www.ifrc.org
Saving lives, changing minds.

Disaster relief emergency fund (DREF)
Madagascar : Plague outbreak

International Federation of Red Cross and Red Crescent Societies

DREF operation n ° MDRMG010
GLIDE no. EP-2013-000156-MDG
13 January, 2014

The International Federation of Red Cross and Red Crescent (IFRC) Disaster Relief Emergency Fund (DREF) is a source of un-earmarked money created by the Federation in 1985 to Ensure That immediate financial backing is available for Red Cross and Red Crescent emergency response. The DREF is a vital share of the International Federation's disaster response system and Increases the Ability of National Societies to responds to disasters.

CHF 137,131 has been allocated from the IFRC's Disaster Relief Emergency Fund (DREF) to support Madagascar Red Cross Society in delivering immediate support to approximately 33,125 beneficiaries. Unearmarked funds to repay DREF are Encouraged.

Summary:
The epidemic alert on clustered cases of deaths and disease strongly suspected to be pneumonic plague occurred since the month of September 2013 in a remote village of Beranimbo, a rural municipality of Ampatakamaroreny, located 130km from the capital district of Mandritsara, which is itself located 945km north of the capital Antananarivo. The alert was issued by the Ministry of Public Health. The outbreak of the epidemic began 5 October, 2013 with five deaths clustered in the village of Beranimbo and spreading to surrounding villages and towns from November. This situation created panic in the population, causing massive displacement to other villages or to other neighbouring districts such as Soanierana Ivongo in the Analanjirofo region on the east coast. A dozen cases were later reported in the district of Soanierana Ivongo according to official sources.

Along with this, in the Region Vatovavy Fitovinany in the Greater South East, fatal cases of pneumonic plague are also reported in the district of Ikongo.

Finally, two other outbreaks of bubonic plague this time, are reported in the central highlands of the health district of Tsiroanomandidy in the north-western part of the Province of Antananarivo, with 3 cases including 1 death, as well as in the Ikalamavony health district (Province of Fianarantsoa), with 5 cases with 3 deaths.

Volunteers led by Regional Coordinators of the Malagasy Red Cross conducted active case finding as well as activities to boost the prevention of disease in areas that are likely to be affected by the epidemic. Social mobilization activities in the fight against the spread of the plague will be the main actions and increased surveillance to prevent human to human transmission. In areas where deaths have occurred, coordination and planning is done by the local staff and the Ministry of Health because of the extremely dangerous nature of the contamination of plague. Interventions will be coordinated and supervised by the CRM volunteering doctors and doctors from the Ministry of Health whose main roles are to detect and transfer suspects cases of the plague to health facilities. Several evaluations are needed for the identification of the needs of the displaced people that are fleeing the epidemic especially in the District of Mandritsara and Soanierana Ivongo.

This operation is expected to be implemented over four months, and will therefore be completed by 31 May 2014; a Final Report will be made available three months after the end of the operation by 31 August 2014.

<Click here for the DREF budget; here for contact details and here to view the map of the affected area>

The situation

The plague affects the central high lands region episodically and frequently in the rural areas but rarely in towns. It has an annual seasonal increase between October and March, although cases can occur throughout the year.

The disease in humans follows *Murine Epizooties* (epidemics in rats) which often pass unnoticed. The occurrence of cases of secondary pneumonic plague results often in family or community epidemics. But in 2013, the epidemic has affected five districts and caused several deaths as well as the displacement of populations to other region carrying with them the plague disease.

Table 1: Summary of the changes in the plague epidemic in 44 districts.(In 2013 the disease was mainly concentrated in 5 districts)

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of notified cases	658	933	1214	421	412	583	540	312	324	648	463	577
% tested cases	85.7	90.1	96.5	90	91.5	82.5	91.66	93.3	95.6	96.14	97	82.7
% laboratory confirmation	37.6	38.4	35.8	31.1	40.05	52.89	57.61	52.2	48.3	55.86	61.5	27.2
% confirmation by rapid testing	54.1	63	63	57	62.59	72.76	72.92	63.2	75.8	62.92	66	48.3
% reported cases of bubonic plague	98.4	94.1	89.3	89.9	97.4	94.6	92.7	87.3	89.2	86.6	83.5	67
% confirmed cases of bubonic plague	96.6	91.9	94.3	9.1	96.6	93	94.7	91.7	93.9	88.12	84.1	37.1
% reported cases of pneumonic plague	1.6	5.8	10.3	10.1	2.55	5.4	7.25	12.7	10.75	13.44	10.5	34,5*
% confirmed cases of pneumonic plague	1	4.2	2.8	3.6	3.35	2.9	3.36	6.3	2.6	3.19	3.19	10
% Mortality (all cases)	14.2	11.8	8.1	8.3	12.37	11.83	13.29	12.7	9.3	18.23	17.5	16
(% Mortality (confirmed cases)	22.5	19.9	14.8	24	16.55	16.41	15.86	19.8	11.3	29.68	27.5	21.2

Comparison 2012 versus 2013

Period : 1 January to 19 December	2012	2013
Number of reported cases	382	577
Mortality rate	12	15.9
Incidence of pneumonic plague	5%	34%

Determining factors of the outbreak are related to the poor hygiene conditions in villages which lead to an increase in rats population as well as the increase in the number of Puce and rodents infected with plague bacteria, inadequate agricultural production in rural areas leads to the migration of rodents to suburban areas or cities where rats carrying plague bacteria also follow. In addition, the lack of access and isolation of affected villages without health coverage further exacerbate the situation For example, Beranimbo is 40 kilometres from the county town, accessible only on foot, the county town itself being located 100 km away from the capital of the district (Mandritsara).

This situation is also aggravated by the political crisis since 2009. Over 92% of the Malagasy population live below the poverty line, the lack of recognition of the government by traditional donors resulting in reduced state funding has led to cutting of the operating budget of the Malagasy state. This reduced of state budget has in turn led to negligence or non-functioning of services that clean roads and cities resulting in piling up of garbage in many towns and cities.

Table 2:Epidemic report 27 December 2013 (*Sources* : district health inspectors and local volunteers)

Health districts	Patients and families treated and followed up by doctors and army personnel (military)	Number of deaths	Remarks
Mandritsara	24	28	Many cases were not reported because of population movement
Soanierana Ivongo	28	11	1 suspected case of pneumonic plague is being followed up by the military
Andilamena	NA	3	Non official data, but being used for planning purposes by healthcare staff. The data was released on December the 20th 2013.
Sub total North	***52***	***39***	
Ikongo	*15*	*10*	All the people who attended the funerals fell sick then died 2 days later according to volunteers, but these cases were not reported *(source : MRCS volunteers)*
Sub total South	***15***	***10***	
Tsiroanomandidy	44	8	Only one case was reported because accessibility problems
Manajakandriana	NA	1	The report remains confidential because of the geographic location of Analamanga in the capital of Madagascar. 60% of examined rats are carriers of *Yersinia Pestis*
Ikalamavony	NA	NA	
Sub Total HTC	***44***	***9***	
Grand Total	**111**	**58**	

Coordination and partnerships

The Ministry of Health with the support of the National Bureau of Risk Management and Disaster are the primarily responsible for Public Health in Madagascar. Partners with the Malagasy Red Cross provide their expertise in the health cluster including WHO as the lead. This plague epidemic has been managed by the Ministry of Health since the notification of the first case until now. Their response has been focused on treatment of cases and prevention of new cases through prophylaxis treatment in villages to prevent transmission.

Red Cross and Red Crescent action

Supported by IFRC, the response activities will be carried out both at the national headquarters of the MRCS and at the district level in the affected regions, with the MRCS health department guiding and monitoring the implementation of the training and response plan outlined below. This will be done in coordination with the Ministry of Health to ensure the training and response is in line with government strategy on prevention, social mobilization and monitoring of the disease trends.

The needs

Previously, the activities of management and sensitization carried out by village mobilizers and supported by the Ministry of Health were sufficient to limit the cases of plague and only rarely did cases of pneumonic plague happened. Since the political crisis in the country, several prevention activities have not been carried out by the Ministry of Health due to funding problems and inadequate human resources. No other actor has responded to the outbreak to date. As a result of these challenges, the government has requested that MRCS provide emergency assistance. Prioritized activities to reduce the spread of plague cases is the focus on social mobilization and education of the population on vector control and cleaning activities in high risk villages.

Selection criteria

The target areas for intervention and social mobilization activities are based on the epidemiological reports issued by the Ministry of Health, to identify most affected and high risk districts within the affected regions.

The intervention zones of the Malagasy Red Cross consist of five districts where several villages upstream and involving thousands of families are affected. Three sub-districts are targeted in each district, and 15 municipalities (commune) will be reached in each sub- Districts affected by the epidemic. These are:

- Mandritsara the Sofia Region
- Soanierana Ivongo the Analanjirofo Region
- Tsiroanomandidy the Bongolava Region
- Ikongo Area Vatovavy Fitovinany
- Manjakandriana the Analamanaga Region.

The beneficiaries for this operation include the following, identified as the population from the targeted areas:

Families	6,625 (up to 33,125 people)
Patients	1,325
Volunteers	225
NS staff	13

The proposed operation

The overall objective is to contribute to reducing mortality and morbidity due to the plague in the affected areas. The intended outcomes are:

- mobilizing the population in the fight against the plague through education,
- facilitate the transfer of patients to emergency treatment centres,
- providing support to health workers on awareness raising and on improving people's knowledge on the fight against the plague.

MRCS will train 225 volunteers in the five affected regions on the dissemination of appropriate messages in response to the plague outbreak. Due to the geography and difficult access to some of the affected areas, an initial training of trainers will be conducted at headquarters before the information is cascaded further to the volunteers in the regions. However, the distance and difficulty in access has resulted in a higher than usual workshop and training budgets. Volunteers will be provided with protective gear for the activities planned.

The focus of the operation will be on flea and rat control in areas of sylvatic transmission (in a 5km radius) which include the below activities, all supported by social mobilization and communication:

1. Improve general sanitation
2. House repairs (community implemented) to block holes and rat entry.
3. Education to teach community to repair houses
4. Clean up solid waste and burn as well as clear areas of rat habitat such as garbage etc
5. Fogging of high volume smog (similar to what is sometimes use for mosquitoes but different mix)

In other areas where the transmission is likely to be person-to-person, the activities would induce

1. Social mobilisation to limit spread (pandemic flu type key messages)
2. Early case identification through active surveillance
3. Referral of cases

In support of MRCS's actions, IFRC will deploy a technical specialist to train and support the detailed assessment, and support the revision of the response plan as necessary. Due to the extremely limited availability of specialists with experience in plague response and the lack of such capacity within IFRC, an external specialist has been identified and will be brought in to assist in this operation. IFRC will also deploy its health and water and sanitation specialists to provide further assistance as necessary, as well as to develop longer-term plans for the region to respond to such outbreaks in the future. To support this, an end of operation review and lessons learnt workshop has also been budgeted for.

Emergency Health and Care

Outcome 1: Reduced morbidity and mortality among approximately 30,000 people (6,625 families) through health promotion and disinfection activities, supporting early case detection and community case management in five districts	
Outputs (expected results)	**Activities planned:**
• The Red Cross volunteers have the necessary capacity to respond to the plague outbreak as well as prevent further outbreaks. • Up to 6,625 families have increased their knowledge on proper health practices necessary to prevent further spread of the plague in their communities.	• Continuous assessment and reporting of the evolving situation and spread of disease. • Organize training on plague outbreak management with the support of IFRC-contracted external technical support. • IEC/BCC materials (posters, flyers) on plague and ways to control its risk produced, printed and distributed to enhance positive behaviour change. • Produce 225 protective and visibility gear. • Train volunteers on health promotion messages to be disseminated. • Deploy volunteers to identified high risk areas. • Disseminate key plague prevention messages to communities using beneficiary communication tools such as public gatherings, home visits, radio and television spots. • Conduct a lessons learned workshop on the plague outbreak. • Refer suspected cases to closest available health facilities for treatment. • Monitor and report on activities.

Water Sanitation and Hygiene Promotion

Outcome: The immediate risks to the health of among approximately 30,000 people (6,625 families) through hygiene promotion and vector control activities in five affected districts is reduced.	
Outputs (expected results)	**Activities planned:**
• Up to 6,625 families have increased their knowledge on proper hygiene and sanitation practices necessary to prevent further spread of the plague in their communities.	• Orient 225 volunteers on hygiene promotion and vector control activities. • Conduct house to house visits for hygiene promotion and sanitation. • Engage vector control specialist (focus on plague) for assessment and training. • Deploy volunteers to identified high risk areas. • Disseminate key plague prevention messages to communities using beneficiary communication tools such as public gatherings, home visits, radio and television spots. • Volunteers to guide heads of households and communities in rehabilitating their homes to prevent rats by blocking all hole. • Volunteers to train heads of households and communities in hygiene promotion and environmental sanitation including garbage removal and the fight against the plague. • Procure and distribute protective gear for volunteers involved in vector control activities. • Monitor and report on activities.

Contact information

For further information specifically related to this operation please contact:

- Malagasy Red Cross : Fanja Nantenaina Ratsimbazafy, Secretary General of Malagasy Red Cross; phone: +261 34 14 221 03 ; email : sg@crmada.org
- **IFRC Regional Representation:** Finnjarle Rode, Regional Representative for East Africa; Nairobi; phone: +254 20 283 5000; email: finnjarle.rode@ifrc.org
- **IFRC Africa Zone:** Daniel Bolaños, Disaster Management Coordinator for Africa; Nairobi; phone: +254 (0)731 067 489; email: daniel.bolanos@ifrc.org
- **IFRC Geneva:** Christine South, Operations Quality Assurance Senior Officer; phone: +41.22.730.45 29; email: christine.south@ifrc.org
- **IFRC Regional Logistics Unit (RLU):** Ari Mantyvaara Logistics Coordinator, Dubai; phone +971 50 4584872, Fax +971.4.883.22.12, email: ari.mantyvaara@ifrc.org

For Resource Mobilization and Pledges:

- **IFRC East Africa Region:** Diana Ongiti, Senior Resource Mobilization Officer; mobile phone: + 254 786 546 031; email: diana.ongiti@ifrc.org

For Performance and Accountability (planning, monitoring, evaluation and reporting):

- **IFRC Africa Zone:** Robert Ondrusek, PMER/QA Delegate for Africa; Nairobi; phone: +254 731 067277; email: robert.ondrusek@ifrc.org

---

How we work

All IFRC assistance seeks to adhere to the Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in Disaster Relief and the Humanitarian Charter and Minimum Standards in Disaster Response (Sphere) in delivering assistance to the most vulnerable.
The IFRC's vision is to inspire, encourage, facilitate and promote at all times all forms of humanitarian activities by National Societies, with a view to preventing and alleviating human suffering, and thereby contributing to the maintenance and promotion of human dignity and peace in the world.

The IFRC's work is guided by Strategy 2020 which puts forward three strategic aims:

1. Save lives, protect livelihoods, and strengthen recovery from disaster and crises.
2. Enable healthy and safe living.
3. Promote social inclusion and a culture of non-violence and peace.

DREF OPERATION

13/01/2014

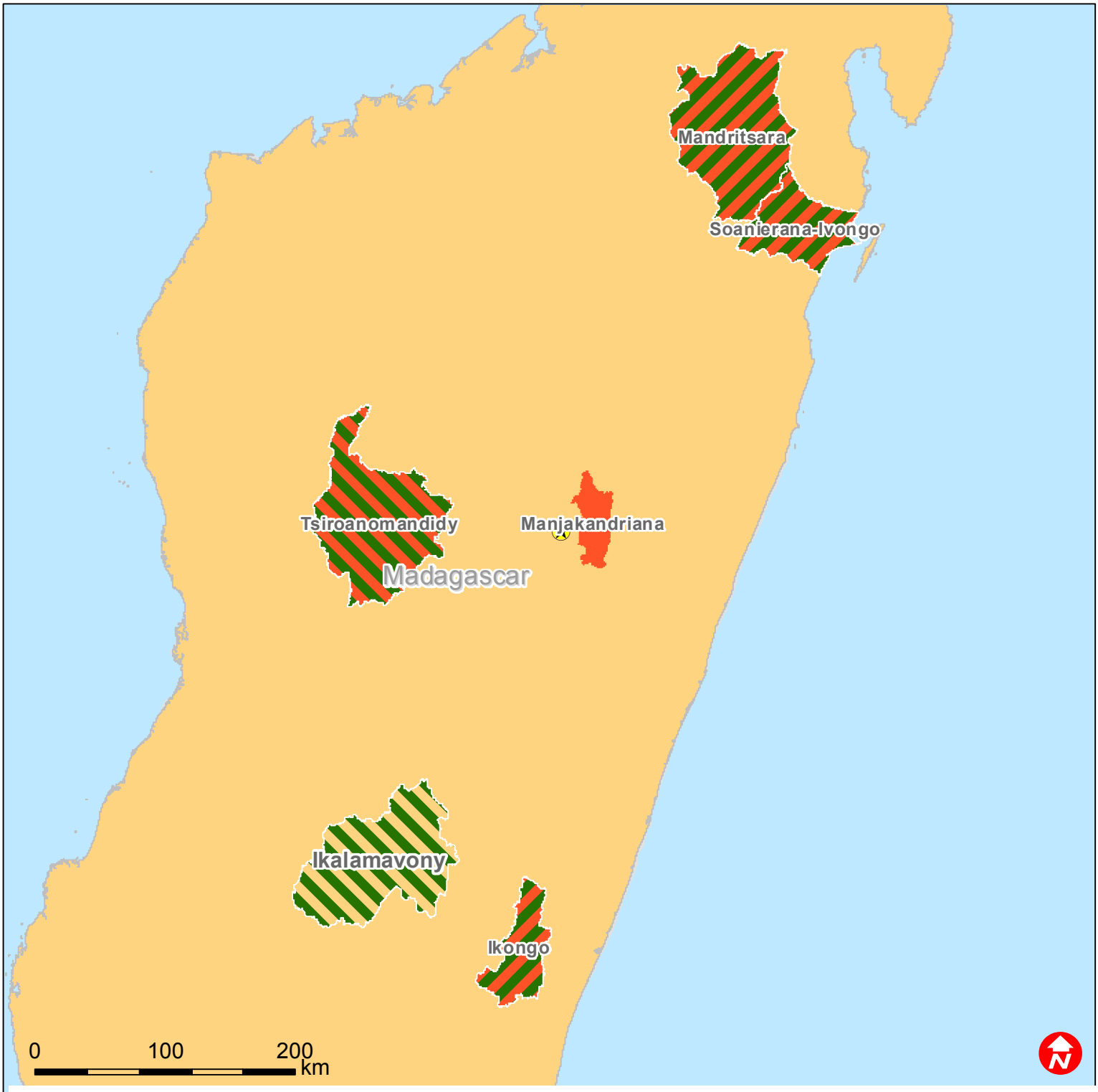
MADAGASCAR:Plague Outbreak

	Budget Group	DREF Grant Budget CHF
500	Shelter - Relief	0
501	Shelter - Transitional	0
502	Construction - Housing	0
503	Construction - Facilities	0
505	Construction - Materials	0
510	Clothing & Textiles	0
520	Food	0
523	Seeds & Plants	0
530	Water, Sanitation & Hygiene	18,375
540	Medical & First Aid	0
550	Teaching Materials	0
560	Ustensils & Tools	0
570	Other Supplies & Services	0
571	Emergency Response Units	0
578	Cash Disbursments	0
	Total RELIEF ITEMS, CONSTRUCTION AND SUPPLIES	**18,375**
580	Land & Buildings	0
581	Vehicles Purchase	0
582	Computer & Telecom Equipment	0
584	Office/Household Furniture & Equipment	0
587	Medical Equipment	0
589	Other Machiney & Equipment	0
	Total LAND, VEHICLES AND EQUIPMENT	**0**
590	Storage, Warehousing	0
592	Dsitribution & Monitoring	0
593	Transport & Vehicle Costs	8,969
594	Logistics Services	0
	Total LOGISTICS, TRANSPORT AND STORAGE	**8,969**
600	International Staff	
661	National Staff	0
662	National Society Staff	19,875
667	Volunteers	20,338
	Total PERSONNEL	**40,213**
670	Consultants	3,000
750	Professional Fees	0
	Total CONSULTANTS & PROFESSIONAL FEES	**3,000**
680	Workshops & Training	25,995
	Total WORKSHOP & TRAINING	**25,995**
700	Travel	6,000
710	Information & Public Relations	24,710
730	Office Costs	1,000
740	Communications	500
760	Financial Charges	0
790	Other General Expenses	0
790	Shared Support Services	0
	Total GENERAL EXPENDITURES	**32,210**
599	Programme and Supplementary Services Recovery	8,370
	Total INDIRECT COSTS	**8,370**
	TOTAL BUDGET	**137,131**

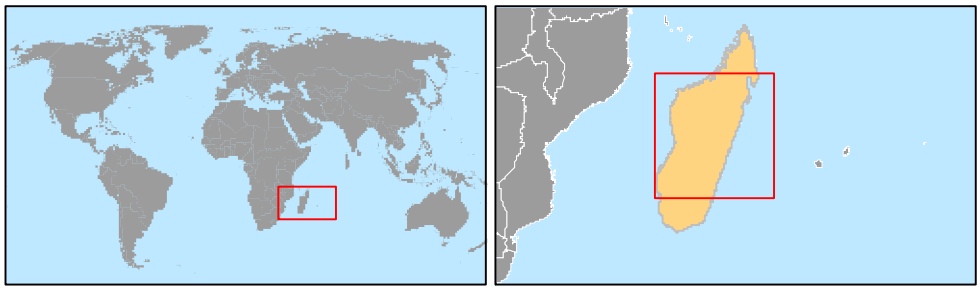
International Federation of Red Cross and Red Crescent Societies
Fédération internationale des Sociétés de la Croix-Rouge et du Croissant-Rouge
Federación Internacional de Sociedades de la Cruz Roja y de la Media Luna Roja
الاتحاد الدولي لجمعيات الصليب الأحمر والهلال الأحمر

MDRMG010
EP-2013-0000156-MDG
13 January 2014

Madagascar: Epidemic



The maps used do not imply the expression of any opinion on the part of the International Federation of Red Cross and Red Crescent Societies or National Societies concerning the legal status of a territory or of its authorities - Map data sources: ESRI, DEVINFO, GADM, International Federation, MDRMG010.mxd
Map created by DCM/GVA



Affected districts

- Bubonic plague
- Pneumonic plague
- Key areas for interventions