

Episodes 44e and 44f, Estonia, Greece, Haiti, India, Multnomah County Oregon, Rwanda, and Utah, steps forward toward clean air and some steps backward.

44e Estonia, Greece, Haiti, India, and Multnomah County, Oregon

In the Baltic region, one step back for clean air. On Monday 10/10/2022, the European Commission approved Estonia's plan for use of the European Union's "green" transition fund, and €354 million funding. This money will be used to support green and transitional projects in Ida-Viru County. Eesti Energia wants to use money from the E U's green transition fund to convert part of its Baltic power plant (B P P) to burn waste wood products. This will reduce district heating prices in Narva and secure Estonia's electricity supply, Eesti Energia said.

In Greece, one step forward for clean air. On 10/7/2022 at clean air Greece tweeted about a photograph of a load of wood for sale in Greece, writing, "That wood won't last for more than 3-4 weeks if you want to warm up your house properly. At that price, it's more expensive than using electric heaters! I can't believe people are switching to burning wood, they will regret it soon! [#airpollution](#) [#energycrisis](#) [#cleanair](#)"

In Germany, one step back for clean air. A German woman posted, "Stupid wood burning pollutes the environment. When your own cat comes in and smells like a forest fire." Air Quality readings attached. Ungesund in German translates as unhealthy.

In Haiti, one step back for clean air. Wood fires are being set to sow chaos in the streets, a common tactic of terrorists. Setting wood fires is not going to help lower fuel prices. October 3, 2022 a man adds wood to the fire burning in the streets as demonstrators protest to demand the resignation of Prime Minister Ariel Henry in the Petion-Ville area of Haiti's capital Port-au-Prince. Haiti officials said on 9/30/2022 that it had "formally" sought international assistance with a worsening security situation. The poorest country in the Americas, Haiti is facing an acute political, economic and security crisis. Protests and looting have rocked the already unstable country since September 11, when Prime Minister Ariel Henry announced a fuel price hike. A government official said, "you have one of the most notorious armed gangs...still keeping the fuel ports under their grip. It has been more than 20 days." The United Nations warned of a possible explosion of cholera cases in Haiti. And it made an appeal for the creation of a humanitarian corridor to allow for the release of fuel at the Varreux fuel terminal, the country's largest, under the control of powerful armed gangs. Haiti, which shares the mountainous Caribbean island of Hispaniola with the Dominican Republic, has a population of more than 11 million.

In India, on 10/16/2022, one step forward for clean air. Hundreds Of Women In Jharkhand's Lohardaga Are Raising Awareness Against Household Air Pollution. A 48-year-old woman who has been cooking food for her family on a chulha (wood fire oven) for seven years thought the smoke coming out of it was harmless. Just like her, the other women of the Lohardaga district of Jharkhand also thought alike. This perception changed soon when she attended a program on air pollution and climate change on December 2, 2020. The 48 year old woman said that she got to know about the term 'household air pollution' for the first time in this program organized by a Jharkhand-based N G O. Til then the women of the Hendlaso village, were unaware of household air pollution and its impact on health. During the program, the women were taught to measure in-house air quality and ways to reduce the impact of pollution. When she measured the air quality of her kitchen for the first time, the count of fine particulate matter PM 2.5, a pollutant, was near about 900 micrograms per meter cubed as against the normal range of 40 micrograms per meter cubed. The 48 year old woman said that she was then informed that this range is extremely dangerous. She has constructed a window for proper ventilation in the kitchen. Also, she stopped burning plastics, and papers in the chulha to lower the pollution levels. She also started cooking on an L P G stove to minimize the use of chulha. This alarmed her about the numerous other households that were unaware of the situation. She then started a self-help group to spread awareness. She now runs a self-help group (S H G) under the Jharkhand State Livelihood Promotion Society (J S L P S). J S L P S is a nodal agency for the implementation of National Rural Livelihood Mission (N R L M) projects. Her S H G has reached 400 women til now and they have also joined the campaign against pollution. A similar view was shared by a female resident of Hariharpur village. The Hariharpur resident shared the same, that she was unaware of the household air pollution. She said that she will build a kitchen outside her living room so that smoke goes out easily. She has also joined the mission to make people aware of the health impacts due to air pollution in her village. The smoke coming out of the chulha is known to cause various harmful effects such as eye inflammation, respiratory problems and heart diseases.

In Oregon, one step back for clean air. On 10/10/2022 in Multnomah County, Oregon, Wildfire smoke from across the Pacific Northwest entered the Portland Metro area this weekend leading health officials to extend a [mandatory wood burning restriction](#) for Multnomah County residents. This restriction does not apply to cooking. Exemptions are available for those in emergency situations. Burn restrictions are posted at [multco.us/woodsmokestatus](#). This is the second wood-burning restriction this month – also called a red day – and the seventh since the Multnomah County Board of

Commissioners extended [the County's wood smoke curtailment ordinance](#) year-round in February 2022. Protect your health and reduce pollution indoors by turning on your air filter or learn how to build one. Visit multco.us/wildfiresmoke to learn more.

Episode 44F Rwanda and Utah, steps forward toward clean air.

In Rwanda, one step forward for clean air. Rwanda's health and forests need a clean break with cook stoves. The leader of *the Sustainable Growth team at the United Nations Development Team Rwanda* wrote an article about how to do this. He is an expert on environmental sustainability and climate solutions. He wrote, "Rwanda should aim to fully phase out the use of wood and charcoal for energy by the end of the decade. I recently led the launch of a green [project to restore 263,000 hectares](#) of damaged forests and biodiversity in the MAYAGA region. Even as Rwanda replants trees, more forests are felled for fuel. It is as if we are giving a patient blood infusion in their right arm, while they bleed from their left. This outcome is not inevitable. According to the National Strategy for Transformation (2017-2024), more than 83.3% of households in 2014 were dependent on firewood as a source of energy for cooking. Rwanda aims to reduce the percentage of households using wood fuel and charcoal for cooking from [83.3% in 2014 to 42% in 2024](#). But this effort is stalling. We need to be more ambitious. Rather than gradually reducing dependence on forests for fuel, Rwanda should aim to fully phase out the use of wood and charcoal for energy by the end of the decade. This would inspire innovative action and more rapidly position Rwanda as a middle-income, climate-resilient and low-carbon economy by 2035. It would also save lives. Currently, [some 1.9 million out of 2.41 million](#) Rwandan households use wood and charcoal for cooking, creating a dispersed but massive problem of indoor air pollution. Indoor air pollution is so damaging to health that in 2004 the World Health Organization labeled it the "Killer in the Kitchen." Globally, [it causes more than 4 million premature deaths every year—50 percent of which are children under the age of 5](#). Close to half of deaths due to pneumonia among children under 5 years of age are caused by soot inhaled from household air pollution. Clearly, we have good reasons to end the use of firewood and charcoal for cooking, and strategies have been tested to promote the shift to low-carbon energy sources. Energy-efficient cooking stoves, the use of Liquefied Petroleum gas (L P G) and of biogas have all been tested in urban and rural areas of this country of one thousand hills. But these proposed solutions have been constrained by cost, availability, and acceptability. For instance, 6kg of Liquefied Petroleum Gas (L P G)—the minimum cylinder size available on the market—costs RWF 6,000. This is three times as much as many Rwandans earn in a day, and 60 times more than they would spend on a daily purchase of charcoal for cooking. We have had more success with biogas—but mainly in large-group settings like prisons and schools. As of 2018, [all of the nation's prisons](#) were using biogas from latrines for cooking. Unfortunately, it has been a less viable solution for rural households that cannot afford maintenance cost. The main solution promoted for household use, has been more energy-efficient cook stoves, which has attracted millions of dollars from donor funding. The World Bank's [largest clean cooking operation in Africa](#) is in Rwanda. While this approach may gradually reduce dependence on firewood, it does not end the destruction of Rwanda's forests. Households have hesitated to embrace it—not only in Rwanda but [globally as well](#). To center policy on a half-way measure when total transformation is needed will only prolong the agony of the patient. It is time to move on from partial solutions to accelerating a fundamental shift to alternative energy sources. Government agencies, private companies, and donors need to rigorously investigate and scale up alternative energy sources. Promising alternatives include: Transformation of municipal waste into clean cooking energy, The ecologically sound production of biofuel crops such as maize, sugarcane and cassava, Capture of methane gas from the waters of Rwanda's many lakes, including Lake Kivu, Expansion of biogas use in large group settings such as schools and hospitals. Make a clean break with households' use of firewood and charcoal by 2030."

In Utah, one step forward for clean air. On October 17, 2022 a Program which helps Utahns convert wood-burning fireplaces and stoves to gas was publicized. As reported from Cache County, Utah, a new state program will help Utahns convert their wood-burning fireplace or stove to gas. The Utah Department of Environmental Quality's Division of Air Quality (D A Q) created the program to help eligible Utahns cover the cost of converting their stoves or fireplaces. The [Wood Stove and Fireplace Conversion Assistance Program](#) could cover up to 95% of those costs. An application for the Wood Stove and Fireplace Conversion Assistance Program became available Monday morning to Cache County residents. Residents have until 10 p.m. Tuesday to fill out the application. For those in Box Elder, Davis, Salt Lake County, and Weber counties, an application period will open on Nov. 7, 2022 and another will open on Feb. 6, 2023. Why does the program exist? An environmental scientist with the Division of Air Quality (D A Q) said the program was created "in order to reduce wintertime emissions from wood-burning, which is a significant source of particulate matter in the wintertime." The D A Q said the program is aimed at counties with poor wintertime air quality. "It's beneficial for those

individuals who want to clear up the air quality, as well as clear up the air quality in their homes,” the environmental scientist said. Who qualifies? People in Cache, Box Elder, Davis, Salt Lake County and Weber counties are eligible for the program. Only people with houses that rely on wood burning as their primary or secondary source of heat qualify for the program. A secondary source means that wood-burning provides a “substantial” amount of home heating every winter. The conversion is not available for people remodeling their homes and is not available to anyone outside of the listed counties.