

The new danger maps for the Popocatepetl are prepared based on the geological history of the volcano. Through field work and historical archives research, eruptive styles, recurrence, and extent during geological and historical periods were identified. With this information, danger scenarios were projected by means of computer simulation. These scenarios are based on eruption magnitude and probability of occurrence

Small size eruptions with eruptive columns under 10 km are more frequent, while medium size eruptions with eruptive columns from 10 to 20 km height are less frequent although larger. Large eruptions with eruptive columns over 20 km (yellow) are less probable, but they are highly destructive

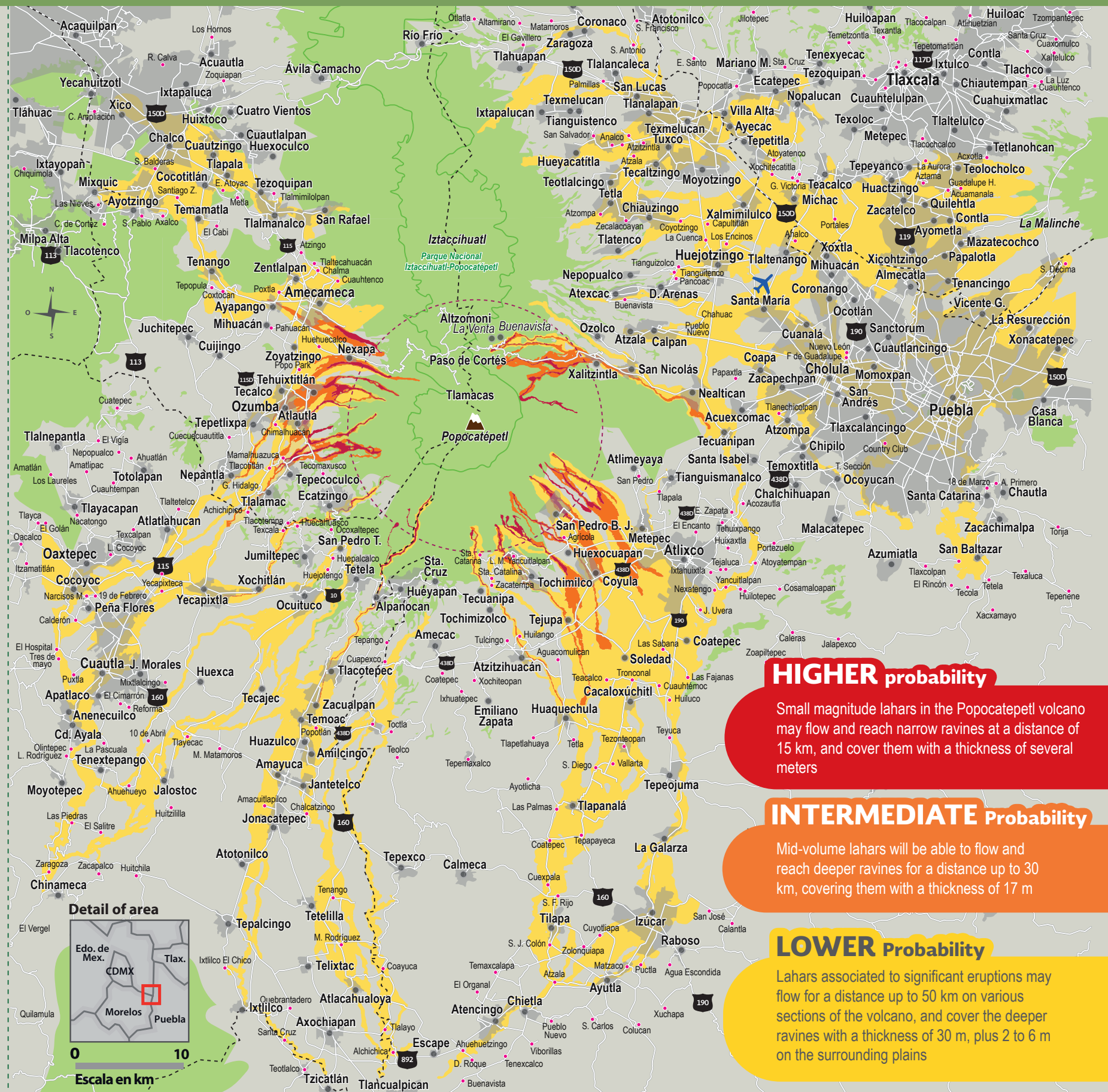
What are they?

Lahars are volcanic mud and rubble currents flowing down along the volcano slopes, pulling with them additional material that is deposited flooding the low lands. These flows contain loose volcanic material (ashes, blocks) blown out in an ongoing eruption or in previous eruptions, that have settled on higher volcanic areas. They flow along stream beds and the range depends on the volume of material moved, they amount of water incorporated into the mixture (rain water, melting snow, or streams) and the volcano's topography

Even inactive volcanos may produce lahars during extraordinary rains or storms

Signage

-  Volcano
-  Urban areas
-  Small towns
-  Roads
-  State border
-  Exclusion area
-  Airport



HIGHER probability

Small magnitude lahars in the Popocatepetl volcano may flow and reach narrow ravines at a distance of 15 km, and cover them with a thickness of several meters

INTERMEDIATE Probability

Mid-volume lahars will be able to flow and reach deeper ravines for a distance up to 30 km, covering them with a thickness of 17 m

LOWER Probability

Lahars associated to significant eruptions may flow for a distance up to 50 km on various sections of the volcano, and cover the deeper ravines with a thickness of 30 m, plus 2 to 6 m on the surrounding plains

Popocatepetl volcano: Lahars

Did you know that...?

The **crater** has a size of 600 x 800 m and is partially full due to lava domes

Crater level in

• **2016**

and

• **1994**

Elevation
5,452
meters above
sea level

If the **Latin American Tower** were inside the crater, it would only occupy a small area

It is **located** in the central part of the Trans-Mexican Volcanic Strip, at a distance of...

60 km	30 km	50 km	65 km
from Mexico City	from Puebla	from Tlaxcala	from Cuernavaca

It is
one of the
most active
and high risk
volcanos in
Mexico

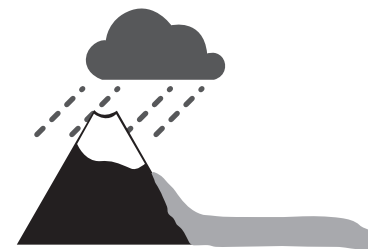
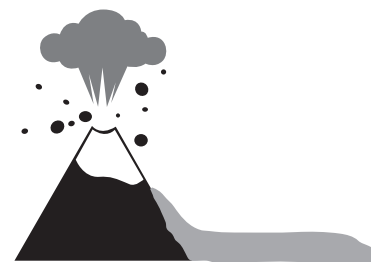
23 million people
reside within a
100 km radius from the volcano

Heavy rain, after accumulation of 15-20 mm, may trigger lahars

Long lasting **moderate rain** may produce lahars, after 2 or 3 hours of constant rain

Lahars or mudslides

Are produced when materials blown out by eruptions are mixed with water and create flows moving slide down. They may occur during or after an eruption



Water comes from lakes, creeks, rivers, glacial melting, or snow capping the volcano, or from torrential rains that remove volcanic materials deposited on the volcano

Suggestions Before



Keep informed, don't spread rumors, and follow instructions given by authorities



Identify evacuation routes and temporary shelters



Prepare a civil protection family plan, and your emergency back-pack



Learn how to protect your cattle and your pets

During



If you are on the volcano, don't walk through the ravines



With your family, go to a safe area that has previously been identified



Shut off the power, water, and gas mains



Protect yourself on higher areas

After



Continue staying informed, and follow instructions by authorities



Avoid areas affected by volcanic eruptions because rocks, lava, and ashes are hot for a long time



Check your home's conditions