**2010 Haiti earthquake**

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| **Date** | 16:53:10, 12 January 2010 |
| **Magnitude** | 7.0 [Mw](http://en.wikipedia.org/wiki/Moment_magnitude_scale) |
| **Depth** | 13 km (8.1 miles) |
| **Epicenter location** | [18.457°N 72.533°W](http://toolserver.org/~geohack/geohack.php?pagename=2010_Haiti_earthquake&params=18.457_N_72.533_W_) |
| **Casualties** | 92,000 - 230,000 deaths ([6th deadliest earthquake](http://en.wikipedia.org/wiki/List_of_natural_disasters_by_death_toll#Earthquakes)) |

**Background**

Haiti is the poorest country in the Western Hemisphere, and is ranked 149th of 182 countries on the [Human Development Index](http://en.wikipedia.org/wiki/Human_Development_Index).The Australian government's travel advisory site had previously expressed concerns that Haitian emergency services would be unable to cope in the event of a major disaster, and the country is considered "economically vulnerable" by the [Food and Agriculture Organization](http://en.wikipedia.org/wiki/Food_and_Agriculture_Organization). It is no stranger to natural disasters; in addition to earthquakes, it has been struck frequently by tropical cyclones, which have caused flooding and widespread damage. The most recent cyclones to hit the island before the earthquake were [Tropical Storm Fay](http://en.wikipedia.org/wiki/Tropical_Storm_Fay_(2008)) and Hurricanes [Gustav](http://en.wikipedia.org/wiki/Hurricane_Gustav), [Hanna](http://en.wikipedia.org/wiki/Hurricane_Hanna_(2008)) and [Ike](http://en.wikipedia.org/wiki/Hurricane_Ike), all in the summer of 2008, causing nearly 800 deaths.

**Geology**

The [magnitude](http://en.wikipedia.org/wiki/Moment_magnitude_scale) 7.0 Mw earthquake occurred inland, on 12 January 2010 at 16:53 [UTC-5](http://en.wikipedia.org/wiki/UTC-5), approximately 25 kilometres (16 mi) WSW from Port-au-Prince at a depth of 13 kilometres (8.1 mi) on [blind thrust faults](http://en.wikipedia.org/wiki/Thrust_fault#Blind_thrust_faults) associated with the [Enriquillo-Plantain Garden fault system](http://en.wikipedia.org/wiki/Enriquillo-Plantain_Garden_fault_zone). There is no evidence of surface rupture and based on seismological, geological and ground deformation data it is thought that the earthquake did not involve significant lateral slip on the main Enriquillo fault. Strong shaking associated with intensity IX on the [Modified Mercalli scale](http://en.wikipedia.org/wiki/Mercalli_intensity_scale) (MM) was recorded in Port-au-Prince and its suburbs. According to estimates from the USGS, approximately 3.5 million people lived in the area that experienced shaking intensity of MM VII to X, a range that can cause moderate to very heavy damage even to earthquake-resistant structures.

The quake occurred in the vicinity of the northern boundary where the [Caribbean](http://en.wikipedia.org/wiki/Caribbean_plate) [tectonic plate](http://en.wikipedia.org/wiki/Tectonic_plate) shifts eastwards by about 20 millimetres (0.79 in) per year in relation to the [North American plate](http://en.wikipedia.org/wiki/North_American_plate).

A 2007 earthquake hazard study by C. DeMets and M. Wiggins-Grandison noted that the Enriquillo-Plantain Garden fault zone could be at the end of its seismic cycle and concluded that a worst-case forecast would involve a 7.2 Mw earthquake, Paul Mann and a group including the 2006 study team presented a hazard assessment of the Enriquillo-Plantain Garden fault system to the 18th Caribbean Geologic Conference in March 2008, noting the large strain; the team recommended "high priority" historical geologic rupture studies, as the fault was fully locked and had recorded few earthquakes in the preceding 40 years. An article published in Haiti's [*Le Matin*](http://en.wikipedia.org/wiki/Le_Matin_(Haiti)) newspaper in September 2008 cited comments by geologist Patrick Charles to the effect that there was a high risk of major seismic activity in Port-au-Prince.

**Aftershocks**

History of the main shock and aftershocks with magnitudes larger than 4.0, data from USGS[35]

The [United States Geological Survey](http://en.wikipedia.org/wiki/United_States_Geological_Survey) (USGS) recorded eight [aftershocks](http://en.wikipedia.org/wiki/Aftershock) in the two hours after the main earthquake, with magnitudes between 4.3 and 5.9.[35] Within the first nine hours 32 aftershocks of magnitude 4.2 or greater were recorded, 12 of which measured magnitude 5.0 or greater, and on January 24 USGS reported that there had been 52 aftershocks measuring 4.5 or greater since the January 12 quake.[35]

On 20 January at 06:03 local time (11:03 [UTC](http://en.wikipedia.org/wiki/UTC)) the strongest aftershock since the earthquake,[36] measuring magnitude 5.9 Mw, struck Haiti.[37] USGS reported its epicentre was about 56 kilometres (35 miles) WSW of Port-au-Prince,[35] which would place it almost exactly under the coastal town of [Petit-Goâve](http://en.wikipedia.org/wiki/Petit-Go%C3%A2ve). A UN representative reported that the aftershock collapsed seven buildings in the town. According to staff of the [International Committee of the Red Cross](http://en.wikipedia.org/wiki/International_Committee_of_the_Red_Cross), who had reached Petit-Goâve for the first time the day before the aftershock, the town was estimated to have lost 15% of its buildings, and was suffering the same shortages of supplies and medical care as the capital.Workers from the charity [Save the Children](http://en.wikipedia.org/wiki/Save_the_Children) reported hearing "already weakened structures collapsing" in Port-au-Prince, but most sources reported no further significant damage to infrastructure in the city. Further casualties are thought to have been minimal since people had been sleeping in the open. There are concerns that the 12 January earthquake could be the beginning of a new long-term sequence: "the whole region is fearful"; historical accounts, although not precise, suggest that there has been a sequence of quakes progressing westwards along the fault, starting with an earthquake in the Dominican Republic in 1751.

**Tsunami**

The [Pacific Tsunami Warning Center](http://en.wikipedia.org/wiki/Pacific_Tsunami_Warning_Center) issued a [tsunami](http://en.wikipedia.org/wiki/Tsunami) warning immediately after the initial quake, but quickly cancelled it. Nearly two weeks later it was reported that the beach of the small fishing town of Petit Paradis was hit by a localised tsunami wave shortly after the earthquake, probably as a result of an underwater slide, and this was later confirmed by researchers. At least three people were swept out to sea by the wave and were reported dead. Witnesses told reporters that the sea first retreated and a "very big wave" followed rapidly, crashing ashore and sweeping boats and debris into the ocean.

Damage to infrastructure

**Essential services**

Amongst the widespread devastation and damage throughout Port-au-Prince and elsewhere, vital [infrastructure](http://en.wikipedia.org/wiki/Infrastructure) necessary to respond to the disaster was severely damaged or destroyed. This included all hospitals in the capital; air, sea, and land transport facilities; and communication systems.

The quake affected the three [Médecins Sans Frontières](http://en.wikipedia.org/wiki/M%C3%A9decins_Sans_Fronti%C3%A8res) (Doctors Without Borders) medical facilities around Port-au-Prince, causing one to collapse completely. A hospital in [Pétionville](http://en.wikipedia.org/wiki/P%C3%A9tionville), a wealthy suburb of Port-au-Prince, also collapsed,[46] as did the St. Michel District Hospital in the southern town of [Jacmel](http://en.wikipedia.org/wiki/Jacmel), which was the largest referral hospital in south-east Haiti.

The quake seriously damaged the [control tower](http://en.wikipedia.org/wiki/Control_tower) at [Toussaint L'Ouverture International Airport](http://en.wikipedia.org/wiki/Toussaint_L%27Ouverture_International_Airport)[49] and the [Port-au-Prince seaport](http://en.wikipedia.org/wiki/Port_international_de_Port-au-Prince),[50] which rendered the harbour unusable for immediate rescue operations. The [Gonaïves](http://en.wikipedia.org/wiki/Gona%C3%AFves) seaport, in the northern part of Haiti, remained operational.

Roads were blocked with [road debris](http://en.wikipedia.org/wiki/Road_debris) or the surfaces broken. The main road linking Port-au-Prince with [Jacmel](http://en.wikipedia.org/wiki/Jacmel) remained blocked ten days after the earthquake, hampering delivery of aid to Jacmel. When asked why the road had not been opened, Hazem el-Zein, head of the south-east division of the UN [World Food Programme](http://en.wikipedia.org/wiki/World_Food_Programme) said that "We ask the same questions to the people in charge...They promise rapid response. To be honest, I don't know why it hasn't been done. I can only think that their priority must be somewhere else."

There was considerable damage to communications infrastructure. The [public telephone system](http://en.wikipedia.org/wiki/Public_switched_telephone_network) was not available,and two of Haiti's largest [cellular telephone](http://en.wikipedia.org/wiki/Cellular_telephone) providers, [Digicel](http://en.wikipedia.org/wiki/Digicel) and [Comcel Haiti](http://en.wikipedia.org/wiki/Comcel_Haiti), both reported that their services had been affected by the earthquake. [Fibre-optic connectivity](http://en.wikipedia.org/wiki/BDSNi) was also disrupted. According to [Reporters Sans Frontières](http://en.wikipedia.org/wiki/Reporters_Sans_Fronti%C3%A8res) (RSF), most of the radio stations went off the air and only 20 of the 50 stations in Port-au-Prince were back on air a week after the earthquake.

**General infrastructure**

In February 2010 Prime Minister [Jean-Max Bellerive](http://en.wikipedia.org/wiki/Jean-Max_Bellerive) estimated that 250,000 [residences](http://en.wikipedia.org/wiki/Residential_area) and 30,000 [commercial buildings](http://en.wikipedia.org/wiki/Commercial_building) were severely damaged and needed to be demolished. The deputy mayor of Léogâne reported that 90% of the town's buildings had been destroyed. Many government and public buildings were damaged or destroyed including the [Palace of Justice](http://en.wikipedia.org/w/index.php?title=Ministry_of_Justice_(Haiti)&action=edit&redlink=1), the [National Assembly](http://en.wikipedia.org/wiki/National_Assembly_of_Haiti), the [Supreme Court](http://en.wikipedia.org/wiki/Supreme_Court_of_Haiti) and [Port-au-Prince Cathedral](http://en.wikipedia.org/wiki/Port-au-Prince_Cathedral).The [National Palace](http://en.wikipedia.org/wiki/National_Palace_(Haiti)) was severely damaged,though [President](http://en.wikipedia.org/wiki/President_of_Haiti) [René Préval](http://en.wikipedia.org/wiki/Ren%C3%A9_Pr%C3%A9val) and his wife [Elisabeth Delatour Préval](http://en.wikipedia.org/wiki/Elisabeth_Delatour_Pr%C3%A9val) escaped injury.The Prison Civile de Port-au-Prince was also destroyed, allowing around 4,000 inmates to escape.

Most of Port-au-Prince's municipal buildings were destroyed or heavily damaged, including the City Hall, which was described by the [*Washington Post*](http://en.wikipedia.org/wiki/Washington_Post) as, "a skeletal hulk of [concrete](http://en.wikipedia.org/wiki/Concrete) and [stucco](http://en.wikipedia.org/wiki/Stucco), sagging grotesquely to the left."Port-au-Prince had no municipal petrol reserves and few city officials had working mobile phones before the earthquake, complicating communications and transportation.

Minister of Education [Joel Jean-Pierre](http://en.wikipedia.org/w/index.php?title=Joel_Jean-Pierre&action=edit&redlink=1) stated that the education system had "totally collapsed". About half the nation's schools and the three main universities in Port-au-Prince were affected. More than 1,300 schools and 50 health care facilities were destroyed.

The earthquake also destroyed a nursing school in the capital and severely damaged the country’s primary [midwifery](http://en.wikipedia.org/wiki/Midwifery) school. The [Haitian art world](http://en.wikipedia.org/wiki/Haitian_art) suffered great losses; artworks were destroyed, and museums and art galleries were extensively damaged, among them Port-au-Prince's main art museum, [Centre d'Art](http://en.wikipedia.org/w/index.php?title=Centre_d%27Art&action=edit&redlink=1), [College Saint Pierre](http://en.wikipedia.org/w/index.php?title=College_Saint_Pierre&action=edit&redlink=1) and [Holy Trinity Cathedral](http://en.wikipedia.org/wiki/Holy_Trinity_Cathedral,_Port-au-Prince).

The headquarters of the [United Nations Stabilization Mission in Haiti](http://en.wikipedia.org/wiki/United_Nations_Stabilization_Mission_in_Haiti) (MINUSTAH) at [Christopher Hotel](http://en.wikipedia.org/wiki/Christopher_Hotel) and offices of the [World Bank](http://en.wikipedia.org/wiki/World_Bank) were destroyed. The building housing the offices of [Citibank](http://en.wikipedia.org/wiki/Citibank) in Port-au-Prince collapsed, killing five employees. The clothing industry, which accounts for two-thirds of Haiti's exports, reported structural damage at manufacturing facilities.

The quake created a [landslide dam](http://en.wikipedia.org/wiki/Landslide_dam) on the [Rivière de Grand Goâve](http://en.wikipedia.org/wiki/Rivi%C3%A8re_de_Grand_Go%C3%A2ve). The water level was low as of mid-February. Authorities[*[who?](http://en.wikipedia.org/wiki/Wikipedia:Avoid_weasel_words)*] believe that the dam is likely to collapse during the rainy season which would flood [Grand-Goâve](http://en.wikipedia.org/wiki/Grand-Go%C3%A2ve), a 12 kilometres (7.5 mi) downstream.

**Conditions in the aftermath**

In the nights following the earthquake, many people in Haiti slept in the streets, on pavements, in their cars, or in makeshift [shanty towns](http://en.wikipedia.org/wiki/Shanty_town) either because their houses had been destroyed, or they feared standing structures would not withstand aftershocks. Construction standards are low in Haiti; the country has no [building codes](http://en.wikipedia.org/wiki/Building_codes). Engineers have stated that it is unlikely many buildings would have stood through any kind of disaster. Structures are often raised wherever they can fit; some buildings were built on slopes with insufficient foundations or steel works. A representative of [Catholic Relief Services](http://en.wikipedia.org/wiki/Catholic_Relief_Services) has estimated that about two million Haitians lived as [squatters](http://en.wikipedia.org/wiki/Squatter) on land they did not own. The country also suffered from shortages of fuel and potable water even before the disaster.

President Préval and government ministers used police headquarters near the [Toussaint L'Ouverture International Airport](http://en.wikipedia.org/wiki/Toussaint_L%27Ouverture_International_Airport) as their new base of operations, although their effectiveness was extremely limited; several parliamentarians were still trapped in the Presidential Palace, and offices and records had been destroyed. Some high-ranking government workers lost family members, or had to tend to wounded relatives. Although the president and his remaining cabinet met with UN planners each day, there remained confusion as to who was in charge and no single group had organised relief efforts as of 16 January. The government handed over control of the airport to the United States to hasten and ease flight operations, which had been hampered by the damage to the air traffic control tower.

Almost immediately Port-au-Prince's [morgue](http://en.wikipedia.org/wiki/Morgue) facilities were overwhelmed. By 14 January, a thousand bodies had been placed on the streets and pavements. Government crews manned trucks to collect thousands more, burying them in mass graves. In the heat and humidity, corpses buried in rubble began to decompose and smell. Mati Goldstein, head of the Israeli [ZAKA](http://en.wikipedia.org/wiki/ZAKA) International Rescue Unit delegation to Haiti, described the situation as "[Shabbat](http://en.wikipedia.org/wiki/Shabbat) from hell. Everywhere, the acrid smell of bodies hangs in the air. It’s just like the stories we are told of the [Holocaust](http://en.wikipedia.org/wiki/Holocaust) – thousands of bodies everywhere. You have to understand that the situation is true madness, and the more time passes, there are more and more bodies, in numbers that cannot be grasped. It is beyond comprehension."

Mayor Jean-Yves Jason said that officials argued for hours about what to do with the volume of corpses. The government buried many in mass graves, some above-ground tombs were forced open so bodies could be stacked inside, and others were burned. Mass graves were dug in a large field outside the settlement of [Titanyen](http://en.wikipedia.org/wiki/Titanyen), north of the capital; tens of thousands of bodies were reported as having been brought to the site by [dump truck](http://en.wikipedia.org/wiki/Dump_truck) and buried in trenches dug by [earth movers](http://en.wikipedia.org/wiki/Earth_mover). [Max Beauvoir](http://en.wikipedia.org/wiki/Max_Beauvoir), a [Vodou](http://en.wikipedia.org/wiki/Haitian_Vodou) priest, protested the lack of dignity in mass burials, stating, "... it is not in our culture to bury people in such a fashion, it is desecration".

Towns in the eastern Dominican Republic began preparing for tens of thousands of refugees, and by 16 January hospitals close to the border had been filled to capacity with Haitians. Some began reporting having expended stocks of critical medical supplies such as antibiotics by 17 January. The border was reinforced by Dominican soldiers, and the government of the Dominican Republic asserted that all Haitians who crossed the border for medical assistance would be allowed to stay only temporarily. A local governor stated, "We have a great desire and we will do everything humanly possible to help Haitian families. But we have our limitations with respect to food and medicine. We need the helping hand of other countries in the area."

Slow distribution of resources in the days after the earthquake resulted in sporadic violence, with [looting](http://en.wikipedia.org/wiki/Looting) reported. There were also accounts of looters wounded or killed by vigilantes and neighbourhoods that had constructed their own roadblock barricades.

In many neighbourhoods, singing could be heard through the night and groups of men coordinated to act as security as groups of women attempted to take care of food and hygiene necessities. During the days following the earthquake, hundreds were seen marching through the streets in peaceful processions, singing and clapping.

**Casualties**

The earthquake struck in the most populated area of the country. The [International Federation of Red Cross and Red Crescent Societies](http://en.wikipedia.org/wiki/IFRC) estimates that as many as 3 million people had been affected by the quake. On 10 February the Haitian government reported the death toll to have reached 230,000. However, an investigation by Radio Netherlands has questioned the official death toll, reporting an estimate of 92,000 deaths as being a more realistic figure.

**Early response**

Appeals for [humanitarian aid](http://en.wikipedia.org/wiki/Humanitarian_aid) were issued by many aid organisations, the United Nations and president René Préval. [Raymond Joseph](http://en.wikipedia.org/wiki/Raymond_Joseph), Haiti's [ambassador](http://en.wikipedia.org/wiki/Ambassador) to the United States, and his nephew, singer [Wyclef Jean](http://en.wikipedia.org/wiki/Wyclef_Jean), who was called upon by Préval to become a "roving ambassador" for Haiti, also pleaded for aid and donations.

Many countries responded to the appeals and launched fund-raising efforts, as well as sending search and rescue teams. The neighbouring [Dominican Republic](http://en.wikipedia.org/wiki/Dominican_Republic) was the first country to give aid to Haiti, sending water, food and heavy-lifting machinery. The hospitals in Dominican Republic were made available, and the airport opened to receive aid that would be distributed to Haiti. The Dominican emergency team assisted more than 2,000 injured people, while the Dominican Institute of Telecommunications (Indotel) helped with the restoration of some telephone services. The Dominican Red Cross coordinated early medical relief in conjunction with the International Red Cross. The government sent eight mobile medical units along with 36 doctors including orthopaedic specialists, traumatologists, anaesthetists, and surgeons. In addition, 39 trucks carrying canned food were dispatched, along with 10 mobile kitchens and 110 cooks capable of producing 100,000 meals per day.

Other nations from farther afield also sent personnel, medicines, [materiel](http://en.wikipedia.org/wiki/Materiel), and other aid to Haiti. The first team to arrive in Port-au-Prince was [ICE-SAR](http://en.wikipedia.org/wiki/ICE-SAR) from [Iceland](http://en.wikipedia.org/wiki/Iceland), landing within 24 hours of the earthquake. A 50-member [Chinese](http://en.wikipedia.org/wiki/People%27s_Republic_of_China) team arrived early Thursday morning. From the Middle East, the government of [Qatar](http://en.wikipedia.org/wiki/Qatar) sent a strategic transport aircraft (C-17), loaded with 50 tonnes of urgent relief materials and 26 members from the Qatari armed forces, the internal security force (Lekhwiya), police force and the Hamad Medical Corporation, to set up a field hospital and provide assistance in Port-au-Prince and other affected areas in Haiti.

The [American Red Cross](http://en.wikipedia.org/wiki/American_Red_Cross) announced on 13 January that it had run out of supplies in Haiti and appealed for public donations. [Giving Children Hope](http://en.wikipedia.org/wiki/Giving_Children_Hope) worked to get much-needed medicines and supplies on the ground. [Partners in Health](http://en.wikipedia.org/wiki/Partners_in_Health) (PIH), the largest health care provider in rural Haiti was able to provide some emergency care from its ten hospitals and clinics all of which were outside the capital and undamaged. MINUSTAH had over 9,000 uniformed peacekeepers deployed to the area. Most of these workers were initially involved in the search for survivors at the organisation's collapsed headquarters.

The [International Charter on Space and Major Disasters](http://en.wikipedia.org/wiki/International_Charter_on_Space_and_Major_Disasters) was activated, allowing satellite imagery of affected regions to be shared with rescue and aid organisations. Members of [social networking](http://en.wikipedia.org/wiki/Social_networking) sites such as [Twitter](http://en.wikipedia.org/wiki/Twitter) and [Facebook](http://en.wikipedia.org/wiki/Facebook) spread messages and pleas to send help. Facebook was overwhelmed by—and blocked—some users who were sending messages about updates. The American Red Cross set a record for mobile donations, raising US$7 million in 24 hours when they allowed people to send US$10 donations by text messages. The [OpenStreetMap](http://en.wikipedia.org/wiki/OpenStreetMap) community responded to the disaster by greatly improving the level of mapping available for the area using post-earthquake satellite photography provided by [GeoEye](http://en.wikipedia.org/wiki/GeoEye), and tracking website [Ushahidi](http://en.wikipedia.org/wiki/Ushahidi) coordinated messages from multiple sites to assist Haitians still trapped and to keep families of survivors informed.

Easing refugee immigration into Canada was discussed by Canadian Prime Minister [Stephen Harper](http://en.wikipedia.org/wiki/Stephen_Harper), and in the U.S. Haitians were granted [Temporary Protected Status](http://en.wikipedia.org/wiki/Temporary_protected_status), a measure that permits about 100,000 illegal alien Haitians in the United States to stay legally for 18 months, and halts the deportations of 30,000 more, though it does not apply to Haitians outside the U.S. Local and state agencies in [South Florida](http://en.wikipedia.org/wiki/South_Florida), together with the U.S. government, began implementing a plan ("Operation Vigilant Sentry") for a mass migration from the Caribbean that had been laid out in 2003.

Several orphanages were destroyed in the earthquake. After the process for the adoption of 400 children by families in the U.S. and the Netherlands was expedited, [Unicef](http://en.wikipedia.org/wiki/Unicef) and [SOS Children](http://en.wikipedia.org/wiki/SOS_Children) urged an immediate halt to adoptions from Haiti. Jasmine Whitbread, chief executive of [Save the Children](http://en.wikipedia.org/wiki/Save_the_Children) said: "The vast majority of the children currently on their own still have family members alive who will be desperate to be reunited with them and will be able to care for them with the right support. Taking children out of the country would permanently separate thousands of children from their families—a separation that would compound the acute trauma they are already suffering and inflict long-term damage on their chances of recovery." However, several organisations were planning an airlift of thousands of orphaned children to South Florida on humanitarian visas, modelled on a similar effort with Cuban refugees in the 1960s named "[Pedro Pan](http://en.wikipedia.org/wiki/Operation_Peter_Pan)".

**Rescue and relief efforts**

Helicopters transfer injured earthquake victims to hospital ship [USNS *Comfort*](http://en.wikipedia.org/wiki/USNS_Comfort) off the coast of Haiti

Rescue efforts began in the immediate aftermath of the earthquake, with able-bodied survivors extricating the living and the dead from the rubble of the many buildings which had collapsed. Treatment of the injured was hampered by the lack of hospital and morgue facilities: the [Argentine military field hospital](http://en.wikipedia.org/wiki/Argentine_Air_Force_Mobile_Field_Hospital), which had been serving MINUSTAH, was the only one available until 13 January. Rescue work intensified only slightly with the arrival of doctors, police officers, military personnel and firefighters from various countries two days after the earthquake. From 12 January, the [International Committee of the Red Cross](http://en.wikipedia.org/wiki/International_Committee_of_the_Red_Cross), which has been working in Haiti since 1994, has been focusing on bringing emergency assistance to victims of the catastrophe, in close cooperation with its partners within the International Red Cross and Red Crescent Movement, particularly the Haitian Red Cross and the International Federation of Red Cross and Red Crescent Societies.

[Médecins Sans Frontières](http://en.wikipedia.org/wiki/M%C3%A9decins_Sans_Fronti%C3%A8res) (Doctors Without Borders; MSF) reported that the hospitals that had not been destroyed were overwhelmed by large numbers of seriously injured people, and that they had to carry out many amputations. Running short of medical supplies, some teams had to work with any available resources, constructing splints out of cardboard and reusing latex gloves. Other rescue units had to withdraw as night fell amid security fears. Over 3,000 people had been treated by Médecins Sans Frontières as of 18 January. Ophelia Dahl, director of [Partners in Health](http://en.wikipedia.org/wiki/Partners_in_Health), reported, "there are hundreds of thousands of injured people. I have heard the estimate that as many as 20,000 people will die each day that would have been saved by surgery."

An MSF aircraft carrying a field hospital was repeatedly turned away by U.S. air traffic controllers who had assumed control at Toussaint L'Ouverture International Airport. Four other MSF aircraft were also turned away.In a 19 January press release MSF said, "It is like working in a war situation. We don’t have any more morphine to manage pain for our patients. We cannot accept that planes carrying lifesaving medical supplies and equipment continue to be turned away while our patients die. Priority must be given to medical supplies entering the country."First responders voiced frustration with the number of relief trucks sitting unused at the airport. Aid workers blamed U.S.-controlled airport operations for prioritising the transportation of security troops over rescuers and supplies; evacuation policies favouring citizens of certain nations were also criticised.

The U.S. military acknowledged the non-governmental organisations' complaints concerning flight-operations bias and promised improvement while noting that up to 17 January 600 emergency flights had landed and 50 were diverted; by the first weekend of disaster operations diversions had been reduced to three on Saturday and two on Sunday. The airport was able to support 100 landings a day, up from the 35 a day that the airport gets during normal operation. A spokesman for the joint task force running the airport confirmed that though more flights were requesting landing slots, none were being turned away.

Brazilian Foreign Minister [Celso Amorim](http://en.wikipedia.org/wiki/Celso_Amorim) and French Minister of State for Cooperation [Alain Joyandet](http://en.wikipedia.org/wiki/Alain_Joyandet) criticised the perceived preferential treatment for U.S. aid arriving at the airport, though a spokesman for the French Ministry of Foreign Affairs said that there had been no official protest from the French government with regard to the management of the airport. U.S. officials acknowledged that coordination of the relief effort is central to Haitian recovery, and President Préval asked for calm coordination between assisting nations without mutual accusations.

While the Port-au-Prince airport ramp has spaces for over a dozen airliners, in the days following the quake it sometimes served nearly 40 at once, creating serious delays. The supply backup at the airport was expected to ease as the apron management improved, and when the perceived need for heavy security diminished. Airport congestion was reduced further on 18 January when the United Nations and U.S. forces formally agreed to prioritise humanitarian flights over security reinforcement.

By 14 January, over 20 countries had sent military personnel to the country, with Canada, the United States and the Dominican Republic providing the largest contingents. The [supercarrier](http://en.wikipedia.org/wiki/Supercarrier) [USS *Carl Vinson*](http://en.wikipedia.org/wiki/USS_Carl_Vinson_(CVN-70)) arrived at [maximum possible speed](http://en.wikipedia.org/wiki/Flank_speed) on 15 January with 600,000 emergency food rations, 100,000 ten-litre water containers, and an enhanced wing of 19 helicopters; 130,000 litres of [drinking water](http://en.wikipedia.org/wiki/Drinking_water) were transferred to shore on the first day.

International rescue efforts were restricted by traffic congestion and blocked roads. Although U.S. Secretary of Defense Robert Gates had previously ruled out dropping food and water by air as too dangerous, by 16 January, U.S. helicopters were distributing aid to areas impossible to reach by land.

In Jacmel, a city of 50,000, the mayor claimed that 70% of the homes had been damaged and that the quake had killed 300 to 500 people and left some 4,000 injured. The small airstrip suffered damage which rendered it unusable for supply flights until 20 January.

Over the first weekend 130,000 food packets and 70,000 water containers were distributed to Haitians, as safe landing areas and distribution centres such as golf courses were secured. There were nearly 2,000 rescuers present from 43 different groups, with 161 [search dogs](http://en.wikipedia.org/wiki/Search_and_rescue_dog); the airport had handled 250 tons of relief supplies by the end of the weekend. Reports from Sunday showed a record-breaking number of successful rescues, with at least 12 survivors pulled from Port-au-Prince's rubble, bringing the total number of rescues to 110.

On 22 January the UN and United States formalised the coordination of relief efforts by signing an agreement giving the U.S. responsibility for the ports, airports and roads, and making the UN and Haitian authorities responsible for law and order. The UN stated that it had resisted formalising the organisation of the relief effort to allow as much leeway as possible for those wishing to assist in the relief effort, but with the new agreement "we’re leaving that emergency phase behind". The UN also urged organisations to coordinate aid efforts through its mission in Haiti to allow for better scheduling of the arrival of supplies. On 23 January the Haitian government officially called off the search for survivors, and most search and rescue teams began to prepare to leave the country. However, as late as 8 February 2010, survivors were still being discovered, as in the case of Evan Muncie, 28, found in the rubble of a grocery store.

On 10 April, due to the potential threat of mudslides and flooding from the upcoming [rainy season](http://en.wikipedia.org/wiki/Wet_season), the Haitian government began operations to move thousands of refugees to a more secure location north of the capital.

**Recovery**

U.S. President [Barack Obama](http://en.wikipedia.org/wiki/Barack_Obama) announced that former presidents [Bill Clinton](http://en.wikipedia.org/wiki/Bill_Clinton), who also acts as the UN special envoy to Haiti, and [George W. Bush](http://en.wikipedia.org/wiki/George_W._Bush) would coordinate efforts to raise funds for Haiti's recovery. Secretary of State [Hillary Clinton](http://en.wikipedia.org/wiki/Hillary_Clinton) visited Haiti on 16 January to survey the damage and stated that US$48 million had been raised already in the U.S. to help Haiti recover. Following the meeting with Secretary Clinton, President Préval stated that the highest priorities in Haiti's recovery were establishing a working government, clearing roads, and ensuring the streets were cleared of bodies to improve sanitary conditions.

Trade and Industry Minister [Josseline Colimon Fethiere](http://en.wikipedia.org/w/index.php?title=Josseline_Colimon_Fethiere&action=edit&redlink=1) estimated that the earthquake's toll on the Haitian economy would be massive, with one in five jobs lost. In response to the earthquake, foreign governments offered badly needed financial aid. The European Union promised €330 million (US$474 million) for emergency and long-term aid. Brazil announced R$375 million (US$210 million) for long-term recovery aid, US$15 million of which in immediate funds. The United Kingdom's Secretary of State for International Development [Douglas Alexander](http://en.wikipedia.org/wiki/Douglas_Alexander) called the result of the earthquake an "almost unprecedented level of devastation", and committed the UK to ₤20 million (US$32.7 million) in aid, while France promised €10 million (US$14.4 million). Italy announced it would waive repayment of the €40 million (US$55.7 million) it had loaned to Haiti, and the World Bank waived the country's debt repayments for five years. On 14 January, the U.S. government announced it would give US$100 million to the aid effort and pledged that the people of Haiti "will not be forgotten".

The government of Canada announced that it would match the donations of Canadians up to a total of CAD$50 million.[208] After a United Nations call for help for the people affected by the earthquake, Canada pledged an additional CAD$60 million (US$58 million) in aid, bringing Canada's total contribution to CAD$135 million (US$131.5 million).

President [Abdoulaye Wade](http://en.wikipedia.org/wiki/Abdoulaye_Wade) of [Senegal](http://en.wikipedia.org/wiki/Senegal) offered interested Haitians free land in Senegal; depending on how many respond to the offer, this could include up to an entire region.

Prime Minister Bellerive announced that from 20 January, people would be helped to relocate outside the zone of devastation, to areas where they may be able to rely on relatives or better fend for themselves; people who have been made homeless would be relocated to the makeshift camps created by residents within the city, where a more focused delivery of aid and sanitation could be achieved. Port-au-Prince, according to an international studies professor at the [University of Miami](http://en.wikipedia.org/wiki/University_of_Miami), was ill-equipped before the disaster to sustain the number of people who had migrated there from the countryside over the past ten years to find work. After the earthquake, thousands of Port-au-Prince residents began returning to the rural towns from which they had come.

On 25 January a one-day conference was held in [Montreal](http://en.wikipedia.org/wiki/Montreal) to assess the relief effort and discuss further plans. Prime Minister Bellerive told delegates from 20 countries that Haiti would need "massive support" for its recovery from the international community. A donors' conference was expected to be held at the UN headquarters in [New York](http://en.wikipedia.org/wiki/New_York) in March, however, took more than three months to hold the UN conference. The 26-member international Interim Haiti Reconstruction Commission, headed by Bill Clinton and Haitian Prime Minister Jean-Max Bellerive, didn't convene until last June. That committee is set to oversee the $5.3 billion pledged internationally for the first two years of Haiti's reconstruction — money separate from the total spent on humanitarian aid. Ten percent of it has been delivered, mostly as forgiven debt. The rest is mired in politics and bureaucracy of more than 60 countries and organizations that pledged to help.

**Status of the recovery**

As of July 2010, as much as 98% of the rubble from the quake remained uncleared. An estimated 26 million cubic yards (20 million cubic meters) remained making most of the capital impassable, and thousands of bodies remained in the rubble. The number of people in relief camps of tents and tarps since the quake was 1.6 million, and almost no transitional housing had been built. Most of the camps had no electricity, running water, or sewage disposal, and the tents were beginning to fall apart. Crime in the camps was widespread, especially against women and girls. Between 23 major charities, $1.1 billion had been collected for Haiti for relief efforts, but only two percent of the money had been released. According to a [CBS](http://en.wikipedia.org/wiki/CBS) report, $3.1 billion had been pledged for humanitarian aid and was used to pay for field hospitals, plastic tarps, bandages, and food, plus salaries, transportation and upkeep of relief workers. By May 2010, enough aid had been raised internationally to give each displaced family a check for $37,000.

In July 2010, [CNN](http://en.wikipedia.org/wiki/CNN) returned to Port-au-Prince and reported, "It looks like the quake just happened yesterday", and Imogen Wall, spokeswoman for the United Nations office of humanitarian affairs in Haiti, said that six months from that time it may still look the same. The Haitian government said it was unable to tackle debris clean-up or the resettlement of homeless because it must prepare for hurricane season. Haitian Prime Minister Jean-Max Bellerive stated, "The real priority of the government is to protect the population from the next hurricane season, and most of our effort right now is going right now in that direction."

Speaking of the difficulties of living in one of the many camps, one refugee told a reporter, "They told us when we were coming here, that we would live well. But what we saw when we got here and the way we lived here, it’s the contrary. The place where we are here when it’s hot, the sun makes the tents hot, very hot. And also the wind comes and blows the tents and wrecks them". When asked what needs to happen now, he replied, "...In the situation we’re living here in the tents, we can’t continue like that anymore. We would ask them as soon as possible to give us the real houses that they said they were going to give us so that our situation could improve. Because the tents are torn, when it rains, rain comes in. We have very exemplary or a very indicative block, Block 6. It’s a zone which is completely unpassable when it rains".

Land ownership is a particular problem for rebuilding, because so many pre-quake homes were not officially registered. "Even before the national registry fell under the rubble, land tenure has always been a complex and contentious issue in Haiti. Many areas of Port-au-Prince were settled either by [tonton makout](http://en.wikipedia.org/wiki/Tonton_Macoute) - Duvalier's death squads - given land for their service or by squatters. In many cases land ownership was never officially registered. Even if this logistical logjam were cleared, the vast majority of Port-au-Prince residents, up to 85%, did not own their homes before the earthquake."

As of September 2010, there were over one million refugees living in tents and the humanitarian situation has been characterized as still being in the emergency phase according to the [Apostolic Nuncio](http://en.wikipedia.org/wiki/Apostolic_Nuncio) to Haiti, [Archbishop](http://en.wikipedia.org/wiki/Archbishop) [Bernard Auza](http://en.wikipedia.org/w/index.php?title=Bernard_Auza&action=edit&redlink=1). He went on to say that instead of diminishing, the number is on the rise. Also, he reported that the state has decided to first rebuild downtown Port-au-Prince and a new government center, however reconstruction itself has not yet begun.

[Refugees International](http://en.wikipedia.org/wiki/Refugees_International) criticised the aid agencies for being "dysfunctional" and "inexperienced." They also said "The people of Haiti are still living in a state of emergency, with a humanitarian response that appears paralysed. Gang leaders or land owners are intimidating the displaced. Sexual, domestic, and gang violence in and around the camps is rising. Action is urgently needed to protect the basic human rights of people displaced by the earthquake."They claim that rape of Haitian women and girls who have been living in camps since the January earthquake is increasing, in part, because the [United Nations](http://en.wikipedia.org/wiki/United_Nations) isn’t doing enough to protect them.