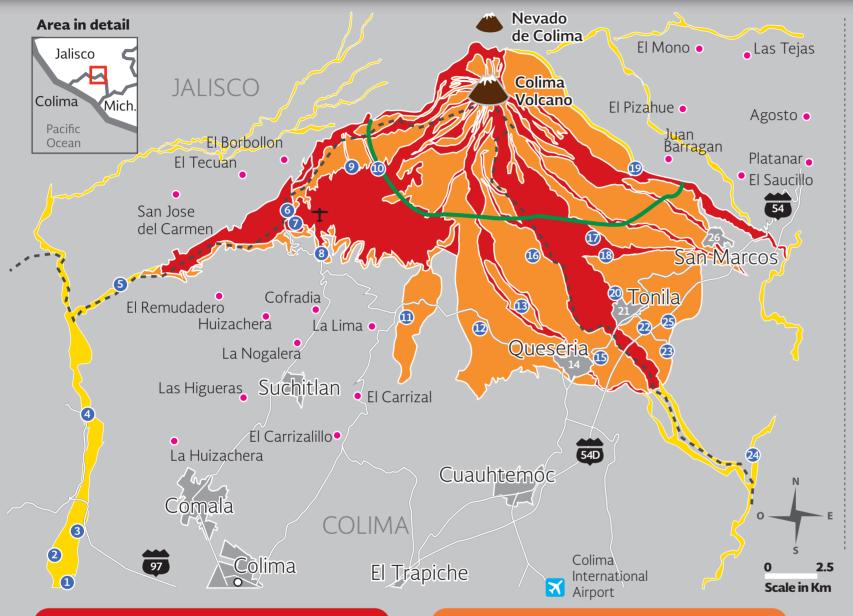
# COLIMA VOLCANO

# Pyroclastic flows, lahars (mudflows) and lava



#### Legend

Roads

Airport

State limits

Major towns

Landing strip

Towns

#### Towns within hazard zones:

1. Santa Lucia 2. El Dos

15. Caserio 16. El Tejocote

3. Abel Diaz Chavez

17. Causentla 18. La Cofradia

20. Durazno

4. Bombeo de Zacualpan 5. El Remate

19. Los Guzmanes

6. La Becerrera 7. El Jabali

21. Tonila

8. Los Zapotes 9. La Yerbabuena

22. Las Coronas 23. El Piloto 24. La Esperanza

10. El Fogonal 11. El Naranjal

25. Tonilita 26. San Marcos

12. Montitlan 13. Bordo Carrizalillo

14. Oueseria

Area within 7.5 km from the crater, which could be affected by lava flows similar to the ones which occurred in prehistoric times

## **Area 1** HIGH HAZARD

Frequently affected by pyroclastic flows and secondary lahars. Small lahars can occur every decade, while large lahars are associated with larger eruptions which happen around every 100 years

# Area 2 MEDIUM HAZARD

Can be reached by high mobility pyroclastic flows and ashclouds which can pass over hills

### Area 3 LOW HAZARD

Areas subject to inundations caused by the accumulation of volcanic products

#### Learn more

**National Center for Disasters Prevention** www.gob.mx/cenapred

Source: Adapted from the Hazards map of Colima volcano made by the Institute of Geophysics at UNAM











# About Colima Volcano

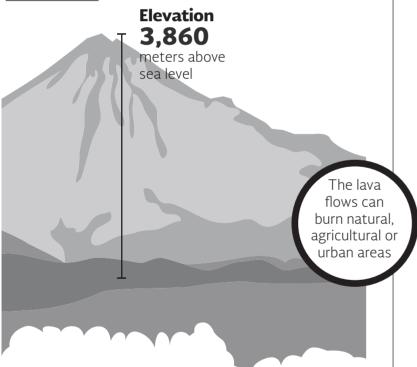
Pyroclastic flows, lahars (mudflows) and lava

# **Colima Volcano:**



#### Location

26 km southwest of Ciudad Guzman, Jalisco, and 32 km northeast of the city of Colima



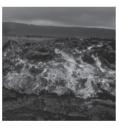
### **Lava flows**

The lava emitted by the volcano flows downhill as a viscous fluid



#### **Basaltic lava**

Is less viscous so moves rapidly downhill, and can reach distances of tens of kilometers



#### **Andesitic lava**

Is more viscous so its speed is less. The flow is thicker and reaches shorter distances

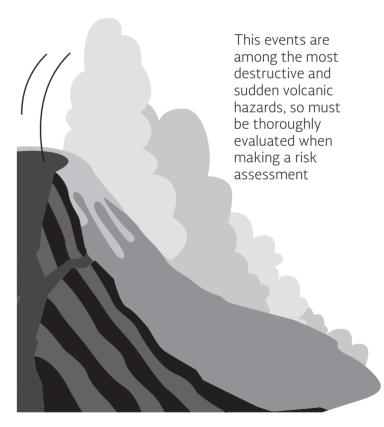


# Dacitic and rhyolitic lava

The most viscous, they tend not to flow but instead accumulate around the vent, forming domes

# Pyroclastic flows and surges

Turbulent mixture of rock fragments, ash, pumice and gases at high temperatures of up to 700°C, which flow over the terrain at speeds of over 200 km/h



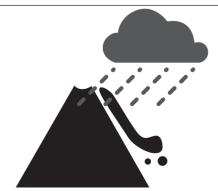
# **Lahars or mudflows**

Are generated when loose volcanic materials mix with water to generate flows that move rapidly downslope



#### **Primary lahars**

The water comes from the melting, due to the eruption, of glaciers or snow atop the volcano or from crater lakes



### **Secondary lahars**

Due to torrential rains that mobilize the loose materials that cover the volcano, without the need for an eruption