



TV

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UN IN ACTION

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ICELAND: GEOTHERMAL ENERGY

VIDEO

LANDSCAPES GLACIER SHOTS

GEYSERS

WAIRIMU AT WORK IN FIELD

WAIRIMU ON CAMERA

LANDSCAPES

AUDIO

NARRATION:

Bordering the Arctic Circle, Iceland is home to some of the largest glaciers in Europe. (5.5)

But under the cold surface, the earth is bursting with heat. (4)

Iceland is one of the most geothermally active places on our planet. (4)

Geophysicist Anna Wairimu Mwangi has traveled from Kenya, trying to uncover the wonders of Iceland's geothermal power. (8)

ANNA WAIRIMU MWANGI: (In English) F

"When you're studying geology, to me it's like you are in an adventure, and you want to unravel what was happening in the past." (6)

NARRATION:

Iceland sits on the boundary of two tectonic plates that have been shifting apart by two centimeters

per year. (7)

LANDSCAPE VALLEY

Over the millennia, this movement has created the geologically significant rift valley, known as Thingvellir. (6.5)

STEAMS AND LAKE

The separation of the plates allows lava to move closer to the earth's surface, creating numerous volcanoes and geothermal fields, which heat up underground water and steam. (12)

ANNA AND OTHERS IN FIELD

Anna is among a selected group of scientists from more than 50 developing countries. They're participating in a geothermal training programme at the United Nations University, UNU. (11)

GEOHERMAL PLANT/GROUP OF PARTICIPANTS WITH EINAR

They visit geothermal plants and see first hand their operations in separating steam and water, with the steam used to generate electricity. Einar Gunnlaugsson from Reykjavik Energy: (11.5)

GUNNLAUGSSON ON CAMERA

EINAR GUNNLAUGSSON: (In English) M
"And then the steam is taken here to the small units here. The separators separating the last remaining droplets from the steam. After that the steam is dry and can be used directly into the turbines." (17.5)

POWER PLANT

NARRATION:
Geothermal energy accounts for roughly 26 percent of Iceland's electricity production. Most of it is used to power heavy industries. (8.5)

Hot geothermal water, too, is a significant source

PIPE	of energy transported in pipes to towns and cities such as the capital, Reykjavik. (8.5)
REYKJAVIK	Heated at 73 degrees celsius, hot water flows
TAP WATER/RADIATOR/ANNA IN HOUSE	directly from taps. It's used to heat ninety percent of Iceland's homes, including the one Anna shares with fellow classmates... (13)
GEOHERMAL RESTAURANT	...In the town of Hveragerdi, creative use of geothermal water has led to new businesses such as this geothermal restaurant. Olafur Reynisson is the owner. (11)
OLARFUR	<p><u>OLAFUR REYNISSON</u>: (In English) M "This is 'Earth Cooking' – geothermal cooking. This is 170 Celsius hot power...And here we are doing baking potatoes. Usually in the oven you use a lot of heat and a long time; here only twenty minutes." (13.5)</p>
BLUE LAGOON	The water, believed to have health benefits, is also used to fill Iceland's popular hot pools. The Blue Lagoon - Iceland's famous therapeutic spa – uses geothermal water directly from a nearby power plant. (13.5)
BLUE LAGOON	<p><u>INGVAR FRIDLEIFSSON</u>: (In English) M "It's very important to expand the use of renewables..</p>
BIRGIR ON CAMERA	...and especially in the developing countries because that is where most of the increment in energy use will be." (12)

NARRATION:

BIRGIR IN CLASS

Ingvar Fridleifsson is the Director of the UNU Geothermal Training Programme based in Reykjavik. This program has already trained more than 500 scientists and engineers from countries around the world with geothermal potential like Kenya. (14.5)

ANNA IN CLASS

ANNA/LANDSCAPE

WAIRIMU: (In English) F

“I think geothermal is the future. It is a resource that is renewable, and it’s a clean energy. We don’t have to pollute. It’s one of the ways of securing our energy for the future.” (12)

UN LOGO

This report was produced by Luis Patron for the United Nations. (4.5)