



# TÉLÉCOMS SANS FRONTIÈRES

Annual Report 2019

*communications for life*

## »»» Table of contents

Message from the President	1
TSF actions	3
TSF around the world	5
 Disaster Response	 6
Cyclones Idai and Kenneth	7
Hurricane Dorian	8
Typhoon Kammuri	9
Syrian Crisis	10
Balkan Migration Crisis	11
 Protection & Assistance	 12
Guatemala's Dry Corridor	13
Venezuelan Migration Crisis	14
Central American Migration Movement	15
 Education	 16
mLearning for Syrian Children	17
 Bridging the Digital Divide	 18
IT Cup Centres	19
 Capacity Building	 20
 The work of our engineers	 22
 TSF Partners	 24

# Message from the President

Over the past few years, the humanitarian response landscape has been changing significantly. Several types of crises arose in different parts of the world, often complex emergencies, threatening the life and safety of millions of people.

Different, interconnected causes, never-ending wars, economic crises, prolonged political instability and increasingly powerful natural disasters forced vulnerable populations to live in harsh and hardly bearable conditions.

Since its foundation, TSF's core activity has been the humanitarian emergency response to support the victims of any type of crisis where the lack of communication possibilities represents a significant problem. Always attentive to our beneficiaries' needs, we have adapted our response, our activities and our technical solutions accordingly.

While we've remained among the first international NGOs on the ground in the aftermath of the major natural catastrophes during the past few years, our actions evolved significantly to respond to beneficiaries' needs beyond sudden-onset disasters. Vulnerable people forced to leave their home countries in the pursuit of a brighter future, refugee children lost in foreign countries without the possibility to continue their education, migrants stuck in inhuman conditions for months, waiting to risk their lives in the hope to start a new life far from bombardments and poverty. Although in different contexts, they all need assistance, protection and psychological support to which our field expertise commits us to find an adequate response.

True to our core values, in 2019 we responded to the devastating natural catastrophes that hit the Bahamas, Mozambique and The Philippines, but we also continued our work in support of the victims of complex humanitarian crises, adapting our solutions to each specific context. It is thanks to these activities that Venezuelan refugees in Brazil, migrants crossing Mexico in the pursuit of a new life, migrants and refugees trying their luck on the Balkan route, civilians stranded in the region of Idlib in Syria, where Syrian refugee children fleeing endless war have found psychological relief in the voices of their loved ones, the opportunity to know and protect their rights, to receive as good medical care as possible, or that of have access to inclusive education and regain self-confidence.

Since beneficiaries remain at the core of our actions, in 2020 we will continue to monitor and respond to humanitarian crises where our expertise can provide support, protection and relief to the most vulnerable. We will work to make our technical solutions more and more adapted to each context and specific needs of the beneficiaries.

Jean-François Cazenave,  
President of Télécoms Sans Frontières





# TSF ACTIONS

## HUMANITARIAN EMERGENCY



### DISASTER RESPONSE

*"They started crying when they heard my voice. They were worried about me. Now I feel better, I sleep better, I can eat better. Thank you TSF, you made me so happy."*

Pierreson, beneficiary  
Hurricane Dorian,  
The Bahamas







## CAPACITY BUILDING

*"This connection is essential for us, especially during the first days of the mission. We need to receive information, share data and communicate with the field team. It is also important for our coordination and security."*

Cristina, beneficiary of UNDAC training, Indonesia



## PROTECTION & ASSISTANCE

*"Often people arrive in tremendous influx and it is impossible for us to give each of them the information they need. Screens are therefore an essential element of communication. They facilitate our daily operations."*

Daniela, Head of the CAFEMIN centre, Mexico



## EDUCATION

*"To help them want to go to school again, learn and make progresses, in a welcoming environment where they can increase their self-esteem. The classroom becomes a place of life, of exchanges, questioning, researches, points of reference and safety."*

Eric, educational specialist and TSF volunteer on the mLearning project in Syria and Turkey



## BRIDGING THE DIGITAL DIVIDE

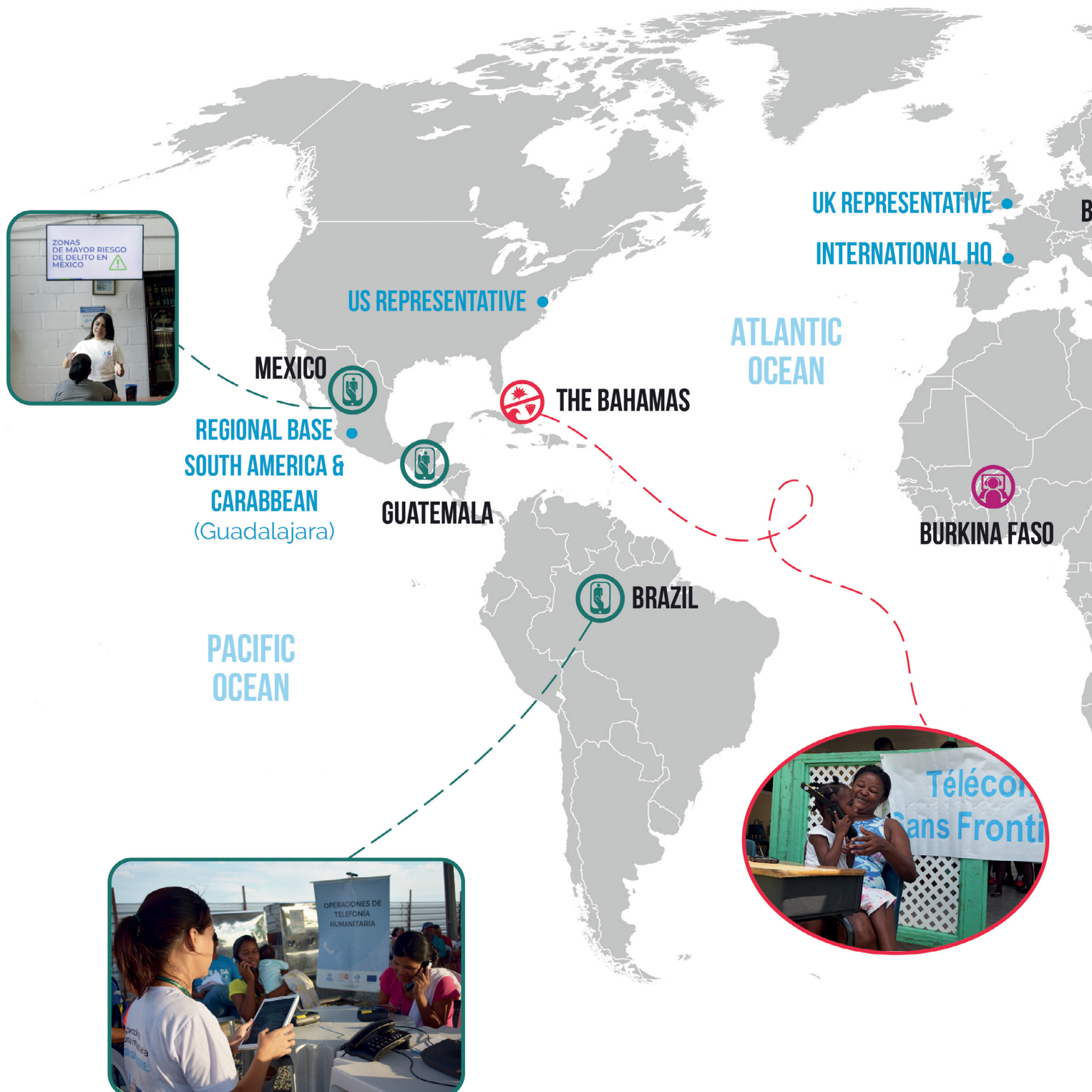
*"For those who don't have the means to afford technologies and related courses, the Centre is the only possibility to learn digital skills."*

Irinah, IT Cup Centre Coordinator in Miarinarivo, Madagascar



# TSF AROUND THE WORLD

in 2019

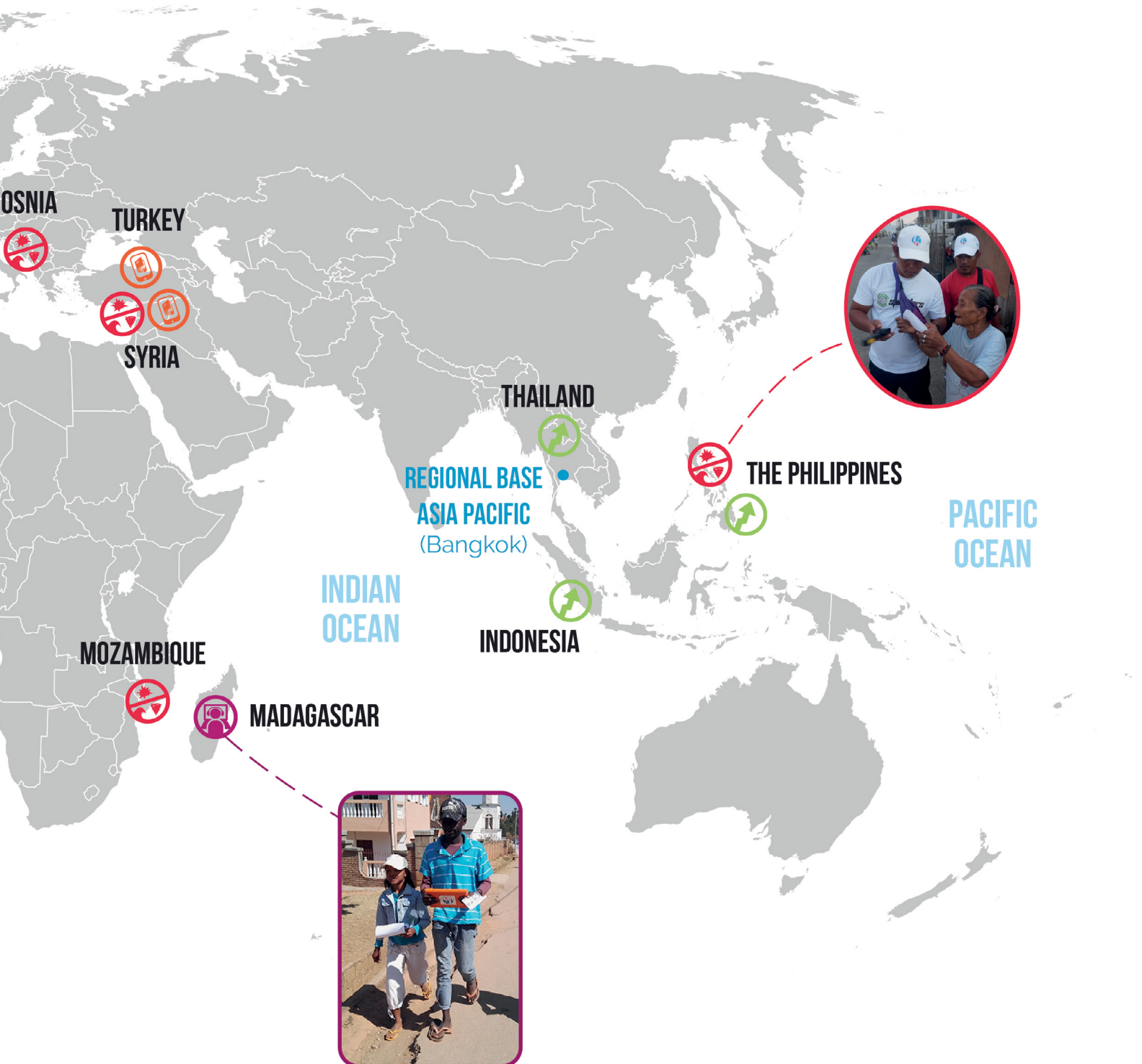




*Four continents*

*13 countries*

**Over 630 000 beneficiaries**





# DISASTER RESPONSE

Natural disasters have affected several countries and regions this year, and in particular three affected telecommunications. TSF thus deployed to Mozambique in March, the Bahamas in September and the Philippines in December, in order to restore telecommunications and come to the aid of local populations and humanitarian actors. We also maintained our presence in Syria and the Balkans.





# Cyclones Idai and Kenneth

On the night between 14th and 15th March 2019, Cyclone Idai hit Mozambique's coastal region. It made landfall in the area of Beira, the fourth largest city in the country, causing more than 1,000 deaths, over 1,523 injured and nearly 146,000 displaced. For over a month many areas remained without electricity and fully operational mobile networks. The UN estimated that a total of 1.85 million people were in need of humanitarian support.

On 25 April, another powerful cyclone, Kenneth, battered again the Mozambican coastal region around the city of Pemba, 1,000km north of Beira. While the impact was less devastating than Idai, strong winds of up to 200 km/h and torrential rains caused severe damages in different areas around Pemba. 35,000 houses were partially or totally destroyed and 14 health facilities impacted. 38 deaths were confirmed and over 20,000 have been displaced.



## General information

Context: Cyclone

Start date: 15/03/2019

End date: 15/05/2019

Areas of intervention:

- Sofala
- Manica
- Cabo Delgado

Activities:

- Support to Humanitarian Coordination
- Humanitarian Calling Operations

TSF was one of the first humanitarian organisations to land in Beira on Sunday 17 March. After installing the very first connection in the coordination centre set up at the airport, its teams connected the food distribution centre in Matarara, the Doctors Without Borders' offices in Mafambisse and the cholera treatment centre in Buzi. In parallel, TSF teams conducted Humanitarian Calling Operations (HCO) in schools reconverted as temporary shelters in and around the city of Beira. Equipped with satphones, they offered free calls to the affected population and the possibility to charge their phones for a few minutes.

In Pemba, our team arrived just 24h after the impact of Cyclone Kenneth on April 25. They installed two satellite connections, one at the airport to support the Instituto Nacional de Gestao de Calamidades' (INGC) relief operations, and one at the UNOCHA coordination centre. A third temporary connection has been set up in Macomia, to support a meeting of the President of Mozambique with the humanitarian coordination teams active on the ground.



## CYCLONES IDAI AND KENNETH

### SUPPORT TO HUMANITARIAN COORDINATION



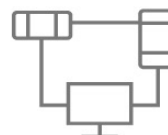
6  
Coordination  
Centres  
Connected  
in 3 provinces

1320+  
Devices  
Connected



90+  
Humanitarian  
Organisations  
Supported

800+GB  
Data Exchanged



### HUMANITARIAN CALLING OPERATIONS



2549  
Beneficiaries  
26 HCO  
Humanitarian  
Calling Operations



89%  
First Calls  
since the disaster



# Hurricane Dorian

During the night of Sunday 1st to Monday 2nd of September, Hurricane Dorian, category 5 with winds of up to 296 km/h and a 7m storm surge made landfall on the Abaco Islands, in The Bahamas. The situation was disastrous: badly damaged roofing, power lines cut off and roads impassable. The news regarding the communications status reports that on the Abaco Island, which seems to be most affected, GSM and Landlines are completely down.

Our teams arrived in Nassau, the capital, on 4 September and, in collaboration the National Emergency Management Agency (NEMA) and Pacific Disaster Centre (PDC), they reached the affected areas the following day to support the coordination and to meet the needs of the affected population. TSF has been one of the first international organisations to reach Abaco Island and to be operational.

Thanks to TSF's deployment, two humanitarian coordination centres have been connected. This allowed humanitarians from more than 25 organisations to increase the impact of their operations thanks to a broadband internet connection. TSF also conducted 5 humanitarian calling operations, offering free calls to the affected population.

## General information

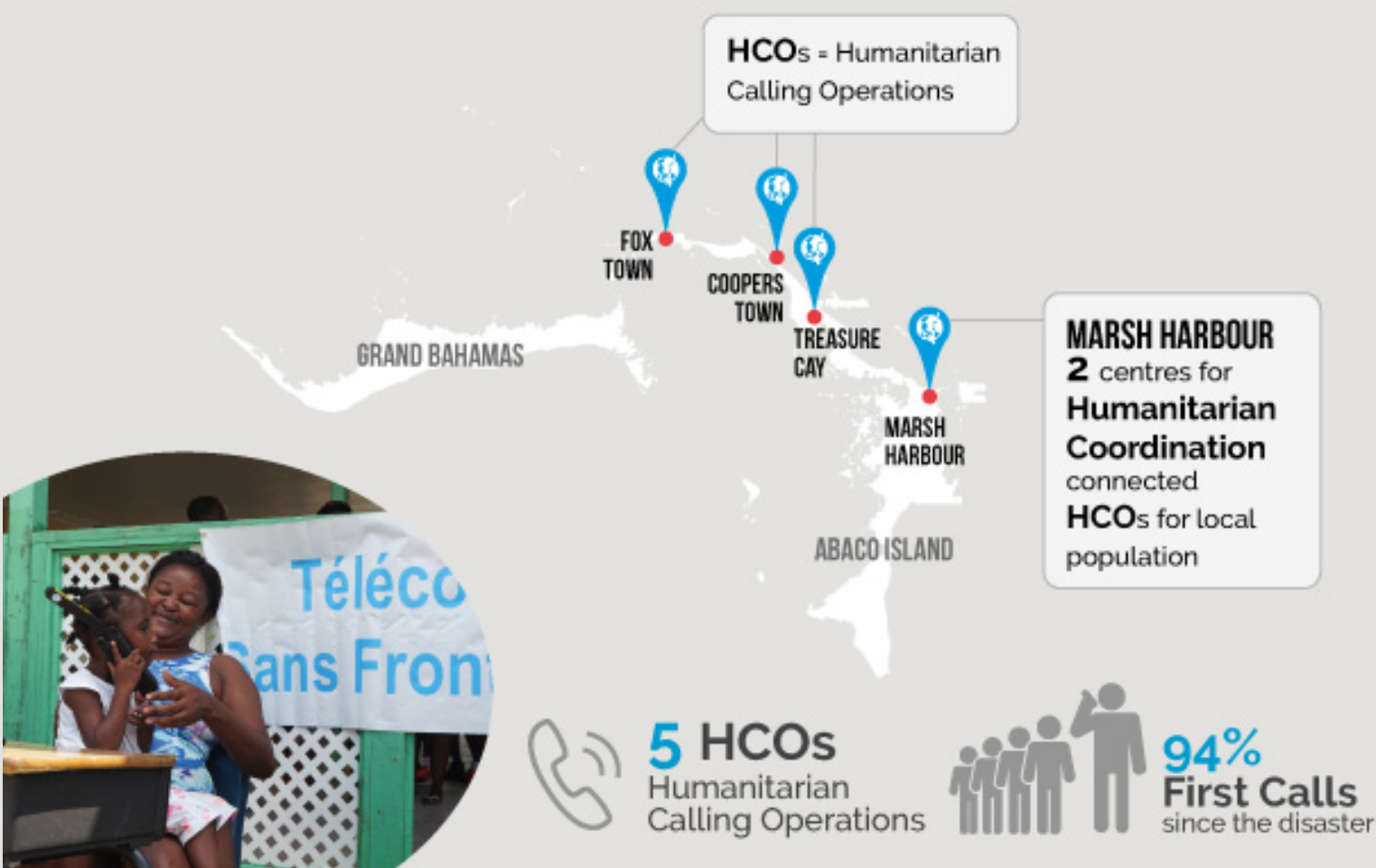
Context : Hurricane  
Start date: 03/09/2019  
End date: 24/09/2019

Areas of intervention:

- Abaco

Activities:

- Support to Humanitarian Coordination
- Humanitarian Calling Operations





# Typhoon Kammuri



Tropical cyclone Kammuri (Tisoy in the Philippines) reached its maximum intensity in category 4 in the Bicol region on December 3rd. Flights and operations at Manila International Airport were suspended for twelve hours between December 3rd and 4th, and more than 520 flights were cancelled.

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The Department of Information and Communications Technology of the Philippines (DICT) requested TSF to support their local emergency response mechanism by establishing a connection to the governor's office in one of the most affected areas: Catanduanes Island. New needs were then assessed in Northern Samar to support local government as well as populations in more remote areas of the island. Three humanitarian telephone operations have been set up to offer these populations the possibility of contacting their loved ones.

## General information

Context: Typhoon  
Start date: 01/12/2019  
End date: 16/12/2019

### Areas of intervention:

- Catanduanes Island (Bicol region, Luzon)
- Batag Island
- Northern Samar

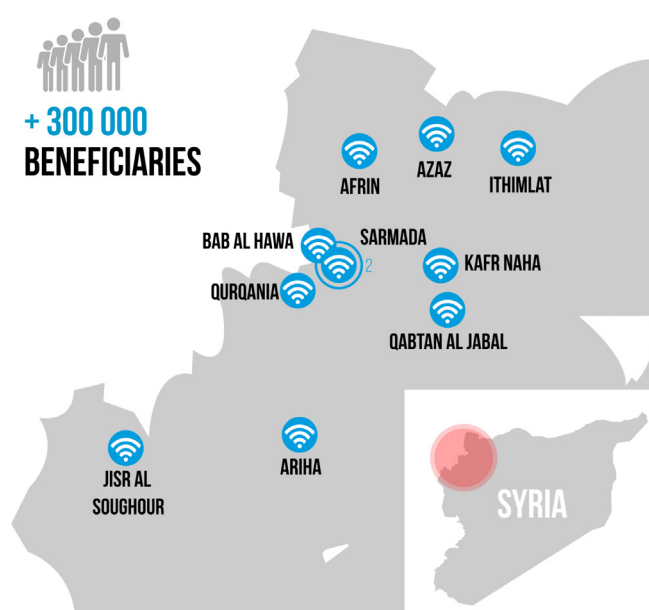
### Activities:

- Support to Humanitarian Coordination
- Humanitarian Calling Operations



Over eight years of war in Syria have claimed more than **370,000 lives** and created **5.6 million refugees**.

## Syrian Crisis



### General information

Context: Conflict  
Start date: 19/03/2012  
End date: ongoing

Areas of intervention:

- Northern Syria

Activities:

- Connectivity for humanitarian actors

In Syria the social and political situation remains unstable after 8 years of war, which caused 370,000 deaths and 5.6 million refugees. The population still has severe difficulties in accessing medical assistance; this is why it was important for TSF to continue its activities in the country in 2019.

In collaboration with the Union of Syrian Medical Care and Relief Organisations (UOSSM), TSF provided internet access to 11 medical centres in the Nord-East of the country and 5 satellite phones to their mobile medical teams. These allowed them to communicate with the hospitals, in particular in the Idlib region, which remained one of the most affected areas.



At least **7,500 refugees and migrants** are believed to be in Bosnia-Herzegovina.

# Balkan Migration Crisis

The migration crisis in the Balkans continues since 2015, and in 2019 the situation hasn't improved, affecting in particular Bosnia-Herzegovina, where more than 20,000 migrants arrived throughout the year.

TSF has been on the ground since the end of 2018 in collaboration with the International Organisation for Migration (IOM) and continued its operations in 2019. Its technical teams have adapted their solutions to the constraints faced on the ground, including a heterogeneous population with different types of smartphones, a metal hangar with metal containers and a considerable area to be covered with a connection that must support hundreds of devices connected simultaneously. This project ensures that people who have often had to suddenly leave their home countries and who have been travelling for months, even for years, can keep a family link.

## General information

**Context:** Migration crisis

**Start date:** 01/11/2018

**End date:** ongoing

### Areas of intervention:

- Bihać
- Velika Kladusa

### Activities:

- Connectivity for population
- Support to humanitarian coordination



**2000 BENEFICIARIES / DAY**  
**IN THE CENTRES**



**15 445+ DEVICES**  
**CONNECTED**



**~19.67 TB OF DATA**  
**EXCHANGED / MONTH**



**15+ ORGANISATIONS**  
**SUPPORTED**



**22 ACCESS POINTS TO COVER**  
**22,000 M<sup>2</sup>**



Velika Kladuša

Bihać

BOSNIA-HERZEGOVINA

Sarajevo



Testing the internet connection in Bihać - 2018



# PROTECTION & ASSISTANCE

The problems that can befall populations are numerous. Besides natural disasters and migratory crises, famines, epidemics, poverty, corruption, insecurity, gender-based violence are also issues present around the world. This can create different emergency situations that TSF tries to cope with by alleviating the suffering of the victims of these situations. We are working to improve the quality and effectiveness of humanitarian assistance to families, and our teams are committed to developing innovative solutions to meet the needs identified in the field.



# Guatemala's Dry Corridor

This year again, TSF joined a Consortium of NGOs present in Guatemala, led by Acción Contra la Hambre (ACH), to fight the consequences of cyclical droughts in the country. In fact, the Dry Corridor of Guatemala causes an increase in extreme poverty and chronic malnutrition.

TSF thus provided the Consortium with a technological solution, based on open source systems, for data collection, management and monitoring of program information. This project ended in December 2019 and has supported more than 8,000 people suffering from food insecurity for the past year, and more than 46,000 people since the start of the project in 2015.

In order to ensure the sustainability of the project for ACH, a solution transfer was proposed by TSF.

## General information

Context: Food crisis  
Start date: 28/05/2015  
End date: 31/12/2019

Areas of intervention:

- Chiquimula
- Baja Verapaz
- Quiché
- Sololá
- Quezaltenango
- Huehuetenango
- Zacapa

Activities:

- Digitisation of collection tools
- Analysis and visualisation of data



## FOOD INSECURITY IN THE DRY CORRIDOR OF GUATEMALA



**CONSORTIUM COMPOSED  
BY 18 NGOS**



**OPEN SOURCE  
TECHNOLOGICAL  
SOLUTION BY TSF**



**+46 000 BENEFICIARIES**



# Venezuelan Migration Crisis

## General information

Context: Migration crisis

Start date: 03/04/2018

End date: 31/12/2019

Areas of intervention:

- Boa Vista
- Pacaraima
- Manaus

Activities:

- Humanitarian Calling Operations

**Brazil is also affected by a migration crisis coming from Venezuela. Indeed, due to the very delicate economic situation in the country, people are fleeing in search of better living conditions.**

Since calls to Venezuela are very expensive and many migrants and refugees do not even have a telephone, TSF continued its on-site operations which had started in 2018. Thanks to the ToIP (Telephony over Internet Protocol) solution specifically developed and adapted by TSF for this humanitarian crisis, thousands of desperate people have succeeded in contacting their loved ones, looking for a job or performing the administrative tasks necessary to regularise their situation.

TSF firmly believes that the empowerment of communities and local organisations is essential for a lasting and effective response to a particular crisis. To this end, when the partnership with the United Nations Refugee Agency ended, TSF delegated its local partner AVSI in September 2019 to coordinate certain parts of the project. This new collaboration focused on a more operational involvement of AVSI while TSF continued to provide overall project management and technical support for its ToIP solution.



# Central American Migratory Movement

The migration crisis in Central America remains a news topic. The road is dangerous and migrants face many problems along the way.



In order to provide assistance, TSF set up a remote information system in 2017, allowing migrants to access key information for them, such as their rights as refugees, or how and where to carry out administrative procedures. In view of the positive results of the pilot project, TSF has installed its digital information display system in three new centres: CAFEMIN (Mexico), Albergue Belén (Tapachula), and Desayunador Salesiano Padre Chava (Tijuana).

In addition, the content of the presentations was also adapted better to each centre's needs. A general section with global information has been supplemented by a regional section, which includes advice on risks linked to this region as well as the latest news. Finally, an even more local section provides information on the specifics of where each centre is located.

## General information

Context: Migration crisis  
Start date: 15/10/2017  
End date: Ongoing

### Areas of intervention:

- Guadalajara
- Guadalupe
- Nogales
- Arriaga
- Palenque
- Mexico City
- Tapachula
- Tijuana

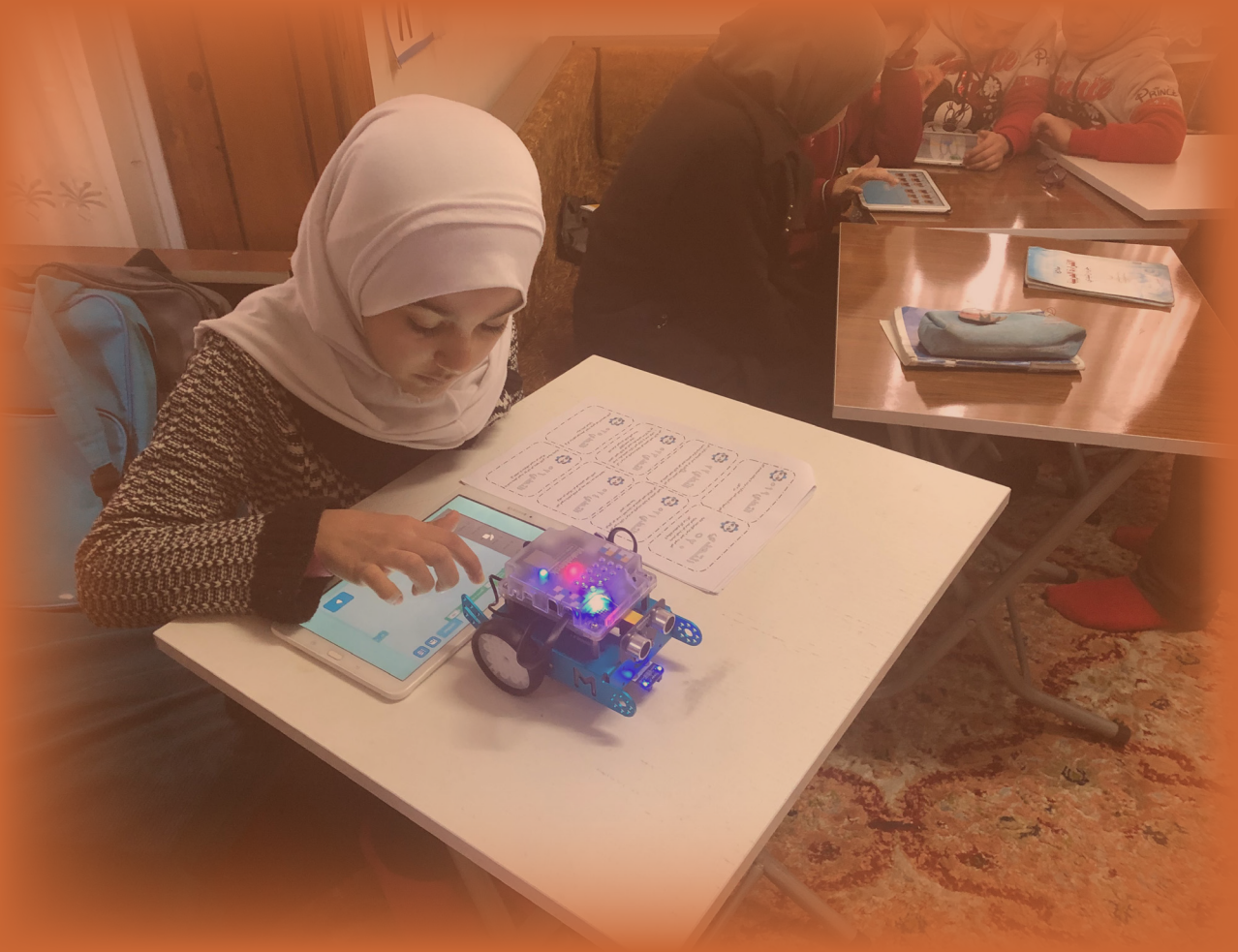
### Activities:

- Information diffusion



# EDUCATION

The right to education is a fundamental right which must be guaranteed. Through technological solutions, TSF is dedicated to working with local educational structures in countries affected by humanitarian crises, in order to assist them in providing quality schooling. Technology and access to the Internet allow children to get their hands on the necessary educational resources to open them up to the rest of the world.





# mLearning for Syrian Children

**Syrian children affected by war have difficulty accessing education, whether they have been displaced inside Syria or are refugees in neighbouring countries.**

Since 2013, TSF has been supporting educational centres in order to offer a safe and welcoming environment so that these children gradually rediscover the willingness to discover, and to return to school as much as possible.

This year, TSF was again present in Syria in partnership with World Vision, in two childcare centres located on the border with Turkey, Alsalama and Alnour. The goal was to offer digital activities that allow interactive lessons in Arabic, Math and English.

In Turkey, TSF also continued its digital learning project in two school centres, in partnership with Minher Alsham, a Syrian NGO. Thanks to the skills belt system, children can see their individual development and acquire new skills despite their different levels and their unstable situation. To better adapt to this situation, TSF worked throughout the year on a new solution that will allow for the evolution and improvement of mLearning activities during 2020.

## General Information

**Context:** Conflict

**Start date:** 10/05/2013

**End date:** Ongoing

**Intervention areas:**

- Azaz district, Syria
- City of Gaziantep, Turkey

**Activities:**

- mLearning

  
**621 CHILDREN**

● GAZIANTEP

● AL SALAMA

● AZAZ

SYRIA





# BRIDGING THE DIGITAL DIVIDE

For most of us, living without new technologies is unimaginable. Yet in some countries or regions, this is a reality. Even those who have access to it do not necessarily have the capacity to maximise its potential.

At TSF, we implement various activities that provide access to ICT and trainings so that even the most isolated communities can benefit from the advantages of the digital economy.





# IT Cup Centres Madagascar and Burkina Faso

**TSF is present in Burkina Faso, in Guiè, with an IT Cup centre in support of the Zoramb Naagtaaba (AZN) association, which brings together 11 very isolated villages in the country.**

This gives locals, but especially children, access to digital tools and connectivity, which continues to be a need today given the growing instability in the country. Thus, children of all ages have free computer training, for beginners or for those who already have some knowledge, allowing them to have tools that will be useful to them as adults.



**This year TSF has again invested in Miarinarivo, Madagascar, both through the IT Cup Centre and in partnership with the Alabri association.**

Thanks to digital connection and learning, children and adolescents can have access to tools which will not only be useful to them throughout their lives, but which will also allow them to create social links. Other than the cybercafé accessible to all, trainings are offered as well as extracurricular activities such as after-school support or a technical club.



A mapathon is a mapping event that helps fill the mapping gaps in a city or region.

This year we also introduced a new activity in partnership with Open Street Map, an open source website that provides cartographic data, built by a community of volunteer cartographers. Thus, mapping activities have been implemented, in particular data collection (around Lake Itasy). A **mapathon** was also organised, in partnership with the Itasy region and the Soavinandriana Itasy Higher Education Institute.





# CAPACITY BUILDING

In an emergency, information management and sharing are key to an effective humanitarian response that can provide appropriate assistance to affected populations as quickly as possible.

Our technology and telecommunications experts conduct training sessions around the world for the benefit of international NGOs, government agencies and the United Nations. These sessions address the use of new technologies in crisis situations. They are also an opportunity to highlight the latest technical solutions used in responding to emergencies.



## United Nations Disaster Assessment and Coordination (UNDAC) Global Induction Course

TSF provided satellite connection and technical support during a training organised by the Emergency Response Support Service (ERSB) of the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) in collaboration with the Indonesian government. 30 humanitarian professionals from more than 15 countries participated. The presence of TSF has enabled them to better understand the needs they will face once on the ground and the support they can receive from each humanitarian organisation they find on the field.



### Training Asian Institute of Technologies (AIT)

At the end of August, TSF technicians trained a dozen students from the Asian Institute of Technologies (AIT), in order to diversify its team of volunteers ready to go on mission in the event of a humanitarian crisis. Participants learned about TSF's missions, its equipment and the deployment of an emergency mission, including how to conduct humanitarian calling operations and how to set up telecommunications centres for humanitarian workers.

## The 12th ASEAN-Emergency Response & Assessment Team (ASEAN-ERAT) Induction Course

The Association of Southeast Asian Nations (ASEAN) has requested TSF's support for the simulation exercise of the 12th ASEAN-ERAT induction course. The objective of this course was to prepare regional responders, with experience in emergency management and coordination, to enable them to respond to a major disaster in the ASEAN region at the request of the concerned ASEAN Member State. TSF's contribution was essential in strengthening their emergency preparedness and response capacity.

### Manila, Philippines: UKSA IPP Program April 2017 – April 2019

This year marks the end of a three-year project funded by the United Kingdom's Space Agency (UKSA), in partnership with Inmarsat, for the Philippine disaster risk reduction and management system. This project aimed to build a local operational telecom capacity dedicated and adapted to disaster response. As part of this cooperation, Télécoms Sans Frontières provided all the technical expertise necessary to carry out the project and provided training for government personnel in the Philippines who now operate 6 kits in total autonomy.





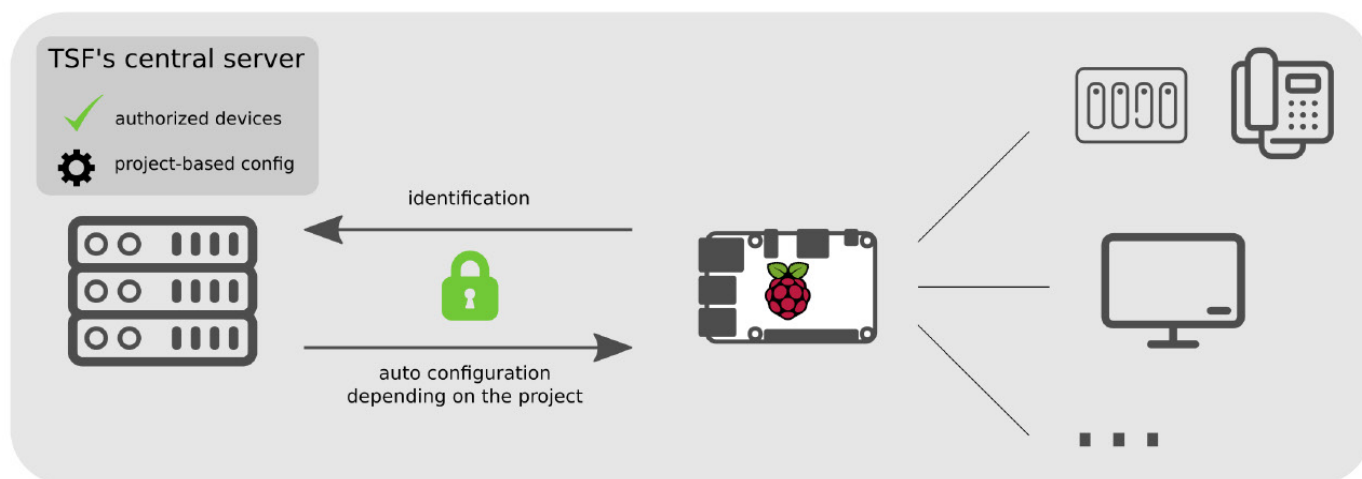
# THE WORK OF OUR ENGINEERS

**The use of new technologies in humanitarian emergency continues to prove efficient to restore contact, reduce intervention delay, better target the needs and enable a more coordinated response.**

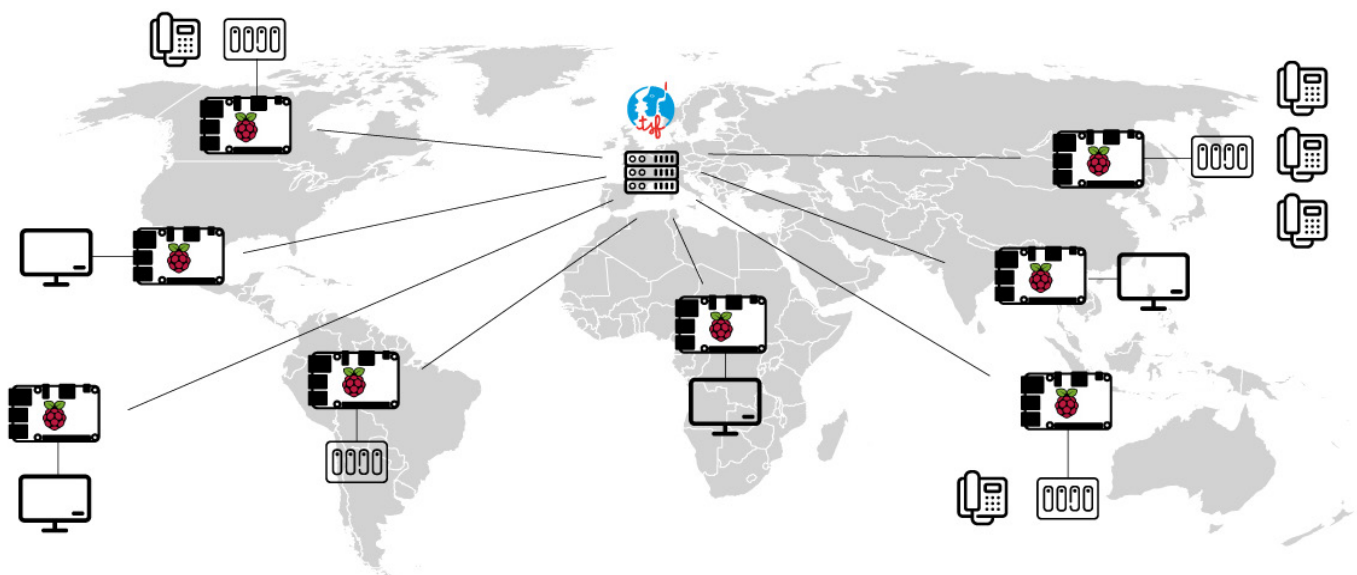
A deep knowledge in technologies combined with field experience constitutes the unique expertise of TSF. We identify the appropriate tools to meet the needs of the people affected by crisis, and that correspond to the usages of the emergency workers. We take account of technical, logistical and financial constraints to adapt these tools to the various emergency contexts.



## SARBACANE







As technologies are constantly evolving, our engineers have worked all year to improve those we have already implemented. In addition, they work throughout the year to create innovative solutions adapted to our deployments and projects. A number of them will be deployed in 2020, but one of the solutions was already implemented in 2019. Called Sarbacane, the idea of this project is to perform a remote and centralized installation and configuration of the systems deployed on the field. The development has started during 2019 and will continue in 2020. So far, it has been used for the information system in Mexico and VoIP (Telephone over Internet Protocol) in Brazil, but the goal is to improve and expand it, so it can be easily used for new projects that will be deployed in the future.

### Advantages:

- less technical knowledge is needed from the personnel on the field
- automatic configuration if the system is rebooted or re-installed
- easier and common configuration for systems within the same context. In this way, common changes will be easily applied to all the systems very quickly
- guarantees security of confidential data

# TSF PARTNERS

We couldn't have carried out all the missions presented in this report without the **support of all our partners**. We are particularly proud to have new and longstanding partners that do not only support us financially to carry out our operations, but that fully **share our vision and mission**. Partners who are always willing to go the extra mile to enhance TSF's impact to the **benefit of the most vulnerable people** affected by all type of humanitarian crisis.

It is thanks to such strong relationships and solid collaborations that we could **bring hope and relief to the victims of the major humanitarian crises** this year, **giving them a voice** and helping them **regain control over their lives**. Working together, for a world in which technologies and telecommunications bring **protection, relief, hope** and a solid base for a **brighter future** where human-made or natural disasters removed all hopes.

## Financial Partners



## Operational Partners









# TÉLÉCOMS SANS FRONTIÈRES

Communications for life

**Télécoms Sans Frontières (TSF) was founded 20 years ago as the world's first NGO focusing on emergency-response technologies.**

We empower populations and responders in humanitarian crises by delivering reliable connectivity when and where it is needed most. We give affected people the possibility to contact their loved ones and begin to regain control of their lives, and we build rapid-response communications centres for local and international responders.

Since its creation in 1998, TSF has responded to over 140 crises in more than 70 countries, providing communication means to over 20 million people and nearly 1,000 NGOs.

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