



# **FURTHER INFORMATION FOR TEACHERS:**

## **POVERTY AND GEOGRAPHY**

### *Poverty*

#### **Inequality, few jobs and low incomes**

Haiti is not a wealthy country. In 2012, its GNI, or wealth created in one year, was \$12.6 billion dollars. This makes Haiti the 168<sup>th</sup> poorest country in the world, comparable to Rwanda\*. This relatively low level of wealth is not shared equally among Haiti's people: 20% of the population own 70% of Haiti's wealth, making Haiti a country of significant inequality. The majority of Haiti's people are poor: 75% of the population have incomes of less than \$2 per day and over 60% live in extreme poverty, defined as earning less than \$1.25 per day\*.

One reason for Haiti's high level of poverty is the high level of unemployment: only 5% of Haiti's population has a regular job paying a weekly salary. Therefore most people have to try and make a living in whatever way they can. 40% of the population are small scale farmers who grow food to feed their families and to sell at the market. Others hope to make a living in occupations like selling goods in the market, or providing services like tailoring, hairdressing or motor repairs.

Low incomes and a lack of jobs mean that people in Haiti have to survive in the best way they can, but many are very resilient and optimistic.

(\*Source: World Bank 2012)

#### **Deforestation**

The natural vegetation of Haiti used to include large areas of forest. Deforestation means the cutting down of trees in large numbers. Too much deforestation risks damaging the soil, making it unsuitable for farming.

Deforestation in Haiti began in the seventeenth century when the land was cleared for large sugar plantations, and has continued ever since. Today only 2% of the original forest remains. Furthermore, the land is over-farmed: farmers try to grow as much food as they can without having the correct fertilisers or knowing how to keep the soil fertile. As a result, the more they continue farming like this the less food they produce. Meanwhile, trees continue to be cut down to provide charcoal as fuel for cooking stoves. Poor people cannot afford kerosene or bottled gas for cooking and use wood instead. Wood is also used as a material in building.

The result is that land is often left barren and bare, leaving it vulnerable to landslides and flash flooding. Farmers face losing their livelihoods and many leave the countryside to try to find work in Haiti's towns and cities, which has led to overcrowding.



## **Urbanisation**

More and more people are moving to cities throughout the world. This process is called urbanisation. In Haiti, people have been leaving the countryside for towns and cities faster than many other countries.

52% of Haiti's population now lives in towns and cities. Urbanisation can be positive, but when it happens quickly, some cities find it difficult to cope with new arrivals. In Haiti's capital, Port-au-Prince, wealthy people already live in the best areas such as Petionville so incoming farmers have to build their homes elsewhere.

New arrivals often have little money and so have to build their homes with the cheap and frequently low quality building materials. There are no enforced building regulations that cover safety or quality, and homes are usually not connected to sewer systems and some do not have running water. In Carrefour Feuilles (*Car-for foy-e*) the steep hills have prevented the building of access roads. People literally climb up the hillside to their houses.

(Statistics: CIA World Factbook and Wikipedia)

## **Poor government services**

Governments pay for services such as health care and education by spending the taxes they collect from their citizens. Haiti is a poor country with few people in regular jobs. Therefore few people pay tax, limiting the amount of money the government has to spend on services such as healthcare and education. As a result, for example, only 49% of adults can read and write.

This situation is improved by Haitians living in other countries (known as diaspora), mainly in the USA, sending money back to Haiti to their families. These payments make up half of Haiti's national budget. Other governments also provide aid to assist Haiti's government to provide basic services.

Despite this support, the Haitian government does not have enough money to provide adequate social services and improve the country's roads, ports, energy supply and farming. Yet both farmers in the countryside and residents of the towns and cities require investment money from the government and businesses to lift them out of poverty.

(Statistics: Global Edge and Wikipedia)

## *Geography*

### **Natural earth processes**

Natural earth processes occur regularly around the globe and can be very destructive. They include cyclones, hurricanes, volcanic eruptions, flooding - and earthquakes like the one which struck Haiti in January 2010. In the past decade the global press reported the biggest tsunami in history in the Indian Ocean, severe flooding in India and Pakistan, cyclones and hurricanes in India, Mexico and the US, earthquakes in Japan, New Zealand, China and Pakistan and most recently Hurricane Haiyan which swept through the Philippines in January 2014.

Worldwide, natural processes cause hundreds of thousands of deaths a year and affect the lives of millions for many years afterwards. However, the scale of devastation and effect on people is linked with human activity and poverty. Though the Haitian earthquake was powerful and occurred close to Port-au-Prince, that it killed more than 200,000 people and raised the number of homeless people to 1.5 million



was also the result of poverty. Natural earth processes affect poorer people and countries like Haiti more than richer ones: about 96% of deaths due to so-called 'natural' disasters occur in the 'Global South', where the risk of death is 12 times greater than in the 'Global North'.

### **Haiti is on a fault line**

The ground beneath our feet seems to be stable and fixed in one place, but in fact it is constantly moving. The earth's crust is made of massive interlocking blocks of rock (tectonic plates), rather like a three-dimensional jigsaw. The crust floats on a layer of semi-liquid rock called the mantle. This semi-liquid rock flows from place to place, which causes the blocks of rock in the crust to move against each other. Most of these movements are so small that they can only be detected with special scientific instruments. However, sometimes there is a sudden release of energy in one place, and the crust moves very violently. This can cause cracks in the ground (fissures) and shaking of the earth's crust (tremors).

Earthquakes can happen anywhere in the world, but some places are more at risk than others. Nearly all earthquakes happen at faults: places where plates in the earth's crust join each other. Parts of China, Japan, the Philippines, South America and the USA are situated on major faults. Haiti is likewise situated on a fault line, on the boundary between the Caribbean and North American tectonic plates.

Earthquake strength is measured in two ways. The Richter scale (1-9) measures the amount of energy that an earthquake releases. The Modified Mercalli Scale measures the amount of damage an earthquake causes. The damage caused can depend on how deep beneath the earth's crust the earthquake takes place. In April 2013 there was an earthquake in Iran that released a lot of energy, but it happened very deep down in the earth's crust so its effects were not very damaging. Even so, this earthquake shook buildings as far away as India. The 2010 Haiti earthquake was not so full of energy, measuring only 7 on the Richter scale, but it happened near the surface which meant it caused a lot of damage. It struck on 12 January at 4.53pm local time (that is 9.53pm UK time.)

### **Port-au-Prince was at the epicentre**

The surface point of the earth directly above the focus of an earthquake's greatest power is called the epicentre. Tremors spread outwards from the epicentre and a single earthquake can affect an area of many hundreds of square kilometres. The epicentre of the Haiti 2010 earthquake was just 10 miles south of Haiti's capital city, Port-au-Prince, in a densely populated area where over a quarter of Haiti's people were living.

Earthquakes can start deep in the crust, up to 270km (68 miles) deep, but the most dangerous earthquakes start closer to the surface, at less than 30km (19 miles) deep. The earthquake which struck Haiti was just 8.1 miles below the earth's surface and under land, not sea. Without water to absorb some of the shock waves, the damage caused by the tremors was high. Earthquakes are usually followed by a series of aftershocks, less powerful movements in the earth's crust. There were over 30 aftershocks in Port-au-Prince on 12 January, two of which measured over 5 on the Richter scale (a scale which measures the energy released by a tremor).

Buildings destroyed include the Presidential Palace, the UN Headquarters and a majority of people's homes. Many people slept outside on the streets for the first few nights because they were afraid of aftershocks causing further damage to their homes.



Port-au-Prince has been at the epicentre of an earthquake before: in November 1751, a massive earthquake destroyed the brand new city of Port-au-Prince and a second earthquake measuring 7.5 on the Richter scale hit the city again in 1770, destroying homes, hospitals, churches and government buildings. A further earthquake and tsunami hit northern Haiti in 1842.

### **Hurricanes!**

In 2008, four hurricanes and tropical storms (Fay, Gustav, Hanna and Ike) hit Haiti. In the space of a few weeks, the hurricanes tore apart the lives nearly a million Haitians, hitting the poor the hardest. There was flooding in nine out of the country's 10 regions and roads, bridges, water pipes, houses, schools and other buildings were damaged. Deforested mountainsides made the storms more destructive because water, mud and silt rushed down the slopes flooding coastal plains and burying houses and people in mud. In one city alone, Gonaives, 450 people died.

These storms were not the first to hit Haiti, nor are they the last. Hurricanes have been hitting Haiti for centuries. There were severe hurricanes in 2004, and in 2012 two further significant hurricanes hit Haiti: hurricane Sandy and hurricane Isaac.

The reason for this is that Haiti lies in the hurricane corridor of the Caribbean and is subject to severe tropical storms from June to November. Many Haitian farmers, fishermen, local leaders and government officials have observed that the hurricanes appear to be getting stronger and the rains heavier.

Although it is not possible to say that every extreme weather event is caused by climate change, many scientists now agree that events such as hurricanes are likely to become more severe, if not necessarily more frequent, because of climate change. Climate change is creating conditions for more extreme weather events like Haiti's hurricanes.