per month additional) -The Issue of order for Other PHC staff such as BHE, BCM to be given specific monitoring responsibilities during rounds. -Independent third party monitoring continued. -Micro-action plan compiled from all the districts and examined -Feedback on micro-action plan initiated

		-Funds released to districts for both the IRS rounds of 2015
Dec' 2014	NVBDCP State VDB Office	-Issuance of letter for active case detection campaigns -Issuance of comprehensive guidelines for VL-HIV case management issued by NVBDCP/NACO -Active case search in high endemic districts- both for KA and PKDL -Strengthening of surveillance system -Training of medical officers, Para-medicals and ASHA in progress -Comprehensive guidelines for VL-HIV case management received and issued to districts by State
Jan' 2015	NVBDCP State VDB Office	-Issuance of letter for review meeting, plan of action and insecticide requirement -Case based tracking of VL-HIV patients discussed and finalized -letter issued to states in this regard -Active case search in high endemic districts- both for KA and PKDL -Strengthening of surveillance system for KA and PKDL -HMIS online started -Case based tracking of all VL-HIV patients initiated -Micro-action plan examined at all levels -Insecticide procured -Training of medical officers, Para-medicals and ASHA in progress -Comprehensive guidelines for VL-HIV case management received and issued to districts by State
Feb' 2015	State VDB office	-Pre IRS training of spray squads -Pre IRS awareness and search activities -Actual IRS spray operations -Concurrent evaluation of IRS -Medical officers training in KA and Liposomal Amphotericin B use -Active case search continued for KA and PKDL -Engagement of ASHA in case referral and follow up
Mar' 2015	NVBDCP State VDB Office	-Issuance of letter for review meeting -Post IRS monitoring meeting and feedback to states -Second stakeholders' meeting -Active case search in high endemic districts- both for KA and PKDL -Action taken on feedback of IRS monitoring and KA elimination activities -Strengthening of surveillance system for KA and PKDL -Case based tracking of all VL-HIV patients and treatment follow-up of PKDL cases --Training of medical officers, Para-medicals and ASHA

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		in progress -Roll out of Liposomal Amphotericin B is complete in all the high endemic districts
April-June 2015	State VBD Office	-Plan for second round of IRS initiated -Micro-plan examined and corrective actions taken -ASHA and other health workers trained in IRS and M&E
July-Aug' 2015	NVBDP	-Third party evaluation of status of elimination in all the four states

8. Roles and responsibilities of the Centre and State Governments

Central Government	State Government
Formulation of policy and Technical guidelines	Dissemination of GOI guidelines to districts and periphery for timely and regular implementation of KAE activities.
Technical and financial assistance	Adequate provision of annual budget from state resources of KAE.
Logistic & commodity support	Preparation of Road map and contingent plan to achieve national objective of KAE.
Facilitate in infrastructure and capacity building of medical and para-medical workers	Ensuring sanitation, hygiene and healthy environment in an around Kala-azar affected villages/blocks.
Prototype of IEC/BCC materials.	IEC/BCC campaign for increasing awareness and education regarding general sanitation & hygiene, timely treatment, health seeking behavior and full community participation during IRS activities.
Supervision and monitoring of implementation of policy and guidelines of GoI for KAE	Implementation of programme activities in respect of:
Others – cross border meetings	<ul style="list-style-type: none"> a) Surveillance of Kala-azar cases b) Prompt detection and treatment with drug of choice of Kala-azar cases. c) Enhancing the capacity of CHC, Sub-district and district hospitals for Kala-azar treatment with proposed drug regimen. d) Strengthening of district hospitals and medical colleges for referral back-up support. e) Effective mechanism for supervision and monitoring to ensure implementation of action plan. f) Timely organization of Kala-azar and PKDL camps search and ensuring their treatment.
	KAE target is to achieve by 2015, commitment and strong focus from all stakeholders is required to meet these targets.

9. Roles and responsibilities of District Collectors/Magistrate

9.1. Early diagnosis & complete treatment

Action required from District Administration

It would be of great help to the programme, if the personnel from the administration working in the rural set up for collecting revenue and undertaking developmental programs are identified and trained for helping the system in identification of the Kala-azar cases and maintaining a close liaison with ASHAs and other workers for quick referrals with complete treatment.

In the monthly Village Health Nutrition & Sanitation Committee, an awareness programme on kala-azar Elimination for the community be included with a clear message that anybody suspecting a Kala-azar case immediately reports the same to ASHA and other Health personnel.

9.1.1 Strengthening of referral

Under the present system PHC is the nearest referral for detection and treatment of the Kala-azar case besides CHCs and District Hospitals. Under this system all the referral health centers are equipped with manpower, number of Rapid Test Kits as well as the requisite drugs. However, it needs to be ensured that all the above facilities are available at these centers so that the cases referred are do not remain untreated or incompletely treated.

Action required from District Administration

The adequacy of the manpower, diagnostic test kits and drugs at all the referral centers be ensured through periodic review

by the identified officers. At no point of time the patient should be left untreated /unattended. ASHAs and other health personnel are required to be motivated for sincerely taking of the responsibility of case identification and early referrals as well as complete treatment.

9.2 Integrated vector control

Under the programme a dedicated IRS of all the households in the affected blocks system is to be carried out as per NVBDCP guidelines. The 1st round of insecticidal spray with DDT starts from 15th February. Government of India supplies DDT free of cost and the cost of spray wages is also borne by Gol. It has been observed that the room coverage which should touch more than 90% is not upto the mark due to lack of acceptance by the community. This is primarily due to lack of advance information to the community by the health system prior to scheduled date of spray. As a result of which the community is under prepared for acceptance the spray. It has also been observed that wherever a satisfactory room coverage (80-90%) is achieved, the incidence of the disease is reduced.

Action required from District Administration

An aggressive social mobilization campaign aimed at spreading the information on the usefulness of IRS is urgently required for creating awareness amongst the masses which will in turn significantly increase the room coverage for better results. Gol has provisioned funds under IEC to be used by the states. Therefore, a realistic IEC/BCC action plan has to be developed in consultation with the subject experts available at state /district level so that the desired IEC campaign through IPC, print & electronic media while taking into consideration the media habits of the community, is

designed and developed for perfect canvassing. During IRS operation, officers from other department may also be involved for supervision. The hands on training will be provided by District Vector Borne Disease Officer (erstwhile DMO).

9.3 Environmental measures

It has been observed that the vector of Kala-azar sandfly usually lives in dark, humid and invalidated hutments with where the soil is moist. This vector also breeds profusely in an around the hutments in moist cow dung hips and in places where insanitation and unhygienic conditions galore. Simple measures of sanitizing the areas and improving the design of the hutments by cementing the floors and plastering of walls upto 6 feet will go a long way in drastically reducing the vector densities which will in turn have a great epidemiological impact.

Action required from District Administration

Ministry of Rural Development has released funds for construction of Pucca Houses in Kala azar endemic areas under 'Indira Awas Yojna". The Mushar and Paswan communities are at a greater risk due to poor housing structure/ condition. It may therefore be ensured that the funds available with district Administration be utilized for constructing pucca houses /renovating the existing hutments to make them pucca thereby reducing significantly the presence of sand flies as well as in helping to interrupt Kala-azar transmission.

10. District level activities

10.1 Formation of district level Kala-azar elimination (KAE) committee

It would be a great help for all the stakeholders if a District Level Kala-azar Elimination Committee under the Chairmanship of District Magistrate /Collector with District Programme Officer (VBD) as its Member Secretary alongwith other technical members is constituted. The main thrust of this Committee would be to closely monitor the KAE activities in the field and suggest immediate corrective measures. This Committee should meet at least once in a month to take stock of the situation and sub members of this committee should be advised to visit the field for providing a pragmatic feedback to the Chair person.

11. Time line for Kala-azar Elimination

11.1 National level actions

- Programme management

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Policies	Formation of Core group	Already done in July	MoHFW	
Policies	Revision of guidelines	Aug' 2014	MoHFW	MoHFW
Policies	strategies of Kala-azar elimination cell at central programme division comprising of public health expert, monitoring and evaluation expert, vector control specialist and statistician cum data manager	Sept' 2014	MoHFW	MoHFW
Policies	Monitoring of stakeholders	Aug' 2014	MoHFW	NVBDCP
Policies	Roll out of revised HMIS to all areas	Dec' 2014	NVBDCP	NVBDCP
Policies	WHO M&E indicators and IRS toolkit	Aug' 2014	MoHFW	NVBDCP
Review	Core group 1 st meeting	July 2014	MoHFW	NVBDCP
Review	2 nd Core group meeting proposed	Sep. /October 2014	MoHFW	NVBDCP
Policies	Upgradation of cold chain	March 2015	DFID	DFID, NVBDCP

- Vector control (indoor residual spray)

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Fund flow	Status assessment of SOE and requirements	Sept' 2014	MoHFW	NVBDCP
Fund flow	Release of funds to state	Oct'	MoHFW	NVBDCP
IRS campaign	Supervisory visits by assigned officers to the field	Throughout the year	MoHFW	NVBDCP & Partner
Training	Orientation training for IRS	Sept' 2014	RMRI	RMRI
Mobilization	Dessimation of IEC prototypes	Sept' 2014	NVBDCP & development partners	NVBDCP

• **Monitoring and evaluation**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Fund flow	Monitoring of fund distribution at national, state, district, block and squad level	Regular	NVBDCP /state	
Fund flow	Monitoring of submission of SOE/UC	Regular	state/NVBDCP	
Cold Chain	Cold chain mapping		WHO /Partner	

• **Surveillance/treatment**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Policies	House to house survey (either on polio model or other mechanisms) for active case search & PKDL in villages, BCC and advance information about IRS with monitoring support form stakeholders.	Dec' 2014	NVBDCP /development partners	NVBDCP
Case detection	Revision and disseminate short but effective SOPs/case management flowchart for diagnosis and treatment of Kala-azar for PHCs and private health facilities in view of new treatment policy	Sept' 2014	NVBDCP/Development partners	NVBDCP states
Case detection	Coordination with NACO for HIV-VL treatment guidelines and data sharing	Sept' 2014	NACO /NVBDCP	States

11.2 State level actions

- **Programme management**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Human Resources	Filling vacant positions on priority	Dec' 2014	State Health Society	SHS
Policies	Filling of consultants approved by NVBDCP.	Dec' 2014	State Health Society	SHS; Development partner
Review	State Task Force constitution	Sept' 2014	State Health Department	PS Health
Review	STF meeting: 1 month prior and on completion of IRS activities. Quarterly meetings for assessing other components.		State Health Department	PS Health
Training	Induction/refresher training of District VBD Officer VBD consultants, KTS, Care link workers	Dec' 2014	NVBDCP	RMRI
Training	1 day sensitization of District Magistrates at state level	Dec' 2014	State Health Deptt.	ED SHS

- **Vector control (indoor residual spray)**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Fund flow	Allocation and release of funds to districts	Two months in advance to IRS	State Health Society	SHS
Fund flow	Submission of SOEs to national level	As per existing instructions	State Health Society	SHS
Supervision	Plan for allocation of state nodal officer for contiguous 4-5 districts by state officers for oversight in microplanning and training & supervision	Sept' 2014	State Health Society	PS Health
Supervision	Supervision plan during IRS	Sept' 2014	State Health Society	PS Health
Mobilization	Printing and dissemination of IEC material	Nov' 2014	DFID consortium Development partners	State/DFID consortium Development partners

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Mobilization	Print & electronic media sensitization and use in community mobilization	Nov' 2014	DFID consortium Development partners	State/ DFID consortium Development partners
Mobilization	Print & electronic media sensitization and use in community mobilization	Nov' 2014	State Health Department	PS Health
IRS campaign	Supervisory visits by assigned officers to the field	Before and during IRS	State Health Department	PS Health

- **Monitoring and evaluation**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Review	Feedback to STF on monitoring findings	During IRS	State Health Dept.	PS Health
IRS campaign	Providing monitoring feedback to STF	During IRS	State Health Dept.	PS Health

- **Surveillance/treatment**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Training	Up-gradation of district hospitals to undertake parasitological diagnosis	Dec' 2014	RMRI MSF	RMRI MSF
Case detection	Compile and maintain linelist of all Kala-azar & PKDL cases reported by districts with complete address, treatment details and outcome	Dec' 2014	State Health Society	SPO
Case detection	Sharing the linelist of Kala-azar and PKDL cases with NVBDCP	Dec' 2014	State Health Society	SPO

11.3 District level actions

- Programme management

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Review	DTF meeting: 1 month prior and on completion of IRS activities. Quarterly meetings for assessing other components.	1 month before IRS	District Health Society	DM
Training	Training of block and district level data operators regarding coverage, transmission, drug and diagnostic kit data entry	Immediate	State	Care/Development partners

- Vector control (indoor residual spray)

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Fund flow	Release of funds to blocks	Continuous	District Health Society	DM
Fund flow	Submission of SOEs to state	Monthly	District Health Society	DM
Microplanning	Compilation and reviews of microplans	As per instructions	District Health Department	Dist VBD Officer
Microplanning	Submission of final microplan to state level with logistic requirement 90 days before IRS	90 days before IRS	District Health Department	Dist VBD Officer
Supervision	Allocation of blocks to district officers for oversight in microplanning and training	90 days before IRS	District Health Society	DM
Supervision	Supervision plan during IRS	90 days before IRS	District Health Society	DM
Training	Supervision of trainings	As per plan	District Health Department	Dist VBD Officer
Training	Training of trainers (TOT)	As per plan	District Health Department	Dist VBD Officer
Mobilization	Display of IEC material	Pre IRS and during campaigns must, wall writing throughout	District Health Department	Dist VBD Officer
Mobilization	Distribution of IEC material to block	As per plan	District Health Department	Dist VBD Officer
Mobilization	Using local news networks for IEC	As per plan	District Health Department	Dist VBD Officer
Mobilization	Assist in display of IEC material	As per plan	Care	Care
Mobilization	Assist in distribution of IEC material to block	As per plan	Care	Care
Mobilization	Assist in using local news networks for IEC	As per plan	Care	Care

Mobilization	Coordination with education department in DTF for organization of guru goshtis and rallies prior to IRS campaign	As per plan	District Health Society	DM
IRS campaign	Supervisory visits by assigned officers to the field	During IRS	District Health Society	DM
IRS campaign	Daily compilation of coverage reports and communication to state level	Within a month of IRS	District Health Department	Dist VBD Officer

• **Monitoring and evaluation**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
IRS campaign	Providing monitoring feedback to DTF	Pre and post IRS	District task force	District VBD Officer
Review	Feedback to DTF on monitoring findings	Pre and post IRS	State Health Society	District VBD Officer

• **Surveillance/treatment**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Case detection	Refresher on Kala-azar detection and notification	Dec' 2014	District Health Department	Dist VBD Officer
Case detection	Enlisting important health facilities in private setup by KTS/Care link workers	Dec' 2014	District Health Department	Dist VBD Officer
Case detection	Allocation of government and private health facilities to KTS/Care link workers for active case searches and sensitization	Dec' 2014	District Health Department	Dist VBD Officer
Case detection	Coordination and dissemination of sensitization through letters and meetings by IMA	Nov' 2014	District Health Department/IMA	Dist VBD Officer
Pharmacovigilance	District hospitals to follow national pharmacovigilance protocol	Nov' 2014	NVBDP PATH	NVBDP PATH

11.4 Block level actions

- **Vector control (indoor residual spray)**

Components	Activities	Timeline	Responsible Organization	Responsible person
Microplanning	Selection of villages based on cases	120 days before IRS	PHC	MOIC
Microplanning	Updation/preparation of microplan as per IRS guideline	120 days before IRS	PHC	MOIC
Microplanning	Submission of microplan to district with logistic requirement 120 days before IRS	120 days before IRS	PHC	MOIC
Microplanning	Facilitating microplanning	120 days before IRS	Care	Care
Fund flow	Distribution of allowance to spray workers	As per plan	PHC	MOIC
Fund flow	Submission of SOEs to district	As per existing instructions	PHC	MOIC
IRS campaign	Conducting campaigns	As per plan	PHC	MOIC
IRS campaign	Daily evening briefing of all supervisors	During IRS	PHC	MOIC
IRS campaign	Daily compilation of coverage reports and communication to district	During IRS	PHC	MOIC
Mobilization	Distribution IEC material to ASHA in monthly meeting for display prior to IRS	Before IRS	PHC	MOIC
Mobilization	ASHA meeting for dissemination of information to beneficiaries prior to IRS campaign and search for cases (meeting 20 days prior to campaign, first visit to family by ASHA 15 days prior, second visit 2 days prior)	As per plan	PHC	MOIC
Mobilization	Meeting of ANMs 15 days prior to campaign for meeting with PRI and local practitioners	15 days before IRS	PHC	MOIC
Supervision	Supervision plan during microplanning, training and IRS	As per plan	PHC	MOIC
Training	Training of IRS workers	As per plan	PHC	MOIC
Training	Submission of training plan to district	As per plan	PHC	MOIC
Training	Facilitation of trainings at block level	As per plan	Care	Care

- **Monitoring and evaluation**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Microplanning	Monitoring the quality and progress of microplanning	As per plan	District	MOIC
Training	Monitoring of trainings	As per plan	WHO/development partners	MOH&FW/district

- **Surveillance/treatment**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Case detection	Active surveillance visits and sensitization of government and private health facilities by KTS/Care link workers. At least one visit to all assigned health facilities in two months.	As per instructions	District Health Department	Dist VBD Officer
Case detection	Screening of fever cases from IDSP weekly linelist	Monthly	PHC	MOIC
Case detection	Sensitization of ASHA/AWW in their monthly meetings for case detection and reporting by MOIC	Monthly	PHC	MOIC
Case detection	Diagnosis and ensuring treatment of suspect cases from any source at designated treatment center	Monthly	PHC	MOIC
Treatment	Follow up of HIV-VL cases	Regular	PHC	KTS
Treatment	Referral of all relapse cases to district hospital	Regular	PHC	MOIC

11.5 Village level actions

- Vector control (indoor residual spray)**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Mobilization	First visit to family by ASHA 15 days prior, second visit 2 days prior (search of cases/BCC/mobilization)	As per plan	PHC	MOIC
Mobilization	Visit by ANM/other health staff to PRI and local practitioners for BCC and search for cases	As per plan	PHC	MOIC
IRS campaign	IRS spray activities	As planned	PHC	MOIC

- Monitoring and evaluation**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Mobilization	Monitoring of awareness about IRS and visit of ASHA/ANM/other health staff	As planned	District	MOIC
IRS campaign	Monitoring of IRS squads and completed villages	As planned	District	MOIC

- Surveillance/treatment**

Components	Activities	Timeline	Responsible Organization	Responsible Deptt.
Case detection	Quarterly active camp search for suspect KA cases & PKDL at the village	As per plan	PHC	MOIC
Case detection	Scanning the village for fever complex of KA suspect cases and reporting to ANM/ASHA cascade	Weekly	PHC	MPHS
Case detection	Active case search in community around index case	Upon detection of cases	PHC	KTS/ Care link worker
Treatment	Follow up of treated VL and PKDL cases at 6 and 12 months respectively	6 and 12 months	PHC	KTS/ Care link worker

This Road map for kala – azar elimination was prepared with the help from WHO, stakeholders and states.