

www.ifrc.org  
Saving lives,  
changing minds.

# Emergency Plan of Action (EPoA) Madagascar: Plague (Epidemic)

 International Federation  
of Red Cross and Red Crescent Societies

<b>DREF n°</b> MDRMG013	<b>Glide n°</b> EP-2017-000144-MDG
<b>Date of issue:</b> 7 October 2017	<b>Expected timeframe:</b> 3 months, Expected end date: January 2018;
<b>Project Manager/Budget Manager IFRC:</b> Marshal Mukuware – DM Delegate, EAIOI CCST	<b>National Society Focal Point:</b> Andoniaina Ratsimamanga - Secretary General
<b>DREF allocated:</b> CHF 362,937	
<b>Total number of people affected: Current cases: 194 as of October 3<sup>rd</sup></b>	<b>Number of people to be assisted: 2 million people</b>
<b>Host National Society presence (n° of volunteers, staff, branches):</b> 895 volunteers through 700 volunteers will be mobilized through the DREF, 39 NDRT/BDRTs, 27 full-time staff and 8 bra	
<b>Red Cross Red Crescent Movement partners actively involved in the operation:</b> IFRC, ICRC, French Red Cross' PIROI, Norwegian Red Cross, Danish Red Cross, Italian Red Cross and German Red Cross	
<b>Other partner organizations actively involved in the operation:</b> World Health Organisation and Ministry of Public Health	

## A. Situation analysis

### Description of the disaster

Madagascar has suffered regular seasonal outbreaks of bubonic plague over the last 4 years, normally extending from August to April each year. However, this year, the first cases of person to person to transmission via pneumonic plague have occurred. The first death of a patient infected with the plague was notified on the 27<sup>th</sup> of August. A total of 20 districts across Madagascar have reported cases of the plague and as of 3 October, the cumulative number of cases is 194 with 50 deaths (case fatality rate 15.5)<sup>1</sup> recorded, 124 of these cases being recorded as pneumonic transmission. The occurrence of pneumonic transmission in urban areas, increases the risk of substantial spread, and high cases loads significantly and requires urgent and comprehensive response to save lives.

Specimens from suspected cases were submitted to the *Institute Pasteur de Madagascar* and confirmed cases were identified by either polymerase chain reaction or rapid diagnostic tests. Antananarivo is one of the most affected areas followed by the port city of Toamasina, and the rural district of Faratsiho. Of the total deaths from the plague, one is a foreigner who was visiting Madagascar, and to date 8 health care workers have been infected.

In order to control pneumonic plague, swift and comprehensive response including early identification and referral of cases, effective risk communication and community engagement, infection prevention and control, safe burials, and vector control is required.

From 1 August to 04 October 2017, 10 Regions across 20 Districts and 115 Villages in Madagascar have been affected by the plague, namely:

REGIONS	Villages of Concern
Mangoro Alaotra	6
Amoron'i Mania	1
Analamanga	55

<sup>1</sup> WHO. October 4, 2017. Plague Outbreak Madagascar. Retrieved from <https://reliefweb.int/sites/reliefweb.int/files/resources/Ext-PlagueMadagascar4102017.pdf>

Atsinanana	23
Betsiboka	1
Boeny	4
Bongolava	9
Haute Matsiatra	1
Itasy	9
SAVA	2
Vakinankaratra	4

Plague is an infectious disease caused by the bacteria *Yersinia pestis*, a zoonotic bacteria, usually found in small mammals and their fleas. It is transmitted between animals from their fleas. Humans can be contaminated by the bite of infected fleas, through direct contact with infected materials or by inhalation known as bubonic plague, or via person to person transmission through droplets, known as pneumonic plague.

Plague can be a very severe disease in people, particularly in its septicaemic and pneumonic forms, with a case-fatality ratio of 30%-100% if left untreated. The pneumonic form is invariably fatal unless treated early, is especially contagious and can trigger severe epidemics through person-to-person contact via droplets in the air.<sup>2</sup>

The plague is endemic to Madagascar with an estimated 400 cases of the bubonic plague being recorded annually. The plague in Madagascar is mainly spread by zoonotic transmission (bubonic). People infected with plague usually develop acute febrile disease with other non-specific systemic symptoms after an incubation period of one to seven days, such as sudden onset of fever, chills, head and body aches, and weakness, vomiting and nausea. Infected persons can then develop septicemia or progress to secondary pneumonic plague. Once this has occurred, these patients can then spread the disease person to person, with a much shorter incubation period increasing substantially the number of people that can be infected, especially in urban areas.

Untreated pneumonic plague can be rapidly fatal, so early diagnosis, referral and treatment is essential for survival and reduction of transmission and complications. Antibiotics and supportive therapy are effective against plague if patients are diagnosed in time. Pneumonic plague can be fatal within 18 to 24 hours of disease onset if left untreated.<sup>3</sup>

## Summary of the current response

### Overview of Host National Society

The Malagasy Red Cross Society (MRCS) triggered a Red Alert in 20 districts which have reported suspected, probable and confirmed cases. The National Society (NS) is working to activate the community based monitoring and community sensitization activities to raise awareness on the plague without creating panic. MRCS has mobilised 150 volunteers as part of the initial response in Antananarivo and Toamasina districts to conduct community sensitisation activities. Three regions have been prioritised as part of the initial response where the NS is planning to focus its response i.e. Analamanga, Moramanga and Toamasina.

MRCS staff and volunteers have been responding to plague outbreaks over the last 3 years including a long-term prevention and surveillance project. The NS has sufficient capacity to support community mobilisation, community sensitisation and key messaging in bubonic plague outbreaks, however, the transition to pneumonic plague may require additional technical and implementation support. The NS is currently using the CBS and CBHFA module for community based activities. MRCS implemented a Community Based Surveillance (CBS) project which closed in the first half of 2017, the NS is working to re-activate the CBS system. While the DREF is being implemented, the NS will work towards a long-term prevention programme to enhance capacities to deal with future outbreaks, which will be supported by partner national societies in country.

MRCS received antibiotics from the Ministry of Public Health for the volunteers who have been responding to the outbreak at the initial stage of the operation. However, these antibiotics received by the National Society have been distributed, more supplies may be required as the number of volunteers being mobilised increases.

### Overview of Red Cross Red Crescent Movement in country

The IFRC is supporting the MRCS in the implementation of an emergency appeal operation launched after an Enawo Cyclone disaster that affected the country in March 2017. The focus of the operation is to meet the needs of 25,000

<sup>2</sup> <http://www.who.int/csr/disease/plague/en/>

<sup>3</sup> <http://www.who.int/mediacentre/factsheets/fs267/en/>

people affected by the cyclone through improved access to Shelter, Water Sanitation and Hygiene. The operation is being implemented in three regions; Sava, Analanjirofo and Atsinanana. To enhance the quality of the operation and response the IFRC deployed an Operations Manager who is based in the NS HQ and works with the technical staff in the implementation of the operation.

The IFRC in addition to the operations manager provides technical and strategic support to MRCS through the Eastern Africa and Indian Oceans Islands cluster in Nairobi and the Regional Office in Nairobi. For the Plague response IFRC will deploy surge capacity with the following profiles to work with MRCS staff and volunteers;

- Epidemiology support for contact tracing / CBS
- Health Promotion / Community engagement
- Health Coordinator (infectious disease)
- RDRT for Emergency Health

A number of PNSs are working with MRCS with in-country presence. The Norwegian and Danish Red Cross have implemented Plague prevention and response programmes which has enhanced the capacity of MRCS to respond to related outbreaks. The Norwegian RC supported the NS with a CBS project which presents a good starting point for the planned response. MRCS with support from movement partners will expand the CBS model supported by Norwegian RC in the DREF response.

PIROI is strongly monitoring the situation in Madagascar and has PPEs in stock which are ready to be deployed to the NS. Danish Red Cross has committed 50,000 euro to MRCS to support the response.

#### **Movement Coordination**

In-country PNSs and IFRC are working closely with MRCS to plan for the response. The partners are monitoring the situation and assisting MRCS to develop a response plan and map out available resources and identify gaps for additional support. The Head of Health for MRCS is convening meetings to update partners.

#### **Overview of non-RCRC actors in country**

WHO has deployed experts to work with the Ministry of Public Health to develop a response plan and support the development of key messages for the community sensitization campaigns. Crisis Meetings are being convened by the Ministry of Public Health where the NS is participating. There is discussion with the Government of Madagascar to enable the deployment of technical experts from the CDC and other technical partners.

MRCS is currently the only partner/organization working with WHO and participates actively in the coordination meetings.

#### **Needs analysis, beneficiary selection, risk assessment and scenario planning**

The pneumonic plague disease enters through the lungs via airborne transmission. Infections can only be resolved through use of antibiotics early in the course of the illness. Without antibiotics, the disease is most often fatal. The risk of spread of the plague via pneumonic transmission is very high, especially in urban areas. Although treatable and preventable, the weak health system in Madagascar may not be able to respond effectively, and may, without support, act as a further hub of transmission.

While the NS and institutions in Madagascar have good experience in responding to the bubonic plague there is limited knowledge in managing and responding to the pneumonic plague. This form of the disease is more infectious and more deadly than the bubonic form that the country is used to dealing with. Outbreaks of pneumonic plague are extremely rare, and require specific expertise to ensure effective response.

There is an urgent need to support MRCS in developing effective prevention and response strategies in coordination with partners to develop and implement key messages on the pneumonic plague, training of volunteers and staff in community sensitization as well as adjusting the CBS tool to contact tracing and early referral. Through the DREF operation IFRC will support the development of IEC materials with key messages on the plague.

The NS with support from IFRC and movement partners will develop a training plan to build the capacity of volunteers in pneumonic plague as well as developing key messaging and dissemination of information. All NS volunteers responding have been equipped with Personal Protective Equipment (PPE) and prophylactic antibiotics.

Limited knowledge of the pneumonic plague within the community will potential fuel rumours and fear, that will limit the capacity of the MRCS and local authorities to respond if community engagement is not managed effectively. Therefore, social mobilization and community engagement activities must be integrated into all prevention and response activities.

Prevention and response to both forms of the disease is imperative, and therefore a focus on case identification and treatment, early referral, reduction of vectors, risk communication and control of rumours/fear is key to controlling the diseases quickly.

The key roles for the National Society within the outbreak are:

- Contact Tracing and Community Based Surveillance
- Community mobilization and behavior change
- Sanitation and Hygiene support
- Vector and rodent control activities

### **Risk Assessment**

Given the limited understanding on how to manage and respond to the pneumonic plague there is potential that the outbreak may not be contained. Significant spread of the disease could lead to substantial impact both in terms of morbidity and mortality but could also result in the closing of schools, markets and economic activities, reduction in international transportation, tourism and long term economic impact. Limited knowledge and fear within the community could result in panic among the population, sparking fears both locally and regionally. There is also a risk that the social and cultural issues may affect the response preventing effective control.

The IFRC and MRCS are conscious of the risks of exposure to the volunteers who will be conducting vector control, community based surveillance and sensitisation activities. The volunteers who will be working in this response will be provided with sufficient personal protective equipment as well as the preventive antibiotics.

## **B. Operational strategy and plan**

### **Overall objective**

The overall objective of the operation is to contribute to the reduction in mortality and morbidity due to the plague in seven priority regions through effective prevention and response activities for both bubonic and pneumonic forms of transmission:

### **Proposed strategy**

The MRCS, WHO and Ministry of Public Health have identified four main areas of focus which MRCS will act as lead agency in the implementation and these are:

1. Contact Tracing and Community Based Surveillance
2. Community mobilization including CEA activities
3. Sanitation and Hygiene
4. Vector Control

The IFRC will work with NS in building the capacity of the staff and volunteers through trainings and technical support to ensure quality implementation. The community mobilization activities will focus on rumor management, social and behavior change.

The NS using the assessment data on the outbreak and identified high risk locations will prioritize the following 7 plague priority areas/regions to meet the emergency needs;

1. Analamanga,
2. Atsinanana
3. Boeny,
4. Vakinankaratra,
5. Haute Matsiatra,
6. Bongolava.
7. Itasy

It is important to note that while the 7 regions will be the main focus of the DREF operation the other affected regions will also be reached by community mobilization and sensitization by volunteers to prevent further transmission of the pneumonic and bubonic plagues. In addition, the 7 regions have been prioritized at this time based on current needs.

Based on active monitoring the situation, any additional activities required will be addressed through a revision plan of action in consultation with partners on the ground.

The NS will focus on capacity building activities for volunteers as well as equipping them with safe equipment to ensure they are able to carry out their activities.

MRCS staff and volunteers through focus group discussion, home visits and community meetings will collect information and data on perceptions, feelings, rumors fears, of the population related to the plague. The feedback will be used to better develop key messages to be used in social mobilization. The data will contribute to the development of a strategy to ensure quality and accountable capacity building of volunteers and raising awareness in communities on the plague.

The IFRC will work with the MENTOR Initiative to support the roll-out of the Vector control activities. This will include a training in vector control in the context of the plague epidemic.

## **Operational support services**

### **Human resources**

The following Human Resources will support the implementation of the DREF operation:

- MRCS Director of Programmes
- MRCS Health Coordinator
- IFRC Operations Manager
- 700 Volunteers of MRCS (100 volunteers per region targeted through the DREF)

In addition to the in-country staff the IFRC will also deploy the following surge support profiles:

- Epidemiology support for contact tracing / CBS
- Health Promotion / Community engagement
- Health Coordinator (infectious disease)
- RDRT for Emergency Health

### **Logistics and supply chain**

The IFRC's Regional Logistics Unit is supporting the planning of the operation and will in coordination with the National Society facilitate procurement and delivery of protective equipment, vector control kits and other materials required for the response. The IFRC is coordinating and consulting with WHO and other agencies in determining the specifications and recommended suppliers of the materials.

Logistics activities aim to effectively manage the supply chain, including procurement, customs clearance, fleet, storage and transport to distribution sites in accordance with the operation's requirements and aligned to IFRC's logistics standards, processes and procedures.

**Procurement plans:** Local procurement of any items will be carried out with support from the IFRC in country team , any international procurement for medical items such as masks or protective gear for volunteers will be sourced by Geneva in line with IFRC procedures, it is highly likely these items will be transported by air in to the country and hence the NS will need to prepare for custom clearance and onward movement to the area of need.

**Transport and fleet needs:** Any transportation needs will need to be identified locally unless the timeframe of the operation is increased and VRPs are requested via Dubai Global Fleet office. Therefore costs for rental of a vehicle and distribution have been included in the budget.

**Warehousing:** The NS has a warehouse at the national headquarters where any incoming consignment can be stored before dispatch to the areas of operation

IFRC Africa Regional Logistics Procurement and Supply Chain Unit will provide necessary guidance and technical support for any local procurement files and or international sourcing needs if required.

### **Information technologies (IT)**

Airtime and internet costs have been budgeted in the DREF operation to enable communication and easy coordination between the MRCS and the affected districts.

### **Communications**

MRCS will work in collaboration with the IFRC EAIOI cluster and RO to ensure communication of the DREF operation. Communications material, press releases and photographs have been shared on IFRC websites and social media

platforms. In addition, communication materials and visits will be conducted in consultation with MRCS to the affected areas.

### **Security**

There are no security concerns in the areas affected in the DREF. There is a high health risk for staff and volunteers, which has been addressed with the distribution of adequate PPE and antibiotics.

### **Planning, monitoring, evaluation, & reporting (PMER)**

MRCS staff will deploy its field staff and HQ staff to the affected area for different missions to ensure the effective implementation, monitoring of the activities planned. Assessments shared at coordination meetings have informed the activities planned within this DREF operation. The MRCS PMER Department will provide necessary technical support, and ensure that monitoring and reporting structures are established, as well as relevant surveys (beneficiaries' satisfaction) alongside the CCST PMER team.

### **Administration and Finance**

A Memorandum of Understanding between the IFRC EAIOI country cluster and the MRCS will be signed, articulating the roles and responsibilities in the implementation of the DREF operation. This MoU will ensure that the agreed DREF procedures are complied with, specifically in terms of its use, and reporting.







**Budget**

<b>Budget Group</b>		<b>DREF grant budget</b>
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	17,100
540	Medical & First Aid	58,850
550	Teaching Materials	0
560	Utensils & Tools	0
570	Other Supplies & Services	0
571	Emergency Response Units	0
578	Cash Disbursements	0
<b>Total RELIEF ITEMS, CONSTRUCTION AND SUPPLIES</b>		<b>75,950</b>
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 Machinery & Equipment	0
<b>Total LAND, VEHICLES AND EQUIPMENT</b>		<b>0</b>
590	Storage, Warehousing	0
592	Distribution & Monitoring	2,940
593	Transport & Vehicle Costs	12,400
594	Logistics Services	0
<b>Total LOGISTICS, TRANSPORT AND STORAGE</b>		<b>15,340</b>
600	International Staff	0
640	Regionally Deployed Staff	43,150
661	National Staff	0
662	National Society Staff	0
667	Volunteers	131,150
<b>Total PERSONNEL</b>		<b>174,300</b>
670	Consultants	15,000
750	Professional Fees	0
<b>Total CONSULTANTS &amp; PROFESSIONAL FEES</b>		<b>15,000</b>
680	Workshops & Training	38,356
<b>Total WORKSHOP &amp; TRAINING</b>		<b>38,356</b>
700	Travel	0
710	Information & Public Relations	19,600
730	Office Costs	1,400
740	Communications	840
760	Financial Charges	0
790	Other General Expenses	0
790	Shared Support Services	0
<b>Total GENERAL EXPENDITURES</b>		<b>21,840</b>
599	Programme and Supplementary Services Recovery	22,151
<b>Total INDIRECT COSTS</b>		<b>22,151</b>
<b>TOTAL BUDGET</b>		<b>362,937</b>

## Contact information

For further information specifically related to this operation please contact:

### In the National Society

- **Malagasy Red Cross:** Ando Ratsimamanga, Secretary General of Malagasy Red Cross; phone: +261 341422103; email: [sg@crmada.org](mailto:sg@crmada.org)

### In the IFRC

- **IFRC Operational Manager for Madagascar:** Massimo Lucania, Ops Manager, Antananarivo phone +261 320322116, email: [Massimo.LUCANIA@ifrc.org](mailto:Massimo.LUCANIA@ifrc.org)
- **IFRC Regional Office for Africa:** Florent DelPinto, Acting Head of Disaster Crisis Prevention, Response and Recovery Department, Nairobi, Kenya; phone +254 731067489; email: [florent.delpinto@ifrc.org](mailto:florent.delpinto@ifrc.org)
- **IFRC Country Cluster Support Team office:** Andreas Sandin, Operations Coordinator, Nairobi, phone: +254 732508060, email: [andreas.sandin@ifrc.org](mailto:andreas.sandin@ifrc.org)

### In IFRC Geneva

- **In Geneva:** Ezster Matyeka, Senior Officer DREF, email: [eszster.matyeka@ifrc.org](mailto:eszster.matyeka@ifrc.org)

### For IFRC Resource Mobilization and Pledges support:

**In IFRC Africa Region:** Kentaro Nagazumi, Coordinator Partnerships and Resource Development; Nairobi; phone: +254 731984117; email: [kentaro.nagazumi@ifrc.org](mailto:kentaro.nagazumi@ifrc.org)

### For In-Kind donations and Mobilization table support:

- **Regional Logistics Unit (RLU):** Rishi Ramrakha, Head of Africa Region Logistics Unit; phone: +254 733888022 / Fax +254 202712777; email: [rishi.ramrakha@ifrc.org](mailto:rishi.ramrakha@ifrc.org)

### For Performance and Accountability support (planning, monitoring, evaluation and reporting enquiries)

- **Fiona Gatere**, PMER Coordinator, phone: +254 20 283 5185; email: [fiona.gatere@ifrc.org](mailto:fiona.gatere@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 (NGO's) in Disaster Relief and the **Humanitarian Charter and Minimum Standards in Humanitarian 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:



**Save lives,**  
protect livelihoods,  
and strengthen recovery  
from disaster and crises.



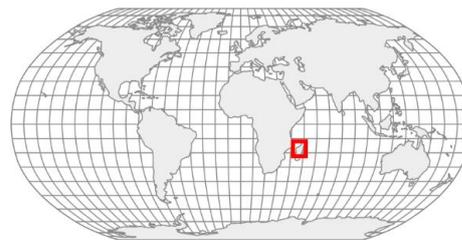
Enable **healthy**  
and **safe** living.



Promote **social inclusion**  
and a culture of  
**non-violence** and **peace**.

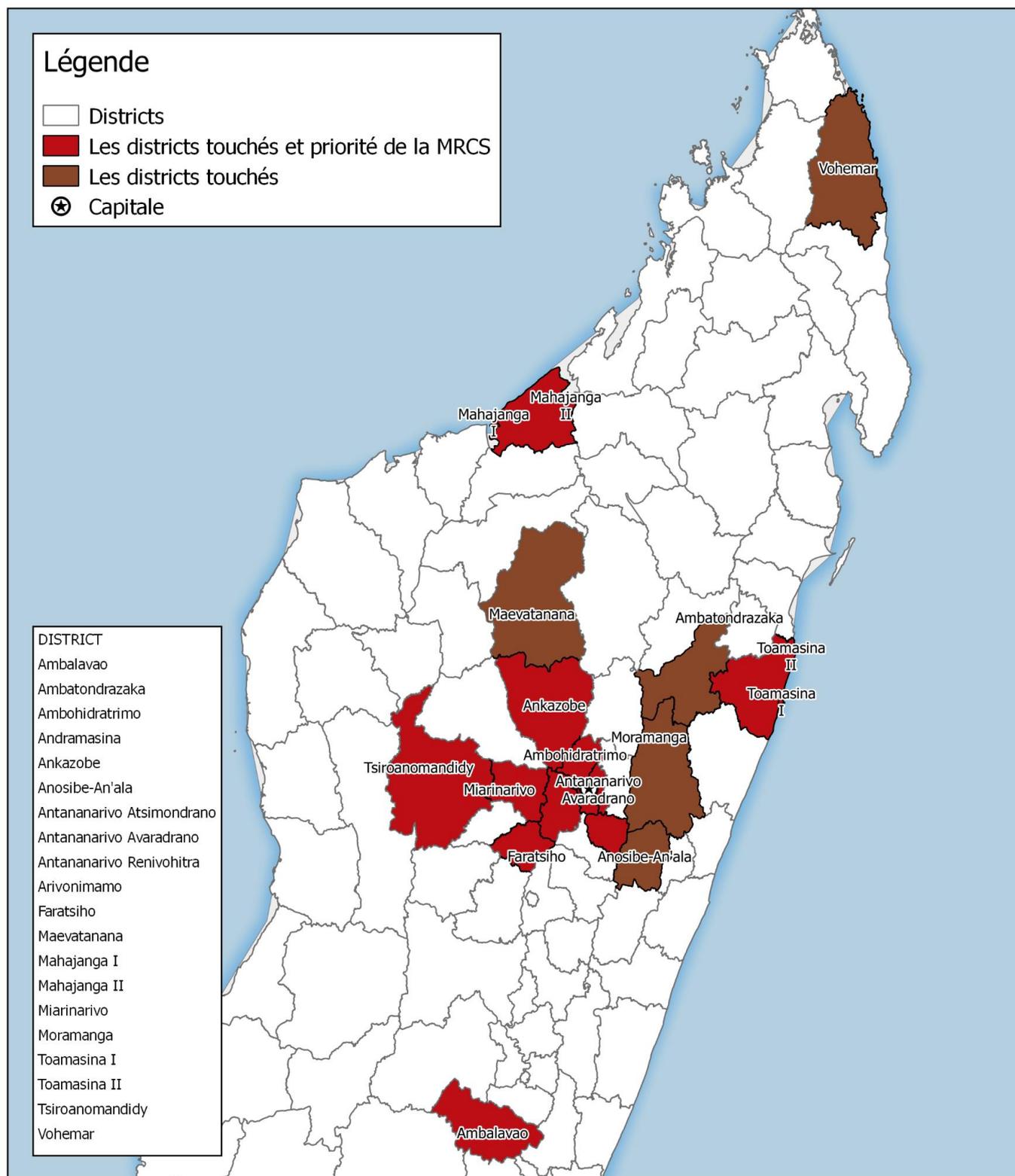


International Federation of Red Cross and Red Crescent Societies  
 Fédération internationale des Sociétés de la Croix-Rouge et du Croissant-Rouge  
 Federación Internacional de Sociedades de la Cruz Roja y de la Media Luna Roja  
 الاتحاد الدولي لجمعيات الصليب الأحمر والهلال الأحمر



## Madagascar: Peste

04 Octobre 2017 | EP-2017-000144-MDG



Les cartes ci-utilisées ne sont en aucune façon l'expression des positions de la Fédération Internationale des Sociétés de la Croix-Rouge et du Croissant-Rouge ou des Sociétés Nationales quant au statut juridique d'un territoire ou de ses autorités.  
 Sources: IFRC, Croix-Rouge Malagasy, ECHO, WHO (03 Octobre 2017)

0 80 160 240 320 km

