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PREAMBLE

Lymphatic Filariasis (LF), commonly known as elephantiasis is a disfiguring and disabling disease, usually acquired in childhood. In the early stages, there are either no symptoms or non-specific symptoms. Although there are no outward symptoms, the lymphatic system is damaged. This stage can last for several years. Infected persons sustain the transmission of the disease. The long term physical consequences are painful swollen limbs (lymphoedema or elephantiasis). 250 (255 now due to division of old districts) across 21 states/UTs are endemic for lymphatic fiflariasis with about 600 million at-risk population. To tackle the problem, National Filaria Control Programme was launched in 1955 with a combination of measures viz. mass drug administration with Diethylcarbamazine (DEC), recurrent antilarval measures in urban areas and anti-adult mosquito measures using indoor residual insecticide spray in rural areas. Due to insecticide resistance and operational factors, the strategy was revised in 1962 consisting of recurrent antilarval measures, community awareness through information, education and communication (IEC) and detection and treatment of microfilaria carriers and clinical cases. India is a signatory to the World Health Assembly resolution in 1997 for Global Elimination of Lymphatic Filariasis. The target for global elimination of this diseases is by 2020. The national health policy (2002) also envisages elimination of LF by year 2015 which is defined as cessation of lymphatic filariasis as a public health problem when the number of microfilaria carriers in the community is less than 1% and children born after initiation of elimination of lymphatic filariasis are free from circulating antigenaemia i.e. presence of adult filarial worm in human body. To achieve elimination of lymphatic filariasis, Government of India during 2004 launched campaign of mass drug administration with annual single recommended dose of DEC, in addition to scaling up home based foot care and hydrocele operations. Later on, co-administration of Albendazole with DEC was introduced in 2007 and scaled up in all endemic districts across country. The current strategy is based on two pillars: Annual Mass Drug Administration of DEC+Albendazole for 5 years or more to the population excluding children below two years, pregnant women and seriously ill persons in affected areas to interrupt transmission of disease and disability alleviation through home based management of lymphoedema cases and surgical intervention for hydrocele cases.

EXECUTIVE SUMMARY

National Roadmap for Elimination of Lymphatic Filariasis (NRELF) 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 lymphatic filariasis disease as well as strategies for vector control. NRELF 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 elimination of lymphatic filariasis from South-East Asia Region (2011-2015), WHO Global guidelines and WHO Regional Technical Advisory Group, South-East Asia Region.

Roadmap provides strategic directions on planning and monitoring of activities under ELF like pre-MDA, during-and post-MDA along with integrated aspects of morbidity management and disability prevention with rehabilitation services. The roadmap also introduces the component of monitoring and evaluation of various activities along with transmission assessment survey (TAS) as a decision making tool to stop MDA in areas which have successfully implemented MDA for minimum of five years with at least 65% of the total population coverage and have achieved microfilaria rate of less than one percent.

Integrated Vector Management (IVM) as one of the strategies implemented in areas of high burden and in areas where even after successful implementation of MDA, microfilaria rate is still high provides rational decision-making process for optimum use of resources for vector control.

Intensive awareness campaigns with the involvement of communities and community health volunteers will address important barriers in utilization of services.

Lymphatic filariasis elimination will require effective involvement of health personnel at all levels in the implementation of strategies and morbidity management on continuum

of care, right from the engagement of ASHA at village level to health personnel at primary health care and other levels of care.

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

1 INTRODUCTION

Lymphatic filariasis, commonly known as elephantiasis, is a painful and profoundly disfiguring disease. The disease is caused by three species of nematode thread-like worms - *Wuchereria bancrofti* and *Brugia malayi* and *Brugia timori*, known as filariae. The infection usually occurs during childhood but its visible manifestations occur later in life, leading to temporary and permanent disability.

Lymphatic filariasis has a major social and economic impact on endemic countries. During the early phase, the infected person remains apparently healthy but serves as a source of infection for transmission.

Male and female worms live together and form nests in the lymphatic system. The lymphatic system is a network of nodes and small vessels which maintain the fine fluid balance between tissues and blood. The lymphatic system is an essential component of body's defense system.

Filariae are responsible for various clinical manifestations including lymphedema of the limbs (tissue swelling) or elephantiasis (skin/tissue thickening) of limbs and genital disease (fluid accumulation in scrotum, chylocele, swelling of scrotum and penis). Involvement of breasts and genital organs is common. Such body deformities lead to social stigma, as well as financial hardship from loss of income and increased medical expenses. The socio-economic burdens of isolation and poverty are immense.

The spread of the infection can be interrupted by an annual large-scale treatment with single doses of 2 medicines to all eligible people where the infection is present. Annual treatment of all individuals at risk (individuals living in endemic areas) with recommended anti-filarial drugs combination of either diethyl-carbamazine citrate (DEC) and albendazole,or the regular use of DEC fortified salt can prevent occurrence of new infection and disease.

In India, 99.4% of infections are caused by *Wuchereria bancrofti* and rest by *Brugia malayi*. The transmission of Lymphatic filariasis occurs through mosquitoes namely *Culex quinquefasciatus*.

Humans are the exclusive host of infection with *W. bancrofti.*

International Task Force for Disease Eradication identified lymphatic filariasis as one of the six infectious diseases to be "eradicable" or "potentially eradicable". The World Health Assembly in 1997 adopted resolution, WHA 50.29, for Elimination of Lymphatic

Filariasis (ELF) as a global public health problem by 2020. India is a signatory to this resolution.

A project was initiated in 1996-97 with single dose of Mass Drug Administration (MDA) of Diethyl-carbamazine citrate (DEC) annually in 13 identified districts of 7 states and later extended to 31 districts during 2002 including 11 districts with co-administration of DEC+Albendazole.

In India, programme to eliminate lymphatic filariasis was launched in 2004 covering 202 endemic districts in 20 States/Union Territories and subsequently scaled up to cover all the 250 (now 255) endemic districts targeting a population of about 600 million.The population coverage during MDA has improved from 73% in 2004 to 83% in 2013 (Prov.). The overall microfilaria rate has reduced from 1.24% in 2004 to 0.29% in 2013 (Prov.) at national level. Out of 250 districts (now 255 due to division of old districts), 203 districts have reported overall microfilaria rate to less than 1%. Out of remaining 52 districts, 31 need high priority for focussed intervention as these districts have been persistently reporting microfilaria rate above 1%.

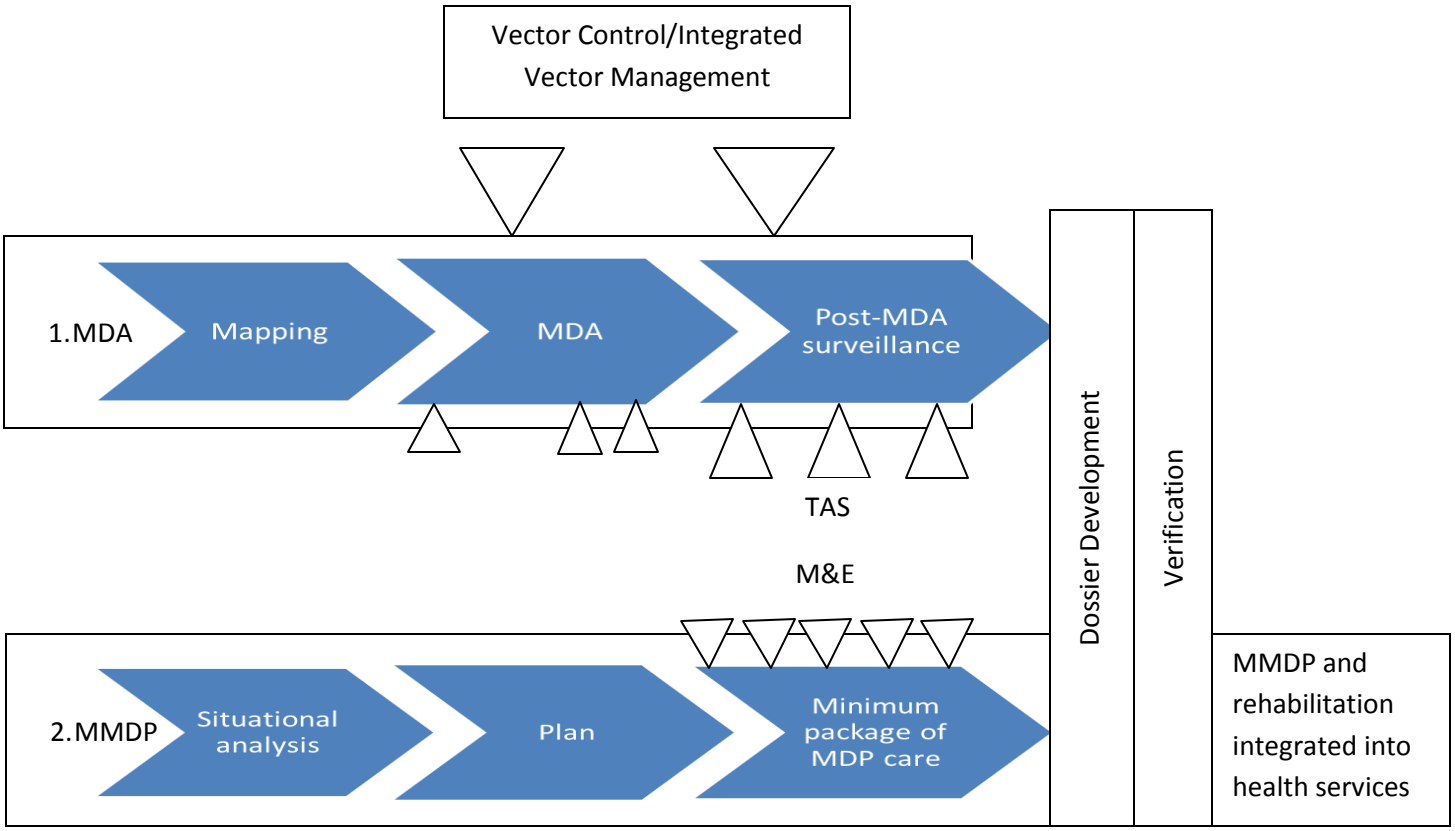
2 GLOBAL SCENARIO

About 1400 million people in 73 countries are at risk of Lymphatic Filariasis throughout the tropics and sub-tropics of Asia, Africa, the Western Pacific, and parts of the Caribbean and South America.

Over 120 million people are currently infected globally, with about 40 million disfigured and incapacitated by the disease. Globally, an estimated 25 million men suffer with genital disease and over 15 million people are afflicted with lymphoedema.

South East Asia Region of WHO has the highest disease burden among all WHO regions, with 9 out of 11 member countries in the region being endemic for the disease. Out of this, about 600 million are at risk in India. Global programme to eliminate lymphatic filariasis was launched in 2000 with the aim to eliminate the disease by 2020. Global strategy is based on two components-

- Interruption of transmission through large-scale annual treatment of all eligible people in an area or region where infection is present;
- increased morbidity management and disability prevention activities to alleviate suffering due to disabilities



Arrows represent epidemiological assessment recommended as part of monitoring and evaluation of the national programme.

MDA, mass drug assessment; TAS, transmission assessment survey; M&E, monitoring and evaluation; MMDP, morbidity management and disability prevention.

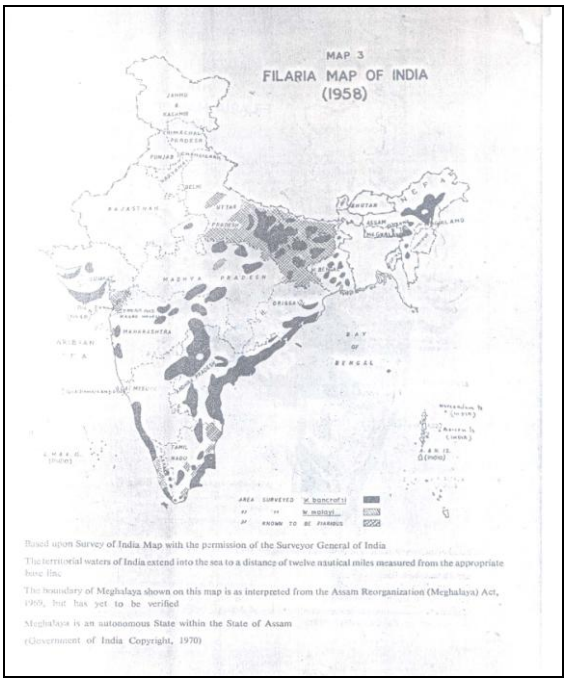
3. Indian Scenario

a. Overall

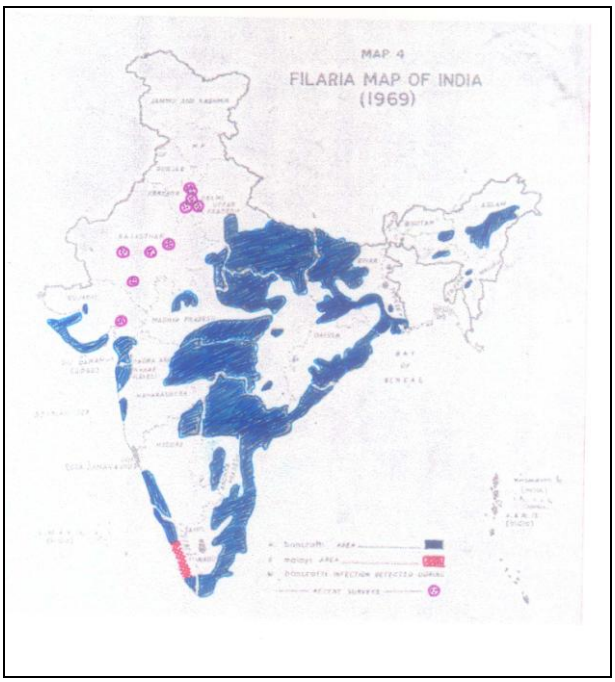
The disease is endemic in 15 States and 5 UTs with approximately 600 million populations at risk. Indigenous lymphatic filariasis cases are reported from Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttar Pradesh, West Bengal, Puducherry, Andaman & Nicobar Islands, Daman & Diu, Dadra & Nagar Haveli and Lakshadweep. From these States/UTs, a total of 250 districts have been identified to be endemic for filariasis.

India aims to achieve the goal of LF elimination by 2015. The programme was initiated on a pilot basis in 13 of the 250 endemic districts (implementation unit i.e., IU) during 1996–97 with DEC alone and thereafter with DEC and albendazole. The programme has been gradually scaled up to reach all the 250 endemic districts spread over 20 states and union territories.

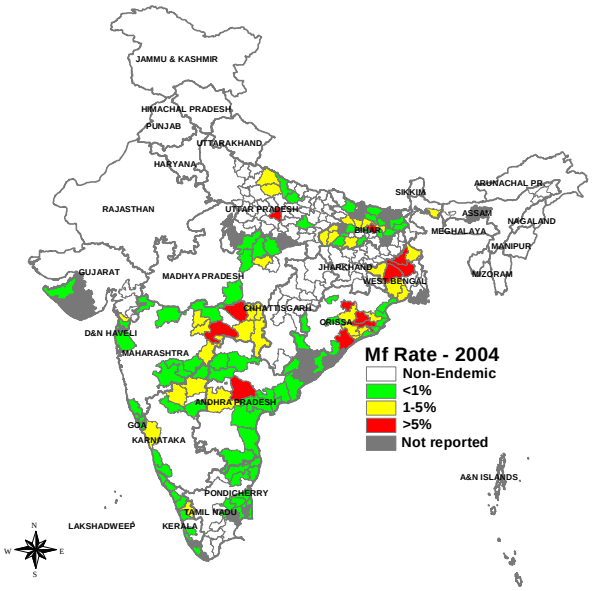
Morbidity Management is another pillar of strategy for ELF and states/UTs were advised on up-scaling home based morbidity management of Lymphoedema cases and Hydrocele operations. The process involved updating the line-listing of Lymphoedema & Hydrocele cases in the districts. Demonstration and training on simple foot hygiene to affected persons and motivate them for self practice. Motivate for surgical intervention to hydrocele cases. The updated report from LF endemic states/UTs indicated 800 000 Lymphoedema and 400 000 hydrocele cases. Since 2004, the states/UTs have reported approximately 110,842 hydrocele operations. States have initiated management of Lymphoedema cases through demonstrating home based foot hygiene method to patients at local levels.



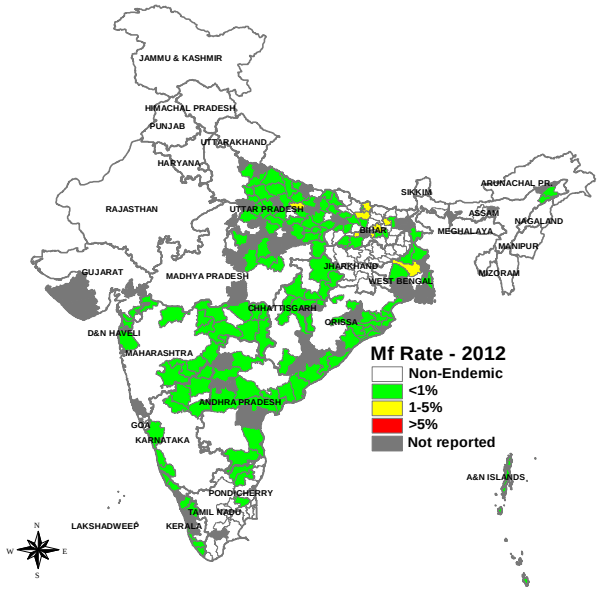
Filaria map: 1958



Filaria map: 1969



Filaria map: 2004



Filaria map: 2012

Endemicity profile of states/UTs

Sr. No.	State/UTs	Coverage under 5 rounds of MDA (Yes/No)	Total number of districts	Districts endemic for LF	No of districts with micro filaria rate of less than 1%	No of districts with micro filaria rate of more than 1%	No of districts cleared transmission assessment survey (TAS)
1	Andhra Pradesh*	Yes	23	16	16	0	
2	Assam	Yes	27	7	7	0	5
3	Bihar	Yes	38	38	22	16	
4	Chhattisgarh	Yes	27	9	8	1	
5	Goa	Yes	2	2	2	0	2
6	Gujarat	Yes	33	11	10	1	
7	Jharkhand	Yes	24	17	13	4	
8	Karnataka	Yes	30	8	7	1	1
9	Kerala	Yes	14	11	11	0	3
10	Madhya Pradesh	Yes	51	11	11	0	
11	Maharashtra	Yes	36	17	14	3	3
12	Odisha	Yes	30	20	18	2	1
13	Tamil Nadu	Yes	32	20	20	0	8
14	Uttar Pradesh	Yes	75	51	50	1	
15	West Bengal	Yes	20	12	9	3	4
16	Puducherry	Yes	1	1	1	0	1
17	A& N islands	Yes	3	1	1	0	
18	D & N Haveli	Yes	1	1	1	0	
19	Daman & Diu	Yes	1	1	1	0	1
20	Lakshadweep	Yes	1	1	1	0	
	Total		**469**	**255**	**223**	**32**	**29**

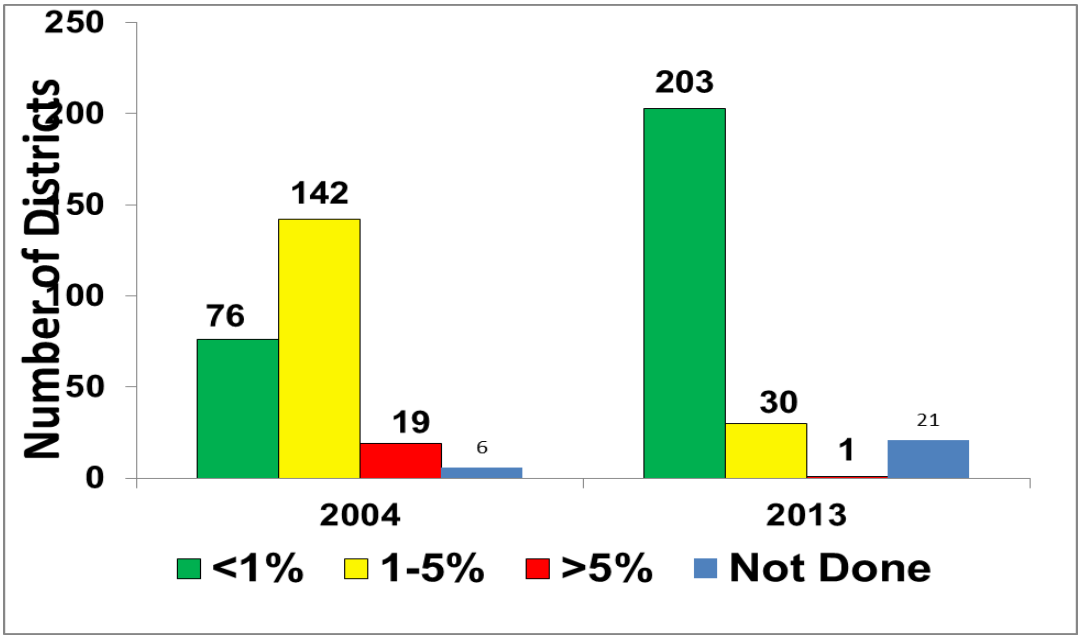
*Telangana state is created recently

Annexure I Detailed district wise epidemiological status

Progress in MDA implementation in India

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
No of IUs covered	202	229	196	250	212	193	218	176	203	136
Population targeted (At risk) (in million)	467	559	559	571	578	597	604	610	619	631
Population targeted to be covered (eligible) (in million)	382	452	367	505	432	389	449	356	453	309
Reported no of people covered by MDA (million)	277	350	302	421	374	337	379	313	394	253
Reported drug coverage (%) against eligible population	73	77	82	83	87	87	84	88	87	82
Programme drug coverage % against total population	59	63	54	74	65	56	63	51	64	40
Mf rate	1.24	1.02	0.98	0.64	0.53	0.65	0.41	0.35		
No of IUs with Mf rate <1% after >5 rounds									186	203
No of IUs which stopped MDA									21 (for TAS) 31 MDA not done	64 (for TAS) 55 MDA not done

Impact of mass drug administration on the progress towards elimination of lymphatic filariasis (2013)



4. ELF PROGRAMME

a. Goal

Elimination of Lymphatic Filariasis by 2015 as envisaged in National Health Policy (2002)

b. Target

- To cover all eligible population living in all (presently 255) Lymphatic filariasis endemic districts during MDA.
- To line list the cases of lymphoedema and hydrocele in all the districts and augment home based morbidity management and hydrocele operations in identified district hospitals/CHCs.

c. Objective

- Progressively reducing and ultimately interrupting the transmission of Lymphatic Filariasis (LF).
- Preventing and reducing disability amongst affected persons through disability alleviation and morbidity management.

5. ELF STRATEGIES

To eliminate LF, WHO recommends delivery of combinations of two medicines to entire populations at risk, by a strategy known as 'mass drug administration (MDA)'. This involves four steps:

i. Mapping- the geographical distribution of disease
ii. Mass drug administration (MDA)- for 5 years or more to reduce the number of parasites in the blood to levels that will prevent mosquito vectors from transmitting infection
iii. Post-MDA surveillance- after MDA is discontinued; and
iv. Verification of elimination of transmission

Programme steps for interrupting transmission of lymphatic filariasis by mass drug administration (MDA)

a. <u>Preventive Chemo Therapy through MDA</u>

Annual Mass Drug Administration (MDA) of single dose with DEC (Diethylcarbamazine citrate) + Albendazole for minimum 5 years to all eligible population (except pregnant women, children below 2 years of age and seriously ill persons) in endemic areas to interrupt transmission of the disease.

b. <u>Morbidity Management</u>

Promotion of Home based management of lymphoedema cases and up-scaling of hydrocele operations in identified CHCs/ District hospitals /medical colleges.

6. ACTIVITIES FOR ELF

Central planning activities

Sr. no	Components and proposed Action	Timeline (completed by)	Responsibilities
1	Funds allocated to states	150 days in advance to MDA activities	
2	National level meeting of Expert Group	120 days in advance of MDA	NVBDCP
3	Preparation/Updating of operational manual on ELF and circulation to all the endemic states/UTs/Medical colleges.	Completed	NVBDCP
4	Develop training modules/Learning material on relevant aspects of ELF and develop a national plan for training of human resource in ELF.	Completed and communicated	NVBDCP
5	Pprototype of IEC developed and communicated to the states/UTs for printing in local language	Completed and communicated	NVBDCP
6	Preparatory national workshop with involvement of State Programme Officers, NVBDCP, NICD, ICMR and LF Experts and review meetings	Six monthly	NVBDCP
7	Monitoring and independent evaluation of Mass Drug Administration (MDA)	Annual	NVBDCP
	Monitoring and independent evaluation of Transmission Assessment Activities (TAS)	According to the state planning	NVBDCP
8	Procurement planning of Albendazole and submission to WHO	every year by December	NVBDCP
	Supply of Albendazole to endemic states/UTs.	Six months before MDA	NVBDCP

9	Plan of Transmission Assessment Survey (TAS) prepared in consultation with states and communicated to the states/UTs	Dec' 2014	NVBDCP and states
10	Collaborate with WHO, international/bilateral agencies, private & public sectors, NGOs, other ministries, etc. on ELF and co-ordinate ELF activities between the states through ROH&FWs and officers of Dte. of NVBDCP.	On going	

Activities related to Mass Drug Administration

Sr. no	Components and proposed Action	Timeline (completed by)	Responsibilities
A	**Pre MDA activities**		
A1	**Central level actions**		
i	Funds allocated to states	As per PIP approval, NHM	MoH&FW
ii	Central level monitoring teams formed and communicated to states	Dec' 2014	NVBDCP
iii	Central representative attended the State Task Force/Technical Committee meeting	Dec' 2014	NVBDCP
A2	**State level actions**		
i	State Task Force & technical committee meeting conducted	90 days prior to MDA	Secretary health, State
ii	Funds released to districts	As per PIP approval, NHM	SHS
iii	Drugs (particularly DEC) procured at state	150 days in advance	SHS
iv	Drugs distributed to districts	120 days in advance	SPO, VBD
v	District action plan received and examined	120 days in advance	SPO, VBD

vi	State level monitoring teams formed and instructions issued to districts		SPO, VBD
	Mapping in selected districts	120 days prior to MDA	SPO, VBD
vii	District level meetings attended by state representatives	90 days prior to MDA	SPO, VBD
viii	State level training plan prepared and communicated	120 days prior to MDA	SPO, VBD
ix	State level Training of trainers completed	120 days prior to MDA	SPO, VBD
x	IEC prototype material disseminated to district	150 days prior to MDA	SPO, VBD
A3	**District level actions**		
i	Pre-MDA district coordination committee meeting conducted	90 days prior to MDA	District VBD officer
ii	District action plan prepared	150 days prior to MDA	District VBD officer
iii	Funds distributed to blocks	90 days prior to MDA	District VBD officer
iv	Instructions and administrative guidelines issued to blocks	90 days prior to MDA	District VBD officer
v	Block micro-action plan received and examined	120 days prior to MDA	District VBD officer
vi	Drugs procured at district level	120 days prior to MDA	District VBD officer
vii	Drugs distributed to block	60 days prior to MDA	District VBD officer
viii	District level training plan prepared and district level training conducted	60 days prior to MDA	District VBD officer
vix	IEC material printed and disseminated	90 days prior to MDA	District VBD officer
x	IEC activities initiated	45 days prior to MDA	District VBD officer

xi	District monitoring teams formed and communicated to blocks	60 days prior to MDA	District VBD officer
xii	Formation of Rapid Response Team (RRT) at the district/PHC level and information disseminated	60 days prior to MDA	District VBD officer
xiii	Instructions for microfilaria survey from sentinel and random sites issued to blocks	120 days prior to MDA	District VBD officer
A4	**Block level actions**		
i	Block level meetings conducted	60 days prior to MDA	Block in-charge medical officer
ii	Block level micro plan (teams, area allocation, route map, drugs etc) prepared and discussed in meeting	45 days prior to MDA	Block in-charge medical officer
iii	Drugs procured from the district	60 days prior to MDA	Block in-charge medical officer
iv	IEC activities initiated	45 days prior to MDA	Block in-charge medical officer
v	Training of teams and health personnel conducted	30 days prior to MDA	Block in-charge medical officer
	Meeting of village health & sanitation committee	15 days prior to MDA	Block in-charge medical officer
	Drugs distributed to teams	7 days prior to MDA	Block in-charge medical officer
vi	Training to drug providers	7 days prior to MDA	Block in-charge medical officer
	Reporting formats obtained/printed and distributed	7 days prior to MDA	Block in-charge medical officer
	Conduct sub centre level meeting of stakeholders	7 days prior to MDA	Block in-charge medical officer

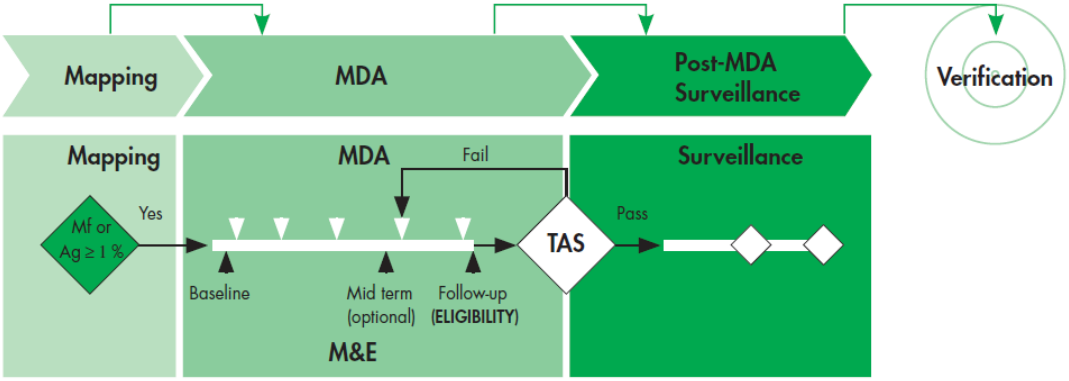
Sr. no	Components and proposed Action	Timeline (completed by)	Responsibilities
B	**During MDA activities**		
B1	**Central level actions**		
i	Visit to the states completed	During MDA	NVBDCP
B2	**State level actions**		
i	State level monitoring teams visited districts	During MDA	DHS
ii	Supervision and mopping up to cover entire population allotted for better population coverage	During MDA	SPO, VBD
iii	Monitoring and management of Side reaction if any through Rapid Response Team	During MDA	SPO, VBD
B3	**District level actions**		
i	Supervision and mopping up to cover entire population allotted for better population coverage	Within three days of MDA	District VBD officer
ii	Monitoring and management of Side reaction if any through Rapid Response Team	Within three days of MDA	District VBD officer
B4	**Block level actions**		
i	Daily reporting to district	During MDA and mop up operations	Block in-charge medical officer
ii	Supervision and mopping up to cover entire population allotted and improve drug compliance	During MDA and mop up operations	Block in-charge medical officer
iii	Monitoring and management of Side reaction if any through RRT	During MDA and mop up operations	Block in-charge medical officer
B5	**Village level actions**		
i	First visit to family by ASHA 15 days prior, second visit 2 days prior (Awareness/BCC/mobilization)	During MDA and mop up operations	
Ii	Visit by ANM/other health staff to PRI and local practitioners for BCC	During MDA and mop up operations	

Sr. no	Components and proposed Action	Timeline (completed by)	Responsibilities
C	**Post MDA activities**		
C1	**State level actions**		
i	Assessment of MDA coverage involving Medical Colleges/Research Institutions/Regional Director offices/other independent stakeholders	Within 30 days of post MDA	SPO, VBD
ii			SPO, VBD
iii	Report received from all the endemic districts	Within 30 days of post MDA	SPO, VBD
iv	Report shared with the NVBDCP	Within 45 days of post MDA	SPO, VBD
C2	**District level actions**		
i	Reports received from all the blocks	Within 15 days of post MDA	District VBD officer
	District level report prepared and sent to state	Within 30 days of MDA	District VBD officer
ii	Report of microfilaria survey prepared and shared with state	Within 30 days of MDA	District VBD officer
C3	**Block level actions**		
i	Reports compiled and prepared	Within 7 days of MDA	Block in-charge medical officer
ii	Line listing of hydrocele and lymphedema completed	Within 7 days of MDA	Block in-charge medical officer
iii	~~Plan of action for morbidity management prepared and submitted to district~~		

Transmission Assessment Survey (TAS)

Effective monitoring and evaluation are necessary to achieve the goals of LF elimination. After mass administration of medicines, programme must be able to assess whether the interventions have succeeded in lowering the prevalence of infection to a level at which transmission is no longer likely to be sustainable. Transmission assessment survey (TAS) is a decision making tool which is designed to provide a simple, robust survey design for documenting that the prevalence of lymphatic filariasis among 6–7 year old children is below a predetermined threshold. It provides the evidence base that MDA can be stopped and to assure that programme has achieved elimination goal.

Steps for interrupting transmission of lymphatic filariasis by mass drug administration (MDA) as described by WHO in 2011[3]



Mf, microfilaraemia; Ag, antigenaemia; M&E, monitoring and evaluation; TAS, transmission assessment survey

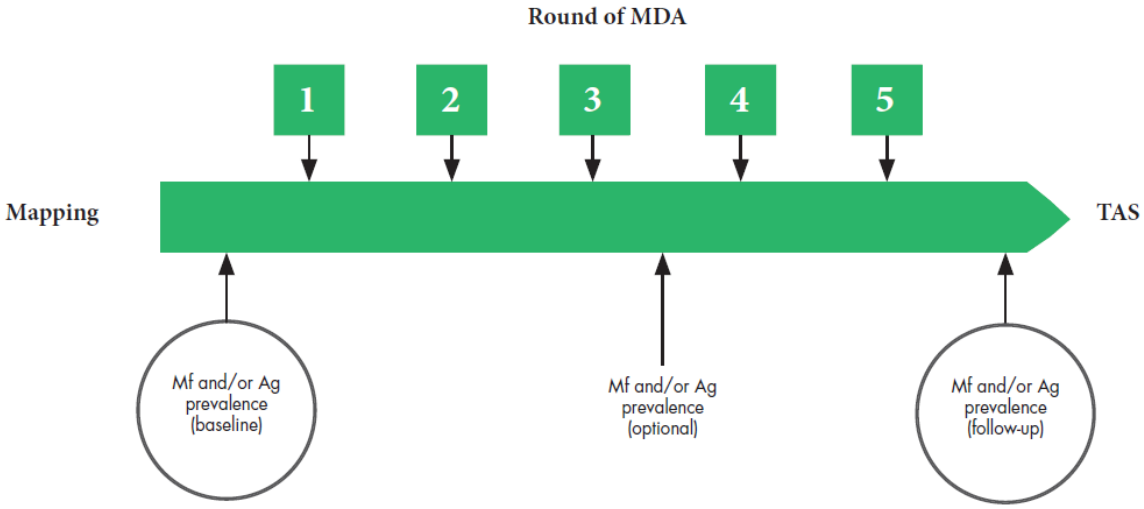
Source: Illustrated from *Global Programme to Eliminate Lymphatic Filariasis (GPELF). Monitoring and epidemiological assessment of mass drug administration—a manual for national elimination programmes*. Geneva, World Health Organization, 2011.

Eligibility criteria for transmission assessment survey

Sr.no	Component	Criteria
1	At least five rounds of MDA completed	All intervention units (IU)
2	The epidemiological drug coverage (programme coverage) at each round	At least or more than 65% in each round
3	Sentinel sites*	The prevalence of mf is <1% or that of Antigen is ,2% at all sentinel sites
4	Spot-check sites*	The prevalence of mf is <1% or that of Antigen is ,2% at all sentinel sites

*at least one sentinel site per one million people in the intervention unit (IU)

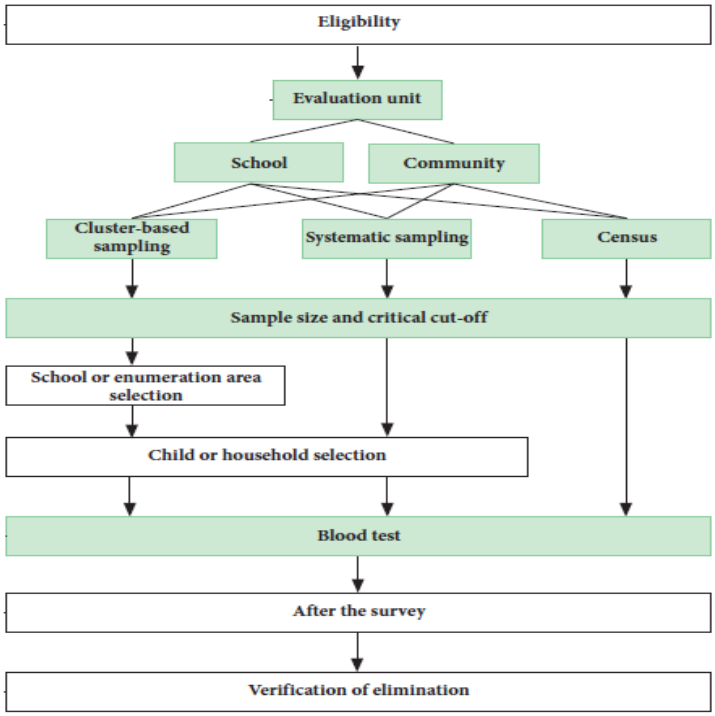
Timing of sentinel site and spot-check site surveys recommended in the Global Programme



MDA, mass drug administration; TAS, transmission assessment survey; Mf, microfilariae; Ag, antigenaemia

Source: *Monitoring and epidemiological assessment of mass drug administration—a manual for national elimination programmes*. Geneva, World Health Organization, 2011.

Scheme of procedure of conducting transmission assessment survey



TAS plan

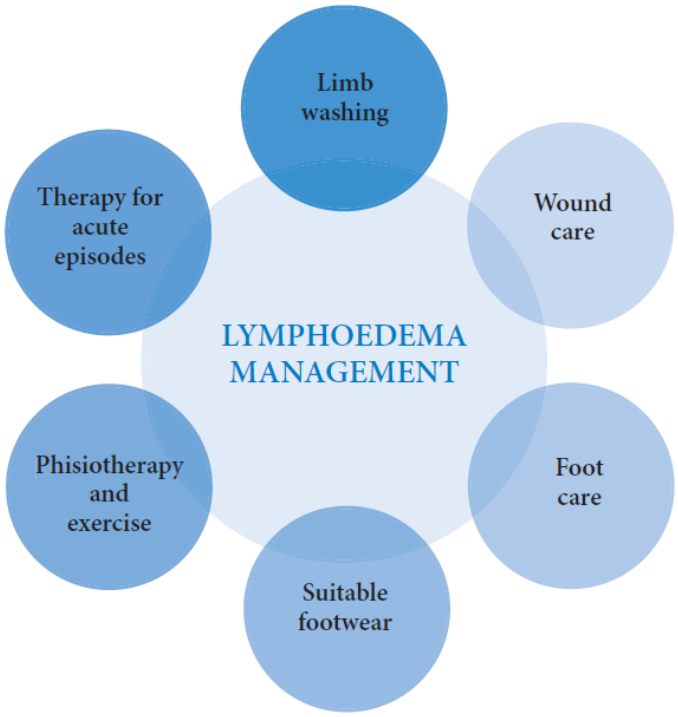
Sr. No.	Year	States	No of Evaluation units	Time frame
1.	2013-14	Assam	2	Cleared TAS
2.	2013-14	Goa	1	Cleared TAS
3.	2013-14	Karnataka	1	Cleared TAS
4.	2013-14	Maharashtra	1	Cleared TAS
5.	2013-14	Tamilnadu	2	Cleared TAS
6.	2013-14	Puducherry	1	Cleared TAS
7.	2013-14	Daman & Diu	1	Cleared TAS
8.	2014-15	Assam	3	Cleared TAS
9.	2014-15	Kerala	4	Cleared TAS
10.	2014-15	Tamilnadu	10	Cleared TAS
11.	2014-15	Odisha	1	Cleared TAS
12.	2014-15	West Bengal	13	Cleared TAS

Morbidity management and disability prevention (MMDP)

Globally 120 million people are infected with lymphatic filariasis. One third of them live in India. An estimated 40 million people globally have clinically significant manifestations of lymphatic filariasis- predominantly lymphedema and hydrocele. These conditions are associated with concomitant loss of productivity and social stigmatization. The pillar of morbidity management and disability prevention offers opportunities to use existing such services at the primary health care level. All attempts should be made for the integrated approach to prevention and management of disabilities for leprosy, diabetes (foot care), poliomyelitis, etc.

Goals and aims of MMDP

Goals are to alleviate suffering in people with ADLA, lymphedema, and hydrocele and to improve quality of life. The aim is to provide access to the recommended basic care for every person with these manifestations in areas endemic for lymphatic filariasis.



Measures for managing lymphedema

Minimum package of services:

- Treatment of episodes of ADLA among people with lymphangiitis and elephantiasis
- Prevention of disabilities, painful episodes of ADLA and progression of lymphedema
- Provide access to hydrocele surgery
- Provide anti-filarial medicines to destroy any remaining worms and microfilariae by mass drug administration and individual treatment

Responsibility	**Activities required**	**Person(s) responsible and skills required**	**Care delivery level**
Disease condition- Acute dermatolymphangioadenitis (ADLA)			
Identify patients and treat ADLA and manage complications	Visit patients regularly to identify attacks, treat ADLA with appropriate antibiotics, follow up patients	Doctors and nurse- Knowledge of basic principles of management- doctors and nurses	Primary health care level, sub-divisional or district hospital
Prevent injuries and entry lesions	Washing limbs, distribution of footwear, prompt treatment of injuries and rest during attacks	Patients with ADLA, ASHA, Doctors and nurse- Knowledge of predisposing factors for ADLA and facilities available for treatment	Community and family home-based, Primary health care level, sub-divisional or district hospital
Disease condition: Lymphoedema and elephantiasis			
Manage lymphedema and its complications	Washing limbs, foot care, exercise and prevention of ADLA	Patients with lymphoedema, ASHA, Doctors and nurse- Knowledge of predisposing factors for ADLA and facilities available for treatment	Knowledge of basic principles of treatment and management of lymphedema and complications

Disease condition: Hydrocoele			
Identify and perform safe hydrocoelectomy	Treat ADLA and its complications with appropriate antibiotics Motivate patients and refer for surgery	ASHA, Doctor, Nurse- Manage, refer and counsel	Basic principles of management as appropriate

Annexure II

State wise line list of lymphedema and hydroceole cases and performance

7. ROLES AND RESPONSIBILITIES

The roles and responsibilities of different categories of officers and staff at various levels viz. National Programme Headquarters, State Programme Headquarters, District Headquarters, PHC/Town, Sub-centre and village/ward are given below. The duties are mentioned as general guidelines, which may be adapted to rules and regulations of Govt. /Local Body.

a. Central Level (Dte NVBDCP)

i Meeting of Expert Group, National Task Force (now National Technical Advisory Committee). and Consultation/Brain storming workshops for formulating/revising guidelines on various aspects of ELF and prepare strategic plan for ELF.

ii Preparation/Updating of operational manual on ELF and circulation to all the endemic states/UTs/Medical colleges.

iii Develop training modules/Learning Units on relevant aspects of ELF and develop a national plan for training of manpower in ELF.

iv Develop prototypes on IEC with the help of media agencies and media experts and circulate to the states/UTs for printing in local language

v Preparatory national workshop with involvement of State Programme Officers, NVBDCP, NICD, ICMR and LF Experts and review meetings.

vi Technical guidance, monitoring and independent evaluation of ELF.

vii Formulating budget proposal for appropriate central funds for implementation of ELF in the endemic states.

viii Procurement of Albendazole and supply to endemic states/UTs.

ix Monitoring and evaluation of the programme on process and impact indicators regularly to issue guidelines for corrective measures wherever warranted.

x Identify teams consisting of physician, pharmacologists, epidemiologists and social scientists for investigation in the field in the event of any report of adverse reactions.

xi Collaborate with WHO, international/bilateral agencies, private & public sectors, NGOs, other ministries, etc. on ELF and co-ordinate ELF activities between the states through ROH&FWs and officers of Dte. of NVBDCP.

b. State Level

The Nodal officer for Elimination of Lymphatic Filariasis of the State Health Deptt. has to supervise the entire work of ELF in the State.

i. He will organize the drug procurement for the next round of MDA even before the MDA dates are announced **(usually in January)**

a. Calculate required DEC 100 mg tablets (population x 2.5) and Albendazole 400 mg tablets (Population x 1).
b. Arrange to distribute drug to the peripheral areas sufficiently early before MDA

ii. Mission Director of State Health society to ensure release of funds for ELF activities including MDA Programme from State health Society to District health Society to make the funds available to the District programme officers and PHC medical officer and at grass roots.

a. Start training activities so that at the end of the training, participants will be familiar with programme, their responsibilities and to develop further training at the periphery for the paramedical staff, drug administrators and inform the community leaders.
b. Prepare training calendar for MOs, Paramedical staff and drug administrators
c. Conduct training for MOs at a venue convenient to the participants

iii. Organize a STF meeting and STAC meeting as per schedule.
iv. Issue instructions and ensure to Organize DCC meetings as per schedule
v. Organize inter-sectoral meeting as per schedule
vi. Start BCC activities as soon as the funds are realized.

a. Choose the IEC channel that is most effective in the community (from the following options – miking, street plays, skits and dramas, banners (cloth or digital), hoardings, advertisements in local print media, TV spots in local cable network, All India Radio and Doordarshan, slides in cinema theatres, pamphlets and leaflets). Use celebrity endorsement for the programme wherever possible.
b. Follow the financial guidelines.
c. Ensure .that all IEC materials are distributed and displayed in the sites already chosen well ahead of the MDA date and also ensure their proper dismantling and return to Hqrs. for subsequent use and accountability.

vii. Start the mapping activities 120 days prior to MDA date.
viii. Facilitate districts in conducting Night blood survey for microfilaria
ix. One week prior to MDA, ensure supply of drugs as per requirement of PHC
x. Starting one week before MDA, step up the publicity for the MDA by increasing the BCC activities.
xi. On the NFD, ensure full availability of all officers for MDA activities. Visit as many sites as possible to oversee the MDA activities and resolve local issues
xii. Collect the reports for the day including a) No. of people covered b) No. of drug distributors c) Frequency and intensity of side reactions d) Any admission to PHCs or state Govt hospitals e) other relevant information
xiii. Transmit the reports to Dte. of NVBDCP on the same day by fax.
xiv. Organize sample surveys to assess actual drug compliance by utilizing the services of designated institutes within 2-3 weeks after MDA (since recall may not be reliable beyond this point) and take remedial measures like extended mop up.
xv. Arrange for dispatching the statement of expenditure (SoE) and utilization certificate to the Dte. of NVBDCP. Unless the UC is submitted, subsequent release of funds will not be possible.
xvi. Convene post-MDA DCC meeting to review the activities of the MDA.

c. District Level

Responsibilities of District Co-Ordination Committee under chairpership of District Collector

i. The DCC is responsible for developing district plan of action and implementation
ii. During the 1st meeting, all district level officers of different sectors and local NGOs are apprised about MDA and requested to extend their co-operation .
iii. The National Filaria Day, mutually decided by Ministry oh Health and Family Welfare, Govt. of India and Govt. of endemic states/UTs, is observed for conducting MDA in the endemic district and the preparatory work will be discussed in this meeting. This activity must start at least 90 days prior to the proposed date for MDA, usually 11th November.
iv. The 2nd and 3rd meetings of DCC are conducted as per schedule to review the implementation of MDA.
v. Following every DCC meeting, media-flash/press meet is conducted to disseminate the message for community cooperation and participation in ELF.
vi. The funds allotted to the districts are judiciously utilised with proper maintenance of records.

Responsibilities of District Vector Borne Disease Officer (DVBDO/DMO/DFO)

i. Implementation of all ELF activities in the district in accordance with the directives given by the SPO and DCC.
ii. Briefing of District Magistrate/District Collector and communicate the minutes to SPO and Dte. of NVBDCP.
iii. Programme planning, implementation and monitoring progress, assess the results of sentinel and spot check sites from time to time and make necessary changes in the pattern of organization and methods that may be found necessary for achieving maximum compliance for MDA in consultation with SPO and DCC.
iv. Ensuring that all the concerned PHC officials are given training on ELF who in turn will train the personnel down in the line.
v. Mapping of Lymphodema and Hydrocele cases in district and marking it village/subcentre wise

d. PHC Level

Responsibilities of PHC In-Charge Medical Officer/Municipal Health Officer

For MDA Programme:

i. Key person for the success of MDA programme.
ii. Determine the number of persons to be treated in the PHC area.
    a. Obtain the population size from the family registers
    b. Subtract the ineligible population (children less than 2 years, pregnant women and critically ill patients)
    c. Calculate the number of tablets required using the age as the criterion
iii. Prepare training calendar for a) paramedical staff b) drug administrators
iv. Convene a meeting of the village leaders to inform them about the programme
v. Ensure receipt of all registers, flash cards, IEC materials, etc. well in advance.
vi. Arrange to receive the funds earmarked for paramedical staff, training activities, drug administrators' activities including remuneration, and also for management of lymphoedema cases.
vii. Conduct the training for paramedical staff separately emphasizing their roles and need to motivate the community and ensure complete participation as per training manual. Identify drug administrators in the community. Select from NGOs, NSS volunteers and other local agencies involved in community development activities.
viii. Identify one drug administrator for every 250 population or 50 households to be covered
ix. Organize training for drug administrators at least a week before the NFD as per training manual.

x. Prepare a plan for the drug administration process identifying the areas to be covered by individual drug administrators who would have also a health staff to advise and assist in the drug administration process. Where possible appoint a supervisory staff to monitor the activities.
xi. Arrange for the receipt of the drugs from the HQ at least a week prior to MDA and store them in a cool dark place (use a dark plastic cover as DEC is photosensitive)
xii. He is fully responsible for ensuring 85% actual drug compliance of target population and monitoring of adverse / side reactions.

For Morbidity Management:

i. Assess the number of copies of the flash cards, forms for enumeration and line listing of the clinical lymphatic filariasis cases.
ii. Train the Health workers / Volunteers for identifying and grading the lymphatic filariasis cases in the implementation areas.
iii. Train the Health workers / Volunteers on all components of home based morbidity management procedures.
iv. Attend on all cases of ADLA episodes for effective management and advocating for prevention of further episodes.
v. Ensure the documentation of line listing for completeness and forward the consolidated reports on standard formats.
vi. He is responsible for imparting training for screening of the population for identifying established cases of lymphatic filariasis and implementing morbidity management packages.
vii. He is fully responsible for the management of funds provided for the campaign.
viii. Organize a lymphoedema management camp in the PHC using the services of the filaria field staff. This is preferably done between 7 and 15 days before the MDA.
   a. Collect list of lymphoedema patients in the PHC area
   b. Assemble them at the PHC and demonstrate the techniques of foot hygiene and preventive foot care.

Responsibilities of Supervisory Paramedical Staff/ Health Workers

For MDA Programme:

i. Prepare the maps of the sector and sub-sectors showing the households, schools, factories, etc.
ii. Identify the Drug Administrators (DAs) from the implementation areas following the guidelines.
iii. Supervise/administer drugs to eligible population.
iv. Collect remaining drugs from the DAs and return them to MO in-charge.
v. Collect information on all the cases of side effects of drugs on day-to-day basis.

vi. Coordinate with MO so that all the cases with side effects are attended within 24 hours of the reporting.
vii. Prepare for mopping up operations to achieve more than 85% actual drug intake (i.e. drugs to be swallowed in the presence of DA).

For Morbidity Management:

i. Collect the required number of flash cards and enumeration forms for line listing of lymphatic filariasis cases.
ii. While carrying out door-to-door enumeration for MDA, enquire for at least the most common clinical manifestations of lymphatic filariasis.
iii. Record all cases on the standard formats.
iv. Inform the MOs immediately if you identify any ADLA cases in the field.
v. Follow-up the patients with ADLA to ensure for the compliance of treatment.

e. Community Level

Responsibilities of Drug Administrator

For MDA

Drug administrator could be the health worker/ASHA/FTDs/DDCs/MLVs or Anganwadi worker or any other health functionary or health volunteer who shall be imparted training by MO-PHC on MDA and morbidity management.

He is the most important person in filariasis elimination programme. His active participation and administration of drugs to all the eligible community members is absolutely essential to eliminate one of the most dreadful diseases and make India free from lymphatic filariasis.

i. From the health worker, find out the locality and households in the community allotted to him for drug administration
ii. Try to locate the fifty households allotted
iii. Find out from health worker the date and venue of training on drug administration programme
iv. Attend the training programme; get all doubts on mass treatment programme clarified by the Medical Officer.

For Morbidity Management:

a. Take the flash cards personally for identifying filariasis cases in the community.
b. Showing the flash cards to the family members, enquire for filarial disease manifestations among any of the family members.

c. Enlist the cases and report to the supervisor.
d. Inform the participants about the home based morbidity management and its uses.
e. Make at least three visits to the 50 households allocated to mobilize the people to participate in treatment and administer the drugs.
f. Make the first visit to the 50 households 10 days prior to the day of drug administration. Carry the census register for 50 households and Drug administrators Gate-folder. Verify the household members using census register. Using the Gate-folder, explain in all the 50 households about the drug administration programme. Inform clearly about the date and time of drug administration. Clarify people's doubts about the mass treatment.
g. Make the second visit to the same 50 households three days prior to the day of drug administration. Explain further about the programme. Emphasize that it yields further benefits in terms of clearance of intestinal worms and make entire family healthy. Again, announce the date and time of drug administration. Request all the household members to be at home on drug administration day and take part in treatment. Clarify peoples' doubts.
h. Make Third visit to administer drugs. Identify each household member with the help of census register. After verifying the age, administer the drugs directly to each and every household member according to the standard dosage schedule. Mark against the name in census register administration of drugs. Those who are not willing to receive and consume the tablets, try to explain the preventive value, benefits and safety of treatment, convince them and administer the drugs. Complete drug administration in all 50 households.

For Management of side effects

Try to be around the 50 households until late evening and monitor if anybody is affected with side effects. Refer those who developed side effects to the health worker for palliative treatment. Ensure that they are properly taken care off, and do not allow the situation to spark of any rumour.

For Records and left over drugs

Return the completed records i.e. the census register with drug administration details and left over drugs to the health worker. Inform him / her if you have had any serious problems during drug administration.

9. ISSUES AND CHALLANGES

- Drug delivery and high treatment coverage to bring desired impact for which programme need to be accorded due Priority at state and district level.

- Social Mobilization will help in improved programme performance for which local opinion leaders need to be motivated and involved.

- Phasing out of MDA after validation for which availability of ICT is limiting factor.

- Morbidity management and disability prevention are vital for public health improvement and should be fully integrated into the health system.

- Unusual delay in submission of SOE/UC by districts to state and from state to centre dislocates availability of funds for ELF activities. Many a times States cannot send SOC/UC for non-receipt of the same from districts.

- Timely preparation and implementation of Micro-Plan of state and district as per national guidelines.

- Continued training and sensitization of State and District level officer by central team.

- Timely availability of DEC which is a decentralized commodity to be purchased by the States

- Timely procurement of ICT cards for TAS.

- Timely conduction of MDA is very crucial. Because of different reasons, all the States could not do MDA in regular interval.

10. ROAD MAP

i. Year 2014-15

- Out of 255 endemic districts, till 2013-14, 11 districts successfully completed TAS and 77 were proposed for TAS. Remaining 167 districts with a population of about 430 million are planned for MDA.
- Lymphoedema Management will be intensified
- Hydrocele operations are to be supported under the programme for disability alleviation and camp approach is already insentivized.
- Survey in Non endemic districts (Lymphoedema & Hydrocele cases) and mf survey as per requirement to tackle hot spot areas.
- Post MDA surveillance will continue
- Brain storming meeting of experts for tackling hard core districts will be conducted.
- Revised guidelines will be issued to states.

ii. Year 2015-16

- Out of 255 districts, it is expected that by end of 2014-15, 88 districts would have completed TAS. Out of remaining 167 districts, 86 will observe MDA and 81 will prepare for TAS.
- Post MDA surveillance will continue
- Review meeting of performance in hard core districts will be conducted.
- Districts already stopped MDA after conducting TAS will go for second TAS.

iii. Year 2016-17

- MDA will be observed only in few districts not passing TAS.
- TAS of 2016-17 will be completed by end of April-June 2017 in 100 districts as minimum 6 months gap will be required after last MDA.
- More districts will go for second/third TAS
- Lymphoedema Management will continue and PHCs/CHCs will be the delivery point for service availability
- Hydrocele operations will continue in identified CHC/district hospital.
- Survey in Non endemic districts (Lymphoedema & Hydrocele cases) will involve more PHC/CHC for providing morbidity management services.
- Post MDA surveillance will continue

Central

- **Finalization of format for monthly reporting of ELF activities & initiation of reporting system:** As on date there is no regular monthly reporting system in vogue. Since filarialasis (manifested with lymphoedema & hydrocele) is a chronic disease without epidemic potential or mortality, monthly collection of number of cases is unrealistic. ELF is aimed at eliminating the disease as a public health problem. There are four broad groups of activities under ELF, viz; MDA, Morbidity Management, TAS & Post MDA Surveillance. Each group has a number of specific activities within it. As such, a system of monthly report of different activities from endemic States will give information about the state of ELF activities there. **Annexure-III** is a suggested format of monthly report.

- **Finalization & dissemination of National Guidelines on TAS & Post MDA Surveillance:** WHO has given guidelines on TAS & Post MDA Surveillance during 2011. Based on these, draft national guidelines on TAS & Post MDA Surveillance have been developed for the country by NVBDCP. These draft guidelines need finalization by an expert committee for use by the States.

- **Meeting with SPO of endemic States/UTs:** Once the Road Map is finalized, all SPOs of endemic States/UTs should be briefed about it and their specific role in following the Road map is to be explained emphasizing on the ownership of States in ELF.

State

- Achievement of >85% drugs compliance of eligible population during MDA 2014 & 2015 rounds of MDA: Each endemic district in the country has undergone 8-10 rounds of annual MDA. Though 203 out of 255 endemic districts have achieved overall microfilaria (Mf) rate of <1% and 21 districts (4 partially) have passed in TAS, the actual coverage and compliance under MDA have been sub-optimal in many places. For realizing the goal of ELF, ways and means to be found and followed for achieving >85% drugs compliance of eligible population during 2014 and 2015 rounds of MDA.

- Quality Assurance in Mf Survey: Quality assurance of Mf survey is extremely important aspect in ELF. The valid and reliable estimation of Mf rate is the only output indicator under ELF. This indicator reflects the coverage and quality of previous annual MDA. For conducting a reliable Mf survey, blood slides are to be collected between 8.30 PM and mid night. Moreover, as the slides are examined in most places by PHC level technicians all positive slides and 5% of negative slides are to be cross-checked in RoHFW or State Health Laboratories. Necessary suggestion to that effect had already been given from NVBDCP. But it is followed very rarely by the States.
- Special attention to hard core districts: There are 31 hard core districts in 10 States of the country which have been reporting Mf rate of >1% persistently. Bihar and

Uttar Pradesh have 11 and 5 such districts respectively. The complete list is in Annexure-2. Focused attention is urgently required for these 31 districts during 2014 & 2015 rounds of MDA. Special efforts for enhanced administrative involvement and intense social mobilization are to be ensured in future MDA.

- Up scaling of Transmission Assessment Survey: Within coming months more and more districts will go for TAS. The respective State will have to procure ICT cards for the purpose. As TAS is a complex procedure, capacity building at district level will be very crucial. Besides logistic and financial support will be key factors for doing TAS smoothly.

- Intensification of morbidity management: So far imparting of training for the 'home based morbidity care' of Lymphoedema cases is concerned; as per existing system PHC medical officer is responsible to train the patients. This needs to be decentralized. The ANM of Health sub-Centre should be trained so that she can impart training during her routine visits to the villages. ANM should be supplied with morbidity management kits for distribution among Lymphoedema cases. CASA an NGO is working in two districts (Khurda and Ganjam) of Orissa. More such NGOs will be encouraged in get involved in Lymphoedema management.

- For intensification of hydrocele operation, medical colleges will be encouraged to adopt blocks and clear the back log of hydrocele operation in 'camp mode' within 6 months to 1 year. State & district health authorities will be advised to utilize the services of medical colleges through proper collaboration.

- Morbidity survey in non-endemic districts: ELF is a pan India activity though MDA has been restricted to only endemic districts. As such morbidity survey in non-endemic districts is another important activity. Under the programme, it has been envisaged that ASHA will be given one time financial incentive of INR 100 for conducting door to door morbidity survey. Such survey will give some indication about focal LF situation in the districts not covered under MDA and also help in taking appropriate control measure if need be so.

- Post MDA surveillance: At present, 21 endemic districts (4 in parts) of Goa, Puducherry, Daman, Karnataka, Tamil Nadu, Maharashtra, West Bengal and Assam have stopped MDA after successfully conducting TAS. In coming time, more and more districts will stop MDA. All such districts should be put under post-MDA surveillance.

Sr. No.	Activity	Responsibility	Time line
1.	National Road Map for ELF	NVBDCP	December, 2014
2.	Revised ELF guidelines	NVBDCP	December, 2014
3.	National guidelines on TAS	NVBDCP	November, 2014
4.	National guidelines on post MDA surveillance	NVBDCP	November, 2014
5.	National guidelines on morbidity management	NVBDCP	November, 2014
6.	Brain storming workshop for formulating strategy in hard core districts where Mf rate is persistently high	NVBDCP	December, 2014
7.	Expert panel for tackling hot spot areas in endemic and non-endemic districts	NVBDCP	December, 2014
8.	Financial planning and appraisal of state plan on ELF and Fund release	NVBDCP/MOHFW	Jan-Mar,
9.	Monitoring supply of Albendazole and ICT	NVBDCP	Jan-June
10.	National level review of programme implementation and progress	NVBDCP	Oct-Nov
11.	Capacity building of state/district level officials	NVBDCP	
12.	Nominating nodal officers for state to supervise and monitor the process of preparedness and implementation of ELF activities for improved compliance and improved performance	NVBDCP	Oct/Nov
13.	Improving drug compliance in MDA	State	
14.	Availability of DEC	State	
15.	Distribution of DEC and Albendazole	State	
16.	Completion of sensitization and other preparatory activities	State/district	
17.	Completion of all training activities	State/district	
18.	Ensuring microfilaria survey	State/district	

19.	Management of severe adverse experiences	State/district	
20.	Pre-TAS activities	State/district	
21.	TAS activity	State/district	
22.	Post MDA surveillance	State/district	
23.	Second TAS	State/district	
24.	Morbidity management	State/district	

Annexure-I

India LF Elimination Report - 2013

State/UT	Implementation Unit (name)	Total population at risk of LF (in million)	Eligible Population of IU (in million)	Number individuals ingesting tablets (in million)	% of eligible population ingested drugs
Andhra Pradesh	Chittoor	4.26	3.83	3.38	88.25
	East Godavari	5.67	5.10	4.87	95.49
	Guntur	4.98	4.48	4.19	93.53
	Karimnagar				
	Krishna				
	Mahboobnagar	4.14	3.65	3.41	93.42
	Medak				
	Nalgonda	3.89	3.18	2.99	94.03
	Nellore	3.03	2.72	2.43	89.34
	Nizamabad				
	Prakasham				
	Rangareddy				
	Srikakulam	2.75	2.45	2.23	91.02
	Visakhapatnam	4.49	3.94	3.53	89.59
	Vizianagaram	2.45	2.26	2.11	93.36
	West Godavari	2.43	3.52	3.39	96.31
Assam	Dibrugarh (Tinsukia)	1.37	1.13	0.98	86.73
	Darrang (Udalguri)	1.88	1.67	1.21	72.46
	Dhemaji				
	Dhuburi				
	Kamrup (Kamrup R)				
	Nalbari (Baksa)				
	Sibsagar	1.18	1.00	0.80	80.00
Bihar	Araria	2.81			
	Arwal	0.75			
	Aurangabad	2.51			
	Banka	2.03			
	Begusarai	2.95			
	Bhagalpur	3.12			
	Bhojpur	2.74			
	Buxar	1.69			
	Darbhanga	3.78			
	East Champaran	5.08			
	Gaya	4.12			
	Gopalganj	2.59			
	Jahanabad	1.08			
	Jamui	1.71			
	Kaimur	1.63			

	Katihar	3.07			
	Khagaria	1.65			
	Kishanganj	1.69			
	Lakhisarai	0.97			
	Madhepura	1.99			
	Madhubani	4.67			
	Munger	1.40			
	Muzzaffarpur	4.38			
	Nalanda	2.99			
	Nawada	2.22			
	Patna	5.92			
	Purnea	3.36			
	Rohtas	2.84			
	Saharsa	1.90			
	Samastipur	4.21			
	Saran	3.98			
	Sheikhpura	0.65			
	Sheohar	0.62			
	Sitamarhi	3.43			
	Siwan	3.47			
	Supaul	2.23			
	Vaishali	3.39			
	West Champaran	4.00			
Chhattisgarh	Ambikapur/surguja	2.55	2.17	2.00	92.17
	Bilaspur	2.49	2.14	1.80	84.11
	Dhamtari	0.89	0.72	0.65	90.28
	Durg	3.44	2.93	2.58	88.05
	Janjgir	1.65	1.41	1.40	99.29
	Jashpur nagar	0.88	0.75	0.72	96.00
	Mahasamund	1.14	0.97	0.91	93.81
	Raigarh	1.55	1.32	1.24	93.94
	Raipur	4.46	3.79	3.16	83.38
Goa	North Goa				
	South Goa				
Gujarat	Amreli				
	Tapi	0.85	0.78	0.75	96.15
	Jamnagar				
	Junagarh				
	Navsari	1.39	1.19	1.18	99.16
	Porbandar				
	Rajkot				
	Surat (R)	1.84	1.66	1.66	100.00
	Surat Municipal Corp.	4.89	4.65	4.64	99.78
	Vadodra (Dabhoi town)				
	Valsad	1.77	1.59	1.59	100.00
Jharkhand	Bokaro				
	Chatra				
	Deogarh				

	Dhanbad				
	Dumka				
	East Singhbhum				
	Garhwa				
	Giridih				
	Godda				
	Gumla				
	Hazaribagh				
	Ramgarh				
	Lohardaga				
	Ranchi				
	Khunti				
	Sehebganj				
	West Singhbum				
Karnataka	Bagalkote	2.44	1.08	0.97	89.81
	Bidar	1.77	1.58	1.52	96.20
	Bijapur	3.06	1.42	1.32	92.96
	D.Kannada				
	Gulbarga &Yadgir	4.24	3.61	3.47	96.12
	Raichur	2.11	1.94	1.74	89.69
	U.Kannada				
	Udipi				
Kerala	Alappuzha				
	Ernakulam				
	Kannur	2.77	2.40	1.85	77.08
	Kasargod	1.41	1.26	0.88	69.84
	Kollam				
	Kottayam				
	Kozhikode	3.13	2.86	1.96	68.53
	Mallapuram	4.25	3.96	2.67	67.42
	Palakkad	2.96	2.61	2.10	80.46
	Thrissur				
	Thiruvananthapuram	3.48	3.17	2.46	77.60
Madhya Pradesh	Chhatarpur	1.97	1.87	1.54	82.35
	Chhindwara	2.33	2.12	1.91	90.09
	Damoh				
	Datia	0.82	0.76	0.69	90.79
	Katni	1.39	1.29	1.14	88.37
	Panna	1.08	0.98	0.85	86.73
	Rewa				
	Sagar				
	Satna	2.36	2.15	1.93	89.77
	Tikamgarh	1.56	1.40	1.21	86.43
	Umaria	0.68	0.61	0.55	90.16
Maharashtra	Akola				
	Amravati	2.59	2.42	2.2	90.91
	Bhandara	1.27	1.22	1.16	95.08
	Chandrapur	2.42	2.29	2.11	92.14

	Gadchiroli	1.18	1.12	1.01	90.18
	Gondia	1.35	1.26	1.15	91.27
	Jalgaon				
	Latur	1.15	1.93	1.68	87.05
	Nagpur	2.94	2.86	2.60	90.91
	Nanded	2.90	2.78	2.78	100.00
	Nandurbar	0.28	0.28	0.25	89.29
	Osmanabad	1.67	1.58	1.44	91.14
	Sindhudurg				
	Solapur	0.9	0.82	0.7	85.37
	Thane	5.48	5.28	4.56	86.36
	Wardha	1.41	1.34	1.28	95.52
	Yawatmal	2.58	2.58	2.37	91.86
Orissa	Angul	1.33	1.19	1.13	95.55
	Balasore	2.42	2.13	1.94	91.08
	Bhadrak	1.55	1.38	1.28	92.70
	Boudh	0.45	0.42	0.39	92.80
	Cuttack	2.72	2.39	2.07	86.50
	Deogarh	0.30	0.30	0.27	89.85
	Dhenkenal	1.23	1.11	1.07	95.90
	Gajapati				
	Ganjam	3.70	3.39	2.95	87.01
	Jagatsinghpur	1.34	1.15	1.03	89.67
	Jajpur	1.94	1.71	1.62	94.77
	Jharsuguda	0.57	0.52	0.48	93.09
	Kendrapara	1.58	1.35	1.28	95.05
	Khurda+ BMC				
	Koraput				
	Malkangiri				
	Nawarangpur				
	Nayagarh	0.98	0.89	0.80	89.53
	Nuapada				
	Puri	1.74	1.62	1.49	92.41
Tamil Nadu	Chennai				
	Cuddalore				
	Kanchipuram + Saidapet				
	Kanyakumari				
	Nagapattinam				
	Perambalur+Ariyalur				
	Pudukottai +Aranthangi				
	Thanjavur				
	Thiruvallur + Poonamallee				
	Thiruvannamalai + Cheyyar				
	Thiruvarur				
	Trichy				
	Vellore +Thiruppattur				
	Villupuram + Kallakurichi				

	Madurai				
	Virudhunagar				
	Thirunelveli				
	Tuticorin				
	Krishnagiri				
	Karur				
Uttar Pradesh	Allahabad	6.09	5.42	3.53	65.11
	Ambedkarnagar	2.50	2.23	1.31	58.85
	Auraiya	1.40	1.17	0.81	69.73
	Azamgarh	4.75	4.03	2.84	70.30
	Baerilly	4.56	3.88	2.73	70.44
	Ballia	3.29	2.80	2.08	74.36
	Balrampur	2.20	1.83	1.22	67.06
	Banda	1.83	1.58	1.27	80.37
	Barabanki	3.33	3.00	1.87	62.49
	Basti	2.52	2.08	1.60	76.94
	Beharaich	3.55	2.84	2.15	75.92
	Chandauli	2.13	1.78	1.28	71.78
	Chitrakoot	1.01	0.93	0.74	80.48
	Deoria	3.17	2.17	1.73	79.53
	Etawah	1.63	1.35	1.03	76.17
	Faizabad	2.53	2.14	1.82	85.24
	Farrukhabad	1.93	1.64	1.17	71.44
	Fatehpur	2.69	2.42	1.26	52.22
	Ghazipur	3.70	3.15	2.01	63.84
	Gonda	3.51	2.94	2.02	68.62
	Gorakhpur	4.53	3.90	2.79	71.51
	Hamirpur	1.15	0.98	0.59	60.34
	Hardoi	4.18	3.45	2.17	63.06
	Jalaun	1.71	1.54	1.17	76.00
	Jaunpur	4.85	4.10	2.45	59.75
	Kannauj	1.69	1.39	1.00	71.72
	Kanpur Dehat	1.84	1.60	1.24	77.16
	Kanpur nagar	4.67	3.97	3.17	79.85
	kaushambi	1.76	1.47	0.97	65.88
	Kheri	4.10	3.48	2.68	77.10
	Kushinagar	3.64	3.12	2.22	71.05
	Lucknow	5.33	4.40	2.68	60.93
	Maharajganj	2.72	2.30	1.66	72.36
	Mahoba	0.90	0.80	0.62	76.91
	Mau	2.25	1.86	1.22	65.28
	Mirzapur	2.55	2.38	1.54	64.86
	Pilibhit	2.08	1.76	1.23	70.08
	Pratapgarh	3.24	2.80	1.92	68.31
	Raibareli	3.38	2.00	1.81	90.71
	Rampur	2.39	1.86	1.53	82.10
	Sant Kabir nagar	1.75	1.49	0.98	65.86

	Sant Ravidas nagar (Bhadhoi)	2.03	1.36	0.97	71.48
	Shahjahanpur	3.07	2.45	1.79	73.07
	Shravasti	1.14	0.95	0.78	82.19
	Siddharthnagar	2.61	2.25	1.56	69.30
	Sitapur	4.57	3.48	2.60	74.74
	Sonbhadra	1.90	1.71	1.28	74.98
	Sultanpur	2.23	1.81	1.31	72.51
	Unnao	3.25	2.65	1.85	70.04
	Varanasi	4.03	3.07	2.22	72.34
	Amethi	1.64	1.28	1.05	81.97
West Bengal	24-Parganas North	10.22	9.18	7.46	81.26
	24-Parganas South				
	Bankura	4.60	3.48	3.08	88.51
	Bardwan	8.76	6.37	5.56	87.28
	Birbhum	3.60	3.15	2.82	89.52
	Cooch-Behar	2.88	2.61	2.36	90.42
	Malda	4.12	3.78	3.10	82.01
	Midhnapur East				
	Midhnapur West				
	Murshidabad	7.24	6.66	6.22	93.39
	Nadia				
	Purulia	3.03	2.71	2.39	88.19
Puducerry	Puducherry				
Andaman & Nicobar	Andaman & Nicobar	0.47	0.42	0.38	90.48
Daman & Diu	Daman & Diu				
D & Nagar Haveli	D & Nagar Haveli	0.39	0.35	0.33	94.29
Lakshadweep	Lakshadweep	0.06	0.06	0.05	83.33
	Total	**460.62**	**309.19**	**252.97**	**81.82**

Annexure-II

Updated Line Listing of Lymphoedema, Hydrocele and Hydrocelectomy Cases since 2004-05

Sl. No.	LF endemic States	Lymphoedema	Hydrocele	Hydrocelectomy
1	Andhra Pradesh	99547	5224	2679
2	Telangana	58640	1939	325
3	Assam	1421	1783	507
4	Bihar	216666	173306	1940
5	Chhattisgarh	6087	7834	3889
6	Goa	149	0	561
7	Gujarat	4591	1169	6931
8	Jharkhand	96993	41671	12915
9	Karnataka	16772	3338	1613
10	Kerala	17585	1332	5237
11	Madhya Pradesh	4046	4551	9993
12	Maharashtra	48989	35884	34303
13	Orissa	79912	37085	139
14	Tamil Nadu	39905	19618	2715
15	Uttar Pradesh	104607	41415	23324
16	West Bengal	79798	30831	237
17	A&N Islands	121	67	400
18	D & N Haveli	71	40	100
19	Daman & Diu	136	0	487
20	Lakshadweep	254	87	0
21	Puducherry	1304	133	2547
	Total	**877594**	**407307**	**110842**

Annexure-III

Proforma for submitting monthly report of ELF activities to NVBDCP by SPO. State/UT:……. Month reported upon:……. Year:……..

Sr. No.	Activity	Report
1	**Annual MDA**	
A	MDA circular to districts/PHCs & data submission	
B	Activities in respect of Mf survey	
C	DEC procurement, receipt & distribution	
D	Albendazole receipt & distribution	
E	Any type of meeting regarding MDA	
F	Any training about MDA	
G	Any decision about MDA	
H	Social mobilization activities for MDA:	
I	IEC/BCC activities about MDA	
J	Supervision & monitoring of MDA	
K	MDA report writing	
L	Any other activities not mentioned above (specify)	
2	**Transmission Assessment Survey**	
A	Desk work on data analyses for TAS	
B	Activities in respect of Additional Mf Survey	
C	Data collection about TAS	
D	Training & demonstration about TAS	
E	Any meeting about TAS	
F	Any decision about TAS	
G	Activities about procurement of ICT cards, receipt of supply and distribution	
H	Conduction, monitoring & supervision of TAS	
I	Report writing	
J	Any other activities not mentioned above (specify)	
3	**Morbidity management** (includes promotion of 'home based care' with supply of 'morbidity management kit' to lymphoedema cases and hydrocele operation)	
A	Desk work (including data analyses, correspondence, issuance of order etc.) about morbidity management	

B	Activities about updating the line list	
C	Activities in respect of procurement of ‘morbidity management kit’, receipt of supply & distribution to PHCs, CHCs, BPHCs, hospitals	
D	Training programme for Medical Officers on morbidity management	
E	Activities related to training of lymphoedema patients & distribution of ‘morbidity management kit’ to them	
F	Activities about operation of hydrocele cases	
G	Any other activities not mentioned above (specify)	
4	**Post MDA Surveillance**	
A	Entomological surveillance activity	
B	Activity related to microfilaria prevalence	
C	Any other activities not mentioned above (specify)	

Responses should be written in the blank rows. Write 'NA' (Not Applicable) wherever required.