L.A.V.A. EUROPE · VOLCANIC RISK · ROLE-PLAY GAME

Facilitator questions

Scenario 1 · Guía de Isora and Chío (12 players)
Scenario 2 · La Orotava and Guía de Isora + a tourist (13 players)

How to use: the v2 presentation shows only what happens physically at each step.
After each slide, read the step aloud, then ask the main question and let every family answe
The extra questions are prompts for when a family gets stuck or answers too fast.
“Good answers · traps” is for you: it summarises what the step is testing.
Fictional exercise, not a forecast · Tenerife, November 2026 · desaplatanate.org

SCENARIO 1 · Strombolian eruption above Guía de Isora

STEP 1 OF 5 · GREEN · Pre-alert

A normal day in Guía de Isora

What happens
Green light, as it has been for decades. The Hernández family lives in the town; the Dorta family runs a rural hotel in Chío, 4 km uphill, closer to the volcanic ridge. Children at school, parents at work, grandparents at home.

Main question
Where is each of you right now – and where is your family meeting point?

Extra questions
- Who in your family would not hear a siren – and who would ignore it?
- Where is the nearest place out of this valley that you could reach on foot?
- What do the Dorta guests know about volcanoes? Who tells them?

Good answers · traps
Step 1. Make every player place themselves on the map: home, school, work, the hotel. Most families discover they have no meeting point. Let them agree one now (out of the valley, reachable on foot).

STEP 2 OF 5 · YELLOW · Alert

Smoke on the ridge

What happens
Three weeks of small earthquakes under the south-west flank. Today a plume of steam rises above Chío and the town smells of sulphur. PEVOLCA raises the light to yellow: prepare, stay tuned to official channels.

Main question
What goes in your family bag tonight? Who looks after the grandparents, the dog and the cat?

Extra questions
- What goes in the bag first – and what do you leave behind?
- Carmen is on shift: does she leave work? Who decides?
- Where do the hotel guests go tonight? Who drives the minibus?
- The cat and the dog: carrier, lead, food – do you have them?

Good answers · traps
Yellow. The phase that decides everything – on La Palma it lasted six days. Bag: documents, medication, water, radio, torch, chargers, masks, pet carrier. Chona (Dorta) already has one; ask the others why they do not.

STEP 3 OF 5 · ORANGE · Maximum alert

Night: the big shake

What happens
At 3:40 a magnitude 4.6 earthquake wakes the valley. Total blackout from Chío to the coast, no mobile network. Above the ridge the sky glows red. At 6:00 the light goes orange: preventive evacuation of Chío and the upper town towards Playa San Juan.

Main question
No phone, no light, a glow on the ridge: how do you gather your people, and in which order?

Extra questions
- No phone: how does Jonay in the banana farm learn what is happening?
- In which order do you move people: grandparents, children, guests, animals?
- The road downhill is dark and full of cars. Do you drive now or wait for daylight?

- Tomás refuses to leave. What do you say – and what do you do if he still refuses?

Good answers · traps
The classic surprise: night, blackout, no coverage. Only Tomás has a battery radio – and did not hear the siren. Good answers: car radio, go to the meeting point, check neighbours, move the grandparents while the roads are empty. Bad answers: driving uphill to look; waiting for a WhatsApp.

STEP 4 OF 5 · RED · Emergency

The fissure opens

What happens
At 13:20 a 600 m fissure opens above Chío. Lava fountains 200 m high, a new cone grows by the hour. A lava river runs downhill at 30 m per hour through the banana farms, straight towards Guía de Isora. Light ashfall over the town.

Main question
Benito wants to go back for the goats; Naira wants to film from the ridge. What does the family decide?

Extra questions
- Benito wants to go back for the goats. Who stops him, and how?
- Naira wants to film from the ridge. Where is the limit between curiosity and danger?
- The light is red: who in your family is still not at the meeting point?
- Ash begins to fall: what do you do with windows, cars, water tanks?

Good answers · traps
Red. A Strombolian eruption like Chinyero 1909 or La Palma 2021. Slow lava tempts people to go back – that is how people die: gases in houses, new vents, collapsing fronts. Masks for ash, close windows, never touch the flow.

STEP 5 OF 5 · RED · Emergency

Day 3: lava in the town

What happens
The flow buries the upper streets of Guía de Isora and the road to Chío. Ash covers the square. The Dorta hotel is cut off; the Hernández house is 300 m from the lava front. Both families sleep in a sports hall in Playa San Juan.

Main question
Where do you sleep tonight, for how long – and who in your family is not coping?

Extra questions
- Where do you sleep tonight, and for how many nights?
- Who in your family is not coping – and what does he or she need?
- The Dorta hotel is cut off: what happens to the business, the guests, the goats?
- What did you decide at step 2 that saved you – or cost you – today?

Good answers · traps
The long emergency: on La Palma the eruption lasted 85 days. Housing, income, school, mental health, information fatigue. Then "back to normal": ash on roofs, gas in cellars, unstable lava. Run the mini-debrief: what did each family do well, what did they miss?

SCENARIO 2 · Explosive Teide eruption, pyroclastic flows towards Icod

STEP 1 OF 6 · GREEN · Pre-alert

A Saturday under the Teide

What happens
Green light. The Pérez family is in La Orotava, on the north side of the volcano. The Mesa family is in Guía de Isora, on the south-west side. Airam runs the cable car at 2,350 m; Anna, a Polish tourist, hikes to Montaña Blanca.

Main question
Thirteen people on four sides of a volcano: draw where everyone is at 11:00.

Extra questions
- Thirteen people on four sides of a volcano: where is everyone at 11:00?
- Airam is at 2,350 m with 600 tourists on the way up: what is his plan if the mountain closes?
- Anna has no Spanish and no local number: who would she ask for help?

Good answers · traps
Scenario 2, step 1. Thirteen players spread around the volcano: north (La Orotava), south-west (Guía de Isora), summit (cable car, Anna). The big difference from scenario 1: people are far apart, and the volcano is the explosive one.

STEP 2 OF 6 · YELLOW · Alert

Four months of signals

What happens
Since spring: earthquake swarms under Teide, 6 cm of uplift, fumaroles ten times stronger. Yellow light. The National Park closes above 2,000 m; the cable car runs with restrictions. Scientists speak of a possible explosive eruption.

Main question
Nieves in Los Realejos does not believe it. Paco needs oxygen at night. What do you prepare, and for whom?

Extra questions
- Nieves does not believe the scientists. How do you convince her – or do you not try?
- Paco needs oxygen at night: what must be ready before the light turns orange?
- The cable car keeps running under restrictions: should Airam keep going to work?
- Elena teaches 24 pupils: what does the school plan say, and does she know it?

Good answers · traps
A long yellow phase, months, as before many explosive eruptions. Economic pressure (tourism, the cable car) against the signals. The oxygen-dependent grandfather needs a plan with the health service now, not later.

STEP 3 OF 6 · RED · Emergency

The column: 15 km high

What happens
A magnitude 4.9 earthquake, blackout in the north, no mobile network. At 16:05 Teide explodes: a Plinian column 15 km high, lightning inside it. The trade winds carry the ash south-west, towards Guía de Isora. The cable car stops with 80 people at the top.

Main question
Airam has 80 tourists at 3,500 m and one 4×4. Anna is alone on the mountain with a bike. Elena has 24 pupils and no signal. Your calls?

Extra questions
- Airam has 80 tourists at 3,500 m and one 4×4: who goes first?
- Anna is alone on the mountain with a bike: which side does she go down – north or south-west?

- Elena has 24 pupils and no signal: keep them or send them home?
- The ash goes south-west, towards the Mesa family: what do they do in the next hour?

Good answers · traps
Red. Plinian column, pumice fall downwind (south-west: Guía de Isora), darkness, blackout. The cable car has emergency procedures (walk down, station shelter). Anna must choose: down the Orotava side (towards the north flank – bad) or the Cañadas road to the south-west (better). Elena: the school plan says keep the children until parents collect them – is that right today?

STEP 4 OF 6 · RED · Emergency

Pyroclastic flow towards Icod

What happens
At 18:40 the column collapses. A pyroclastic flow races down the north flank at 150 km/h towards Icod de los Vinos; a second lobe runs down the upper Orotava valley. Sirens. Total evacuation north of the TF-5: east towards La Laguna, west towards Buenavista.

Main question
The Pérez family: Los Realejos is on the edge of the second lobe, the TF-5 is jammed. Who collects Nieves, Paco and the dog – east or west?

Extra questions
- The TF-5 is jammed: east towards La Laguna or west towards Buenavista?
- Who collects Nieves, Paco and the dog in Los Realejos – and what if nobody can?
- A pyroclastic flow cannot be outrun: what did the families decide at orange that matters now?
- The sea: is a boat a safe place? For whom, and for how long?

Good answers · traps
The worst case, as at Mount Pelée 1902 or Unzen 1991: nobody outruns a pyroclastic flow – the only protection is not being there. This step tests the earlier decisions: the families that left at orange are safe; the ones who waited are choosing between a jammed road and the sea.

STEP 5 OF 6 · RED · Emergency

Ash falls on Guía de Isora

What happens
In the south-west it is night at midday. Ash and pumice fall for hours on Guía de Isora, Adeje and the south airport, now closed. Roofs creak, roads are slippery, the water tanks fill with grey dust. The Mesa family is safe from the flows – but cannot breathe outside.

Main question
Masks, water, closed windows, roofs: what protects you, and for how long? Do you drive out, or do you shelter?

Extra questions
- Night at midday in Guía de Isora: do you drive out, or do you shelter?
- Masks, water, closed windows, roofs: what protects you, and for how long?
- The south airport is closed: what does that mean for help arriving, and for tourists leaving?
- Lola and Manolo in Alcalá, Manolo thinks the boat is safest: do you agree?

Good answers · traps
Ash is the hazard of the downwind side: FFP2 masks, goggles, stay indoors, clear roofs before 10 cm accumulate, do not drive (zero visibility). Moving in a traffic jam under ashfall is the worst option. Pumice is light, but 10 cm of wet ash collapses roofs.

STEP 6 OF 6 · BACK TO NORMAL

After the eruption: a different island

What happens

Six weeks later the eruption ends. Rain turns the ash into lahars down the barrancos of La Orotava. Icod has lost its upper neighbourhoods; the cable car is destroyed. Families return street by street, as the authorities open them. Tourism takes two years to recover.

Main question

Each family: three things you would do differently from step 1. And what did Anna, the tourist, need that nobody gave her?

Extra questions

- Each family: three things you would do differently from step 1.
- What did Anna, the tourist, need that nobody gave her?
- Who returns first, who returns last – and who never returns?
- Rain and lahars: which barranco near your home would carry ash and cars?

Good answers · traps

Back to normal is also a phase of the plan: lahars after rain (Nevado del Ruiz 1985), ash on roofs, gases, damaged pipes. Collect the three answers per family on a flipchart – they feed the next slides.