

Episode 56MR December 8, 2023. US PM2.5 limit benefits. PurpleAir & wood burning PM2.5, African women & climate. United Kingdom BBC Millions die each year because of their (wood burning) stoves 12/7/2023. Cooking is killing. <https://www.bbc.co.uk/sounds/play/w3ct4v7r> RAWSEP reminds the opinion writer below: Wood burning emits more PM2.5 and CO2 than coal burning. Therefore replacing coal burning industrial plants with wood burning industrial plants increases PM2.5 emitted in the United States. United States, Washington DC, The Hill. [Less soot benefits our health and economy. The EPA should take action. | The Hill](#) December 7, 2023.. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. The opinion writer is the incoming dean of the faculty at the Harvard School of Public Health and chair of Environmental Health Sciences at Columbia School of Public Health. The author writes: The standards currently stipulate that outdoor air should have no more than 12 micrograms of PM 2.5 pollutants per cubic meter. Any day now, the Environmental Protection Agency is expected to announce tougher standards to limit PM2.5 from wood-burning stoves. Less soot benefits our health and economy. The business community is fighting hard to weaken the regulations. The National Manufacturing Association blitzed D.C. airwaves last month with a [TV ad](#) claiming that tougher standards would restrict growth. The U.S. Chamber of Commerce argues that the rule would have “[profound impacts](#) economy-wide.” The pollutants the EPA seeks to clean up are highly dangerous to our health. And the economic burden caused by failing to tighten regulation far [outstrips](#) the potential adverse impact of tougher standards. Let’s consider Dementia. Air pollution is [strongly linked](#) to cognitive decline. Numerous studies of both [long-term](#) and [short-term](#) exposure to pollutants have found a significant impact on cognition, especially among [older adults](#). The [most dangerous](#) pollutants for human health are PM2.5, and exposure to PM2.5 causes [accelerated cognitive decline](#), including the development of [Alzheimer’s disease](#). In 2020, the Lancet Commission listed air pollution as one of [12 modifiable risk factors](#) for dementia. The key word there is “modifiable” — because pollution is not inevitable, and evidence-based policy can dramatically [reduce the risk](#) of cognitive damage. the EPA’s proposed updates to the National Ambient Air Quality Standards. The standards currently stipulate that outdoor air should have no more than 12 micrograms of PM 2.5 pollutants per cubic meter. The EPA is considering [lowering that threshold](#) to anywhere from 8 to 11 micrograms per cubic meter. Adopting a threshold at the lower end of that range, 8 micrograms per cubic meter, a bolder and more protective standard — would yield enormous benefits. A large study of older women across multiple cities in the U.S. found that cutting their exposure to PM 2.5 pollution over a decade [cut their risk of dementia by 14 percent](#). A similar study in France, also published last year, corroborated those findings, calculating that cleaner air led to a [15 percent reduction](#) in dementia risk. [another recent U.S. study](#) followed more than 2,200 older women for two decades. Across the U.S., caring for people with dementia [costs the nation](#) \$345 billion a year. In addition, more than [11 million Americans](#) look after loved ones with dementia, a wealth of scientific data links exposure to PM2.5 to [heart attacks, strokes, asthma attacks, preterm births, bone fractures, chronic lung disease](#), and myriad other [serious diseases](#). United States, propane rather than wood burning for home heating. [Efficient Ways to Warm Your Home - StreetInsider](#). They provide 5-6 times the heating capacity of an electric fireplace and emit less soot and other air-polluting emissions than wood-burning fireplaces. A propane-powered furnace has a 50% longer lifespan than an electric heat pump, reducing its overall lifetime costs to a homeowner. Energy Star-qualified propane furnaces can save up to \$75 in energy costs each year and are 15% more efficient than standard propane models. RAWSEP View: 2045 as the date for phase out of all wood burning is unrealistically slow, but that end date is the current policy in this region of Australia. RAWSEP’s View is that burning better is no substitute for eliminating wood burning entirely, in terms of protecting human health and protecting the environment. Australia, Australian Capital Territory (ACT). Riotact. [Wood heater smoke causes up to 63 avoidable deaths per year in the ACT, researchers say](#). Riotact. wood-fired heaters and phasing out existing units. However, the ACT “Burning better will not only reduce smoke from your wood heaters, but. Wood heater smoke causes up to 63 [avoidable](#) deaths per year in the ACT, researchers say. An estimated 43 to 63 deaths per year in colder years and 26 to 36 deaths per year in milder years were attributable to wood heater smoke. Wood heater smoke causes up to 63 avoidable deaths per year in the ACT, researchers say. The Australian Capital Territory houses Canberra, Australia’s capital, built between Sydney and Melbourne in the early 20th century. The federal district’s forest, farmland and nature reserves earn Canberra its nickname, the “Bush Capital.” The city’s focal point is Lake Burley Griffin, filled with sailboats and kayaks. On opposite shores are the grand Australian War Memorial and the massive, strikingly modern Parliament House. December 7, 2023. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. An estimated 43 to 63 deaths per year in colder years and 26 to 36 deaths per year in milder years were attributable to wood heater smoke. Smoke from wood heaters causes as many as 63 avoidable deaths per year in the ACT and has a similar impact to the extreme smoke of the 2019-20 Black Summer



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“Everyone needs to know this is not just about climate, polar bears and glaciers. This is about my lungs and your lungs.”

—Dr Maria Neira, Director, WHO.

bushfires, researchers have found by an ANU-led research network said “action should not be delayed” in banning new wood-fired heaters and phasing out existing units. However, the ACT Government is still holding firm on its planned phase-out date of 2045. “The consequence of current wood heater use in the ACT is 11 to 63 avoidable deaths, equivalent to \$57 to 333 million in the annual cost of deaths, comparable with the 31 deaths in the ACT attributable to the bushfire smoke during the Black Summer of 2019-20,” the researchers said. The researchers assessed fine particulate matter (PM2.5) levels in three stations – Monash, Florey and Civic – over the periods of 2016-18, 2021 and 2022 and cross-referenced this with published health statistics to estimate the number of deaths and the associated cost of deaths attributable to wood heater smoke. Using the most conservative exposure-response function, the estimated annual deaths attributable to wood heater smoke were 17 to 26 during the colder three years and 11 to 15 deaths during the milder two years. Using the least conservative exposure-response function, an estimated 43 to 63 deaths per year in colder years and 26 to 36 deaths per year in milder years were attributable to wood heater smoke. “The estimated contribution of wood heaters to ambient PM2.5 pollution and its impact on public health has caused concern in the ACT,” the paper said. The researchers said wood heaters have long been recognised as major sources of pollution in the ACT, particularly in areas such as the Tuggeranong Valley, where air stagnates in winter and wood heaters are particularly numerous. They also noted that there is no safe exposure to PM2.5 pollution, so reducing exposure to wood heater smoke, even from levels below current particulate air pollution standards, can have substantial health benefits. Wood heaters are already banned in some suburbs, but they are still used in about 11 per cent of occupied private dwellings in the ACT, according to 2022 estimates. In August, the ACT Government announced it was endorsing a phase-out of wood heaters in all suburbs, but this would be a gradual transition. Ms Vassarotti said. “The 2045 phase-out date was chosen in line with the ACT Government’s pathway to electrification to transition away from fossil fuel gas. As new evidence and technologies emerge, the government’s approach will respond accordingly. As Minister for the Environment, I am open to investigating how we support the community to transition faster.” Ms Vassarotti said the ACT Government has started work on a new bushfire, smoke and air quality strategy since its decision to phase out wood heaters, and there will be more announced on how this will work in the new year. *Other advice on wood fire heaters in the ACT can be found on the*

[ACT Government website](#). [Wood heater smoke causes up to 63 avoidable deaths per year in the ACT, researchers say](#) Riotact. PurpleAir Newsletter. [https://www2.purpleair.com/blogs/blog-home/why-wood-burning-is-dangerous-to-you-to-the-environment?\\_pos=5&\\_sid=1ab1e4045&\\_ss=r](https://www2.purpleair.com/blogs/blog-home/why-wood-burning-is-dangerous-to-you-to-the-environment?_pos=5&_sid=1ab1e4045&_ss=r) Why Wood Burning is Dangerous to You & to the Environment. January 02, 2023.

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. wood burning poses a serious threat to your health. Even worse, it also contributes to poor air quality all around you. we’re talking about the practice of burning wood for fuel and heat. Examples of these are: Fireplaces Woodburning stoves Old heating systems Campfires The Institute for Public Policy Research (IPPR) reports that [1.9 million homes](#) in the United Kingdom (UK) alone use wood and other solid fuels. Meanwhile, the UK government data states that [175,000 wood burner stoves](#) are sold annually. 4 reasons why wood burning is so dangerous: 1. It releases Particulate Matter. According to the [UK government data](#) domestic wood burning accounts for 17% of the [PM2.5 emissions](#) and 10% of PM10 emissions in 2020. In a separate study, they stated that wood burning in homes produced [3 times more particulate matter than road traffic](#). And it’s only going to get worse as activity has been increasing [by 3% since 2003](#). 2. It’s harmful to the environment. Because wood burning emits particulate matter, it is also one of the leading causes of [air pollution](#). In fact, the Clean Air Strategy Report by the UK government found that wood in open fires, furnaces, and [stoves accounts for 38%](#) of the country’s outdoor tiny particle air pollution. Furthermore, the [North Carolina Coastal Federation](#) explains that when you burn seasoned or treated wood, it releases “fly ash.” burning wood triples [indoor air pollution](#) inside homes and the health risk. wood burning stoves cause [43% of people’s exposure](#) to cancer-causing chemicals. 4. Countries without gas access must use worse fuel. we can hope there will be more access to natural gas to stop woodburning or the use of coal. HOW CAN YOU PROTECT YOURSELF. Use safer, ecological alternatives to wood burning like natural gas, solar, or wind power. Sign petitions to stop wood burning in your community. Appeal to local officials to implement laws that mitigate wood burning. Invest in Air Quality Monitors to know the levels of particulate matter around you. Install Air Filters at home to trap some of the pollutants caused by burning wood. At the end of the day, one of the best ways to limit the harmful effects of a wood fire is by being aware of the air quality around you. With air monitoring devices like PurpleAir, you can accurately measure the PM2.5 in your area and make informed decisions on how to keep yourself safe. Worried about air quality? Monitor the Particulate Matter levels around the world with our free, real-time [PurpleAir Map](#) or join PurpleAir’s mission to make air quality data accessible to everyone by investing in an [air quality monitor](#) for your home. Together, we can be informed and make changes in our daily habits and the community to improve air quality. RAWSEP



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## The Food Chain - How to stop cooking killing - BBC Sounds

Millions die each year because of their stoves, so what's being done about it?



View: The strength of using a PurpleAir PM2.5 monitor when it is placed in the yard of a near neighbor of an indoor wood burner, the PM2.5 levels above U S E P A NAAQS limits can be measured. That is because a PM2.5 monitor has to be placed hyper-locally to catch the emissions from a nearby pollution source, and because the emissions reading on the PM2.5 monitor can be double checked with visual readings from a Ring Camera pointed at the roof and smokestack area of the home of an indoor residential wood burner, with the Ring camera pointed at the roof only, avoiding any invasion of privacy by filming the human activity of the wood burning neighbor. This foray, below, in the newsletter of the PurpleAir company describing transboundary incursions of PM2.5 between countries therefore is not directly relevant to the aim of Residents Against Wood Smoke Emission Particulates, because it does not directly describe the effects on neighborhoods and near neighbors of indoor residential wood burning. However, when this PurpleAir article very briefly describes the health effects and cumulative environmental effects of indoor residential wood burning PM2.5 emissions, this article is relevant to RAWSEP's aims of education of the general public about the harmful health and environmental effects of indoor residential wood burning, because each indoor residential wood stove contributes to the cumulative pollution levels within the entire world. It is just impossible to pinpoint scientifically, with percentage of levels above NAAQS collected over a 3 day period, the source of each particular source of pollution unless the PurpleAir PM2.5 monitor is located nearby an indoor residential wood burner. The question answered, with examples, in this article is What is transboundary pollution? The suggestions for combatting Transboundary Pollution in this article are 1) Reduce Your Carbon Footprint and Support Clean Energy 2) Make Eco-Friendly Choices 3) Advocate for Sustainable Practices 4) Plant Trees and Raise Awareness 5) Properly Dispose of Hazardous Waste and 6) Reduce Water Usage. RAWSEP View is that neighborhood tree planting is no substitute for stopping indoor residential wood burning, and indeed it may even be intended as a form of greenwashing. RAWSEP could see the cynical use of tree planting by indoor wood stove manufacturers and retailers to obscure the source of air pollution that must be eliminated, one stove by one stove if necessary, indoor residential wood burning using the appliances lobbied for by the indoor residential wood manufacturers and retailers, who may participate in tree planting ceremonies to obscure the pollution at the source, the products they sell in their harmful trade. The unscientific idea of Carbon Neutrality has been used for the last 35 years to justify selling wood stoves certified as "safe" which are scientifically proven to be unsafe both to human health and to the environment. Carbon Neutrality, a political not scientific construct says that if a tree is replaced for a tree that is burned, the net carbon pollution will be zero or neutral to human health and to the environment. Actually Carbon Neutrality does not mention human health, but does erroneously state that the net effect of burning wood is zero carbon or neutral carbon in the air. This is scientifically untrue. So planting a tree in place of a burned tree has been used as greenwashing. Don't burn wood to begin with. Planting trees does not negate pollution. Planting trees produces oxygen, but just don't cut down and burn trees to begin with. Indoor residential wood burning manufacturers who plant trees do not negate the harm of indoor residential wood burning. PurpleAir Asks What if your neighbor's air pollution is bad (not referring to indoor residential wood burning) What is Transboundary Air Pollution? December 07, 2023. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. [Particulate Matter \(PM\)](#), and substances from industrial facilities, power plants, or vehicles in one region travel long distances by wind. poor air quality can be [harmful to our respiratory system](#) and our ecosystem as a whole. airborne contaminants from Mexico and Canada can cross borders and [affect the United States](#). the [Environmental Protection Agency \(EPA\)](#) is actively engaged in efforts to comprehend and minimize the impact of air pollution originating outside the country for better citizen health and environmental quality. Another example is a [study on transboundary air pollution](#) that examined two instances of [fine particulate matter \(PM2.5\) pollution](#) in Ho Chi Minh City, Vietnam, for a year. [pollutants drifting in from India and China](#).. HOW TO COMBAT TRANSBOUNDARY POLLUTION #1 - Reduce Your Carbon Footprint and Support Clean Energy. use public transportation, carpooling, biking, or walking instead of driving alone. support clean energy sources like wind, solar, and hydroelectric power to [significantly reduce harmful emissions](#), which are a major contributor to transboundary air pollution. [Even small things like avoiding wood burning can also improve air quality](#). #2 - Make Eco-Friendly Choices to [minimize the release of harmful chemicals](#) use biodegradable cleaning products participate in recycling #3 - Advocate for Sustainable Practices purchase locally grown, organic food. advocate for alternatives to [harmful pesticides](#) #4 - Plant Trees and Raise Awareness [Planting trees and vegetation](#) can be a simple yet effective way to combat transboundary air pollution. Trees absorb carbon dioxide and release oxygen, helping to purify the air and combat climate change, a major driver of transboundary air pollution. #5 - Properly Dispose of Hazardous Waste to [prevent contamination of the air and soil](#). #6 - Reduce Water Usage [minimize the energy required](#) for water treatment WORRIED ABOUT AIR QUALITY? Monitor the Particulate Matter levels around the world with our free, real-time [PurpleAir Map](#), or join PurpleAir's mission to make air quality data accessible to everyone by investing in an [air quality monitor](#) for your home. Together, we can be informed



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and make changes in our daily habits and the community to improve air quality. Africa. TURNING POINTS: GUEST ESSAY Women Are Coming Africa is in danger of becoming the epicenter of the climate crisis, but the continent also holds the potential to fight it. Ms. Mathai is an activist and environmentalist. December 6, 2023. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. a series called [Turning Points](#), in [series page](#). Turning Point: June, July and August 2023 were all the warmest on record, after a [new report warned](#) this year, 2023, a living symbol of a legacy — [Professor Mícere Gĩthae Mũgo](#) — died at age 80. The [Chipko activists of India](#), who held onto trees to protect them from the bulldozers of government-run logging operations; the Argentine and Chilean citizens who protested for years against the authoritarian regimes that “disappeared” their family members in the 1970s and 1980s; the [mothers of political prisoners](#) who protested the torture of their sons in basement detention facilities in Nairobi, Kenya, in 1992. Wangari Maathai was a leader of that struggle. The finance and investment needed to ensure a just transition in the energy sector, especially for Africa and other [climate-vulnerable countries](#), Christiana Figueres, [wrote recently](#) the oil and gas industry had only been “paying lip service to change.” the young women leaders of Fridays For Future: Elizabeth Wathuti, Greta Thunberg, Vanessa Nakate, rally to counter untruths in the climate campaign. Hafsat Abiola, Pat Mitchell, Ronda Carnegie and Mary Robinson, the former president of the Republic of Ireland, are the inspiration behind [Project Dandelion](#), pushing public narratives about climate change to confront the truth about who isn’t taking action. the [African Forest Landscape Restoration Initiative](#) and [Restore Local](#), aims to accelerate the restoration of degraded lands throughout Africa. Women like the three founders of Exotic-EPZ in Nairobi, who are processing macadamia nuts from 7,000 farmers across Kenya to sell them around the world. my mother undertook with the [Green Belt Movement](#):. Like the women of Kenya, India and Argentina, Africa has enormous potential: a vibrant, young population and an abundance of resources, whether solar or minerals. We must persist. I always say that the burden is on those who know. We are the ones who must take action.” as Professor Mũgo would remind us: “Women are coming.” California, Butte County. [People in Butte County can breathe easier | News | actionnewsnow.com](#) For many years, older wood stoves pumped out smoke with particulate matter that would fill the air with smoke, especially during cold winter nights. California, Sacramento. [Why is air quality so bad in Sacramento in the winter? Here's what experts say](#) The Sacramento Bee. Zhang said ozone levels are calculated hourly and the amount of particulate matter with a diameter of 2.5 micrometers or smaller, known as PM 2.5, is. During the winter months, wood burning contributes about 50% of air pollution, Allshouse said. What is Check Before You Burn? To combat air. Poor air quality in California's Sacramento Valley in winter is caused by cool air that traps pollution. Burning wood fires are restricted. California, Ventura County. [Ventura County Air Pollution Control District awarding residents up to \\$5,000 to switch to](#) KEYT Smoke from burning wood contains major air pollutants including carbon monoxide and nitrogen oxides, polycyclic aromatic hydrocarbons, fine. Louisiana, New Orleans. [Man dies from unattended cooking fire in Madisonville | wwltv.com](#) Don't overfill fireplaces/wood-burning stoves and ensure proper ventilation. • Do not leave candles/open flames (or space heaters) unattended. Firefighters said someone in the neighborhood reported seeing smoke • Don't overfill fireplaces/wood-burning stoves and ensure proper ventilation. Mississippi, Simpson County, Magee. [Opinion: Another one bites the dust | Magee Courier-Simpson County News](#) The poor don't burn manufactured wood pellets though. They're too expensive. They're burned by the rich in rich countries - who can afford to believe. United Kingdom, England. Longon. Climate advocate criticized for burning wood. [Climate expert gets death threats after post about pub's log fire goes viral - Yahoo News UK](#) Dr Thomas Smith received abuse after accusing a pub of illegally burning wood on an open fire in west London and emitting smoke from a chimney. Thailand. [Thailand's government sends out alert on PM 2.5 risk - Vietnam Plus](#) Thailand's Interior Ministry has ordered provincial authorities to immediately implement preventive measures against fine particulate matter (PM2.5)



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