

Reflections on the Disaster in Mexico



At precisely 7:18 on Thursday, September 22nd, a massive earthquake battered Mexico City with

devastating tremors and heavy loss of life. An estimated 250 buildings collapsed in downtown Mexico City; 150 more later were judged dangerously close to falling, and the condition of 1,000 others was regarded as unsafe. Over 10,000 people are believed to have perished. As well, more than 10,000 were insured and thousands were missing.

Although this major earthquake does not match the destruction of the Chinese city of Tangshan in 1976, (which left a quarter of a million people dead) it nonetheless has far-reaching implications for the future welfare of Mexico's citizens.

Firstly, Mexico, being a developing nation, faces a current national debt second only to Brazil in the Americas. This means that funds necessary for reconstruction are not readily available and thus a massive influx of foreign aid will be needed.

An even more important consideration is that Mexico City and surrounding barrios are some of the most overpopulated and impoverished areas in the world. With the advent of this natural disaster, conditions in the barrios, especially, have deteriorated even more and living conditions are now at inhumane levels for many.

The media has focused world-wide attention on the plight of Mexico, yet the underlying decay and poverty that existed before and will continue to exist has not been emphasized enough.

We have chosen in this feature to present many of the considerations overlooked by the media while dealing with this natural disaster.

Poverty and development

At present, the primary concern of the Mexican government is to rebuild the downtown core of buildings destroyed by this earthquake. Meanwhile the most devastated barrios such as Morelos, Guerrero and Doctores are now full of people living in the streets. The outbreak of disease is inevitable if these conditions do not change and more people will be added to the growing list of fatalities.

Before the earthquake, as many as six or seven families could be found sharing one of these slum tenements, living conditions by



Graphic courtesy of Ian Smith

our standards were unbearable and death was not an uncommon experience.

Too often we judge development by the growth of industrial and technical capacity. The slums of Mexico City are testament to a warped sense of priorities. Although a disaster such as the recent earthquake is terrible, more people die on a yearly basis from starvation and disease brought on by underdevelopment. Mexico City is one of the world's most polluted areas and this trend will continue without some sort of effort by the Mexican government to curb inner-city development.

As an example of the effects of government reconstruction priorities, let us look at the barrio of Morelos. After the earthquake, all available trucks were confiscated by the government to haul rubble away from the downtown area. These trucks are needed by the people of Morelos to haul fresh water from outside the city and to remove garbage. Without these trucks garbage is piling up and fresh drinking water is unavailable, increasing the chance of disease spreading.

Although the resources at hand for Mexico's government are limited, the

resources of foreign aid are not. This form of aid "is" attempting to tackle poverty as well as the immediate clean-up for its long-ranging value. The highlighted disaster in Mexico has focused attention on this country, but awareness of poverty and starvation must be more strongly influenced if we are to see the real underlying man-made disasters that devastate worse than any earthquake can.

The Example of Cubatao, Brazil

Following the theme of man-made disaster, let us now look at the most polluted city in the world, termed by its inhabitants as "the city of death." Many of the extreme situations found here can be paralleled with conditions in Mexico City. The ruling generals of Brazil announced at a recent U.N. conference on ecology: "Brazil welcomes the pollution that brings progress."

Red iron oxide tints the air from a Cosipa steel factory, toxic ammonia and deadly phosphate dust spew from Union Carbide's plant and the plants of 23 other industries. Now, the 80,000 inhabitants are bombarded with 1,000 tons of chemical filth and



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many will die within a few years.

This closely parallels the situation in Mexico. Even before the earthquake, the barrios were deplorable by North American standards. This while Mexico City was a thriving metropolis. In short, the barrios will always need help as long as we continue with our abuse of technology and uncaring attitude towards others.

Ironically, what is widely considered the most dangerous fault line in the Western Hemisphere lies under the 300-mile long Mexican Pacific coastline — long considered one of the most beautiful places in the world. This was the fault that caused the recent earthquake in Mexico.

This quake measured 7.8 on the Richter scale. To put this in perspective consider the following: an earthquake measuring 2 is almost unnoticeable; one measuring 5 can break dishes and windows; the 1906 San Francisco quake measured 8.3 and the Chilean earthquake of 1960, the worst quake of history, registered 9.5. Each unit on the Richter scale indicates an increase in power 30 times that of the previous unit.

Since 1981, scientists have been warning that earthquake activity was likely in this area. The reason for this is the area had remained calm for too long a period. The epicenter was located in the ocean and within a geological DMZ region referred to as a seismic gap. This region had gone several years without a major quake and was the focal point for stress that had been building up due to tectonic plate activity.

This activity is the result of the constant movement of the dozen larger and numerous smaller plates that make up the earth's crust. These plates travel in opposing directions, grinding against each other at a pace of about a millimeter a week. This motion is what causes continental drift, mountains, volcanos, and earthquakes.

Mountains are formed when plates collide and the crust buckles. If the plates grind against each other, they sometimes become stuck. After pressure builds to a certain level, the plates slip — resulting in strike-slip quakes. The Mexican earthquake was caused by the meeting of a continental plate and an oceanic plate. These were the Cocos plate of the Pacific floor off Mexico and the North American plate. The Cocos plate, propelled forward by an unrelenting force, became stuck under the North American plate and then lurched ahead about 10 feet. This is what is called a thrust quake.

Cities on the rocky shoreline, though only 50 miles from the epicenter, suffered less than Mexico City, located on an alluvial lake bed 200 miles away. The city's sediment foundation acts to amplify the shock waves. Add to this that many of the buildings were tall and had not been built to quake-resistant standards.

According to scientists, the Pacific coastal areas of Mexico and Guatemala can expect major earthquakes in the near future. Some believe that as many as five in the vicinity of 8.0 can be expected in the next five years.

It is important that some sort of relief framework for the future be established now. Without it, an already strapped economy that has been further staggered by the earthquake will not be able to cope with the almost-certain future earthquakes.

This week's feature was co-written by Mike MacKinnon and Rick Hutchins. At present a student group has been formed to aid with Earthquake relief programmes already underway. Students wishing more information, please contact either of the above at the Bruns office, room 35 of the SUB