M8.0 Pisco, Peru, Earthquake of 15 August 2007

**Earthquake Summary Map**

- **Earthquake**:
  - Magnitude (Mag): 8.0
  - Depth (Depth): 30 km
  - Epicenter:
    - Latitude: 11.36° South, 77.43° West
    - Depth: 30 km

- **Time**:
  - Date: 15 August 2007
  - Time: 23:36 UTC

- **Source**:
  - USGS National Earthquake Information Center
  - Map prepared by the U.S. Geological Survey

**Magnitude**

- **Type**:
  - Moment Magnitude (Mw)
  - Magnitude 8.0

**Depth**

- **Type**:
  - Depth 30 km

**Epicenter**

- **Location**:
  - Near the coast of Central Peru
  - Epicenter is located near the coast of central Peru.

**Aftershocks**

- **Significant Earthquakes Mag ≥ 8.0**
  - 1900 - 1999, Aftershock: M ≥ 8.1
  - 1942, M 9.0 Peru earthquake
  - 1947, M 8.2 Peru earthquake
  - 1974, M 8.1 Peru earthquake
  - 1996, M 7.7 Peru earthquake

**Tectonic Setting**

- **Type**:
  - Subduction zone
  - The earthquake occurred in the boundary between the Nazca and South America plates.

- **Geology**
  - The Nazca Plate subducts under the South American Plate.
  - The subduction zone is characterized by a subduction zone with a large depth to the slab.

**Seismic Hazard**

- **Type**:
  - The earthquake occurred in a tectonically active zone.

- **Risk**
  - The region is prone to seismic activity due to the subduction process.

**Depth Profile**

- **Type**:
  - The depth profile shows the variation of depth with distance from the epicenter.

**Finite Fault Model**

- **Type**:
  - The finite fault model shows the distribution of slip along the fault plane.

**References**

- USGS, National Earthquake Information Center.