CNE
Consejo Nacional de Energía
PROGRAMA REGIONAL
DE ENTRENAMIENTO GEOTÉRMICO

LaGeo

BID

NDF

Geothermal Energy:
Challenges and Opportunities
El Salvador

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Regional Geothermal Training Program

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General Information of El Salvador

- *Location*: Central America, between Guatemala and Honduras bordering with the North Pacific Ocean.
- *Territorial Extension:* 20,742 km^2 (approx.)
- *Population:* 6.1 million; Population Density of 294 h/km^2

Compared to El Salvador:

Mexico

Land: 94 times larger

Population: 19 times higher

Costa Rica

Land: 2.5 times larger

Population: 0.8 times lower

El Salvador

Mongolia

Land: 75 times larger

Population: 0.5 times lower

Taiwan

Land: 1.6 times larger

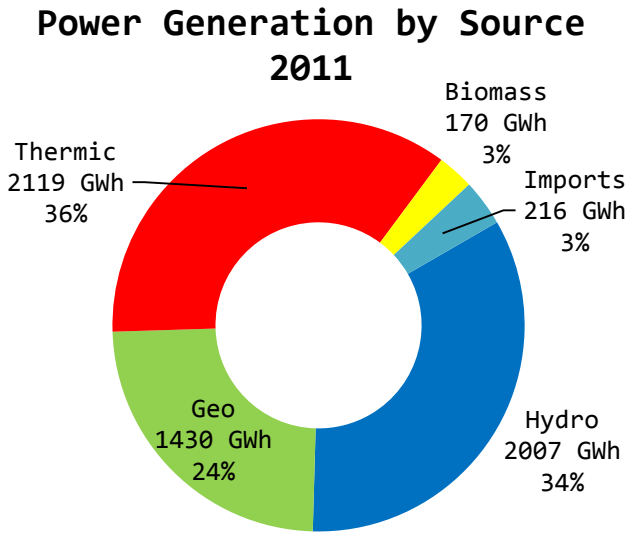
Population: 3.8 times higher

Japan

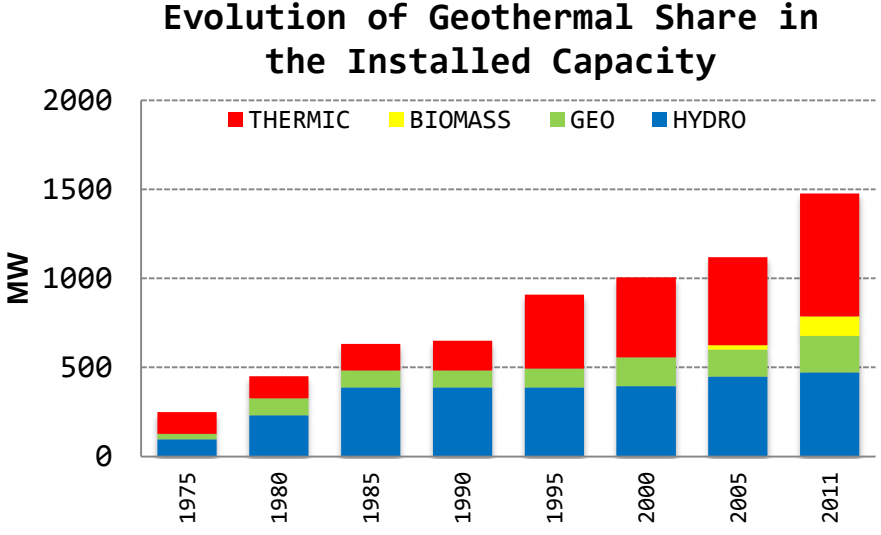
Land: 18 times larger

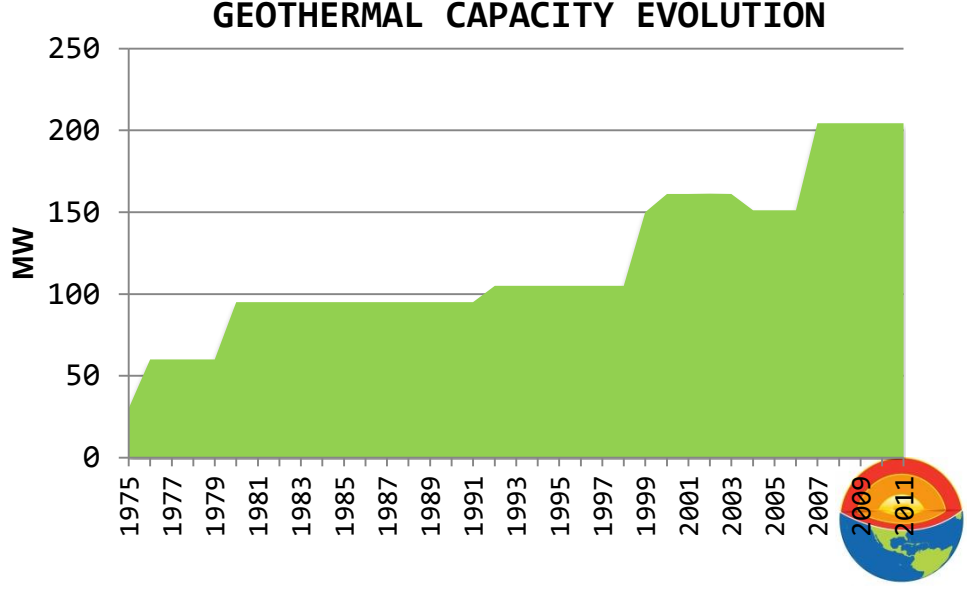
Population: 21 times higher

Generation Mix



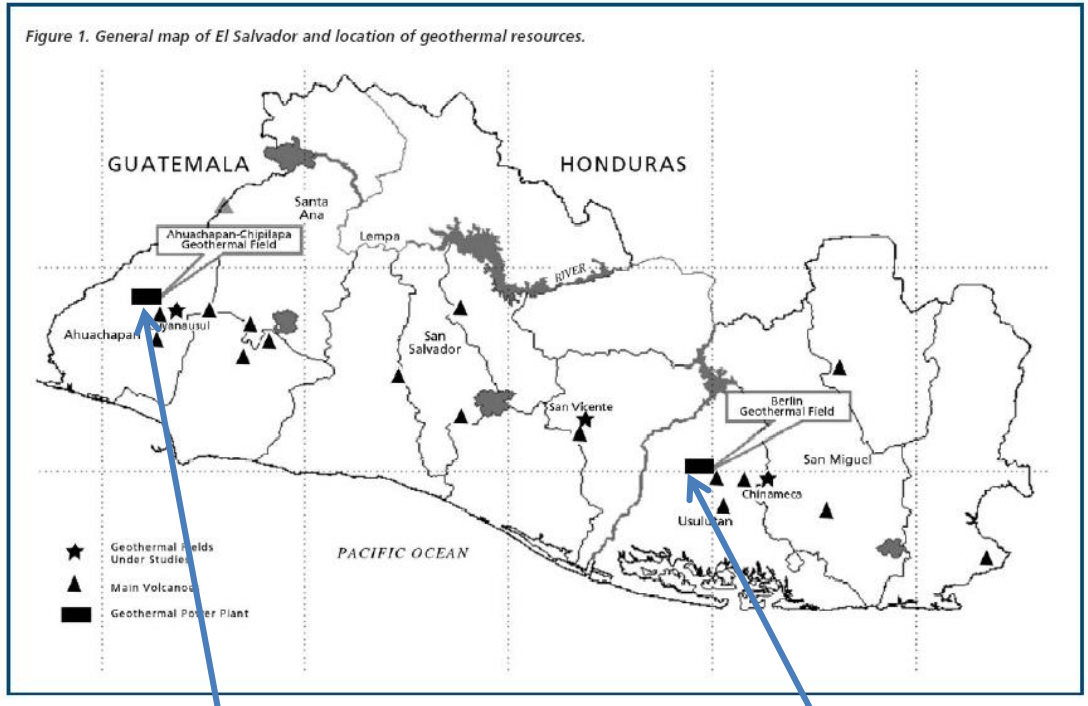
Evolution of Geothermal Share in the Installed Capacity								
	1975	1980	1985	1990	1995	2000	2005	2011
% Hydro	38.6	51.4	61.4	59.7	42.7	39.2	40.1	32.0
% Geo	12.0	21.1	15.0	14.6	11.6	16.0	13.5	13.8
% Biomass	0.0	0.0	0.0	0.0	0.0	0.0	2.2	7.4
% Thermic	49.4	27.5	23.6	25.7	45.7	44.8	44.2	46.8





Current Status

- In El Salvador there are two high-temperature geothermal fields under concession to LaGeo that are being exploited for power generation (Ahuachapán and Berlin) with a total nominal installed capacity of 204.4 MWe
- Estimations project that Ahuachapán and Berlin geothermal fields ensures between 25 to 30 additional years of production.
- LaGeo has the concession of two more geothermal fields of high temperature, San Vicente and Chinameca.



Generation Plant in Ahuachapán
95 MWe

Generation Plant in Berlín
109.4MWe

Capacity Building

- Project started in 2012 by CNE, UES, LAGEO
- Funds by IDB and NDF
- Advisory by UNU-GTP
- Goal: Create a Center for Geothermal Training for LAC
- Base line: Diploma courses with aid of Italy
- Recommendations for improvement UNU-GTP
- Until now 5 editions of the Diploma Course
- In total 143 participants LAC

Diploma Course Structure

Mod	Description	Total Hours
1	General Concepts	49
2	Geological exploration	51
3	Geochemical exploration	47
4	Geophysical exploration	60
5	Geothermal drilling	30
6	Reservoir engineering	63
7	Geothermal plants and low temperature applications	37
8	Environmental and social project management	35
9	Final Project	6 weeks
TOTAL		372

Next Steps (Challenges)

National Council of Energy
Regional Geothermal Training Program

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