

Episode 54 K a

Episode 54K March 3, 2023, Residents Against Wood Smoke Emission Particulates (RAWSEP) News and U R L's

<https://rawsepresidents.wordpress.com/1-march-2023-rawsepresidents-pdfs-of-news-posts/> rawsep residents dot wordpress dot com front slash 1 hyphen March hyphen 2023 hyphen rawsepresidents hyphen pdfs hyphen of hyphen news hyphen posts front slash. PDF List of U R L's Episode 54 SCROLL DOWN to SEE PDFs PDFs available for download, in order to search using U R L's ONLINE for entire news articles for Residents Against Wood Smoke Emission Particulates or just to read the PDF and click on the U R L's of articles.

Episode 54j March 1, 2023, White House Environmental Justice Advisory Committee (WHEJAC) unanimously votes to send letter to Environmental Protection Agency urging adoption of lower Particulate Matter of 2.5 micrometer size (PM2.5) safe limits.

At the March 1, 2023, White House Environmental Justice Advisory Council (WHEJAC) Hearing, there was a unanimous vote of the Council Members to have a WHEJAC Committee draft a letter to the Environmental Protection Agency urging adoption of lower Particulate Matter of 2.5 micrometer size (PM2.5) safe limits. The Council member who suggested this action based on concerns expressed by commenters to WHEJAC, was Tom Cormons, Executive Director of Appalachian Voices, in Charlottesville, Virginia.

What follows is the comment (submitted in writing, but not given comment time at the meeting, where 25 commenters were given time to speak) about the Commenter's Two Resolutions submitted March 1, 2023 to Wisconsin Conservation Congress. Many commenters at the WHEJAC hearing spoke against the practice of greenwashing C C U S by funding businesses which say they can provide Carbon Capture (Carbon Capture, Utilization and Storage whose acronym is C C U S), rather than ending carbon (including PM2.5) pollution BEFORE carbon is emitted.

Good Afternoon WHEJAC Council Members,

My affiliation is Residents Against Wood Smoke Emission Particulates (RAWSEPresidents.wordpress.com)

I submitted two resolutions to the Wisconsin Conservation Congress today, which explain the Environmental Justice issue happening in my backyard, my hyper-localized but real backyard. My house is assessed at half the assessment of my wood burning, PM2.5 emitting neighbor's house, which proves I am low income. My recommendations to the Council are included in the two resolutions. Saying wood burning is Carbon Neutral is an example of greenwashing. Regarding WHEJAC Council Member Tom Cormon's suggestion that WHEJAC send a letter to the E P A, I commented to the E P A on February 23, 2023, at their hearing, and also sent written comments. I recommended the U S E P A limit be changed to 8 micrograms per meter cubed annually and 25 micrograms per meter cubed daily, to be nearer the World Health Organization limit of 5 micrograms per meter cubed annually.

March 1, 2023, To the Wisconsin Conservation Congress

Resolution 1

Wisconsin government should provide citizen-scientist residents 2.5 micrometer Particulate Matter PM2.5 air quality monitors to end residential wood burning, which emits excessive hyper-localized PM 2.5 health harm to near neighbors. (requires legislation)

Would you support legislative action to provide citizen-scientist residents 2.5 micrometer Particulate Matter (PM2.5) Purpleair monitors to end residential wood burning, which emits excessive hyper-localized PM 2.5 harm to health of near neighbors? (requires legislation)

PurpleAir PM2.5 monitors cost less than \$300, with data put on United States (US) Airnow Smoke and Fire maps. In 2020, US Scientists wrote a letter to the US Congress warning against declaring wood burning Carbon Neutral. PM2.5 is Particulate Matter of 2.5 micrometer size. Wood Smoke is 90 percent PM2.5. Since hyper-localized PM2.5 PurpleAir website data is available to the general public and government officials 24/ 7, weekend and overnight readings from yards of near neighbors can be downloaded by government officials during normal working hours, with no need to enter residences to shut down residential wood burning. Residential wood burning in U S certified wood stoves emit 450 times PM 2.5 as natural gas furnaces.

Resolution 2

Wisconsin government should use citizen-scientist online data of PM2.5 residential wood burning emissions from hyper-localized Purpleair monitors to enforce ordinance or law to shut down residential wood burning for neighbor health. (requires legislation)

Would you support legislative action to use citizen-scientist PM2.5 residential wood burning emissions online data using hyper-localized Purpleair monitors to enforce ordinances or laws to shut down residential wood burning for health of neighbors? (requires legislation)

PurpleAir PM2.5 monitors cost less than \$300, with data put on United States (US) Airnow Smoke and Fire maps. In 2020, US Scientists wrote a letter to the US Congress warning against declaring wood burning Carbon Neutral. PM2.5 is Particulate Matter of 2.5 micrometer size. Wood Smoke is 90 percent PM2.5. Since hyper-localized PM2.5 PurpleAir website data is available to the general public and government officials 24/7, weekend and overnight readings from yards of near neighbors can be downloaded by government officials during normal working hours, with no need to enter residences to shut down residential wood burning. Residential wood burning in U S certified wood stoves emit 450 times PM 2.5 as natural gas furnaces.

Background for both Resolutions In 2020, United States (US) Scientists wrote a letter to the U S Congress warning against declaring wood burning Carbon Neutral. Wood burning emits more PM2.5 than coal burning. PM2.5 is Particulate Matter of 2.5 micrometer size. Wood smoke is 90% PM2.5. PM2.5 is the perfect size to infiltrate the human lung, producing a cascade of human health problems and early deaths. Residential heat from solar, wind, and heat pumps that can work at low temperatures in Wisconsin during the winter, produces negligible particulate matter. Residential wood burning in even United Kingdom (UK) Ecodesign certified wood stoves, which are comparable to or less polluting than U S certified wood stoves, produces 450 times the polluting PM 2.5 as residential natural gas furnaces. This is shown by resident-owned PM 2.5 monitors of near neighbors of residential wood burners. U S Environmental Protection Agency (E P A) certification of wood stoves has been a failure in containing PM2.5 pollution. Hyper-localized Purpleair PM2.5 data, also shared on U S Airnow Smoke and Fire maps, is seen by the general public and government officials 24/7, allowing weekend and overnight data downloads from near neighbors' yards in normal working hours, with no need to enter residences to shut down residential wood burning. If U S E P A PM2.5 limits change to 8 micrograms per meter cubed annually and 25 micrograms per meter cubed daily, as expected, in 2023 PM2.5 polluting limits of residential wood stove use will be redefined. The European Union (E U) in 2022 stopped most subsidies for wood burning. In the U K 8% of residents burn wood but produce more PM2.5 in London and other U K areas than traffic. In 2023 the U K London mayor approved regulations of new and refurbished homes in London that effectively regulate wood stoves out of residential use, a movement to regulate PM2.5 from residential wood burning across the UK. Research papers show harmful effects of wood smoke PM2.5 on lungs, heart, and brain.

#### OPTIONAL SUPPORTING DATA

Residents Against Wood Smoke Emission Particulates (RAWSEPresidents) website & Facebook. Type RAWSEPresidents.wordpress.com into a search box to find website with weekly lists of URLs of research and news. RAWSEPresidents has 10 minute Youtube and Tiktok videos and 30 minute Spotify and Podbean podcasts, news health effects of wood smoke and on progress in shutting down world residential wood burning, since April 2022. URL <https://news.mongabay.com/2020/05/scientists-warn-congress-against-declaring-biomass-burning-carbon-neutral/> Scientists warn U.S. Congress against declaring biomass burning carbon neutral May 13, 2020 in Mongabay URL Episode 54 K b

Optional Supporting Data for Wisconsin Conservation Congress resolutions (continued footnote 2 of 2)

Wood burners given the chop in new London homes as Sadiq Khan cracks down on pollution Wood burners are directly linked to air particle pollution, which is associated with around 29,000 attributable deaths annually in Britain. February 9, 2023.

<https://www.express.co.uk/news/science/1732748/wood-burner-london-sadiq-khan-air-pollution-ban-planning-guidance>

Youtube recordings of EPA Testimony about PM2.5 on 2/21/2023, 2/22/2023 and 2/23/2023 CST 10 AM to 6 PM

<https://www.youtube.com/watch?v=s9B5b51z7pY> February 21, 2023, Recording, 8 hours

<https://www.youtube.com/watch?v=crzJ1g8aCKI> February 22, 2023, Recording, 8 hours

<https://www.youtube.com/watch?v=GIfHXXeiVew> February 23, 2023, Recording, 8 hours

#### United States

U S, Environmental Protection Agency (**EPA**) **Hearings** February 21, 22 and 23, 2023 on PM2.5 Particulate standard change from 12 to 8 micrograms per meter cubed (wood smoke is 90% PM2.5)

Bloomberg Law News, Healio, M I T News, Penn Live, Power Engineering, Sierra Sun and Yahoo News mentioned the EPA hearings in their articles.

Over 250 citizens spoke in favor of changing the EPA limit of PM2.5 to 8 micrograms per meter cubed annually and 25 micrograms per meter cubed daily, because of the costs of PM2.5 to human health. A handful of industry spokespersons spoke in favor of keeping the limits at 12 and 35 respectively, because of the cost of regulation to industry.

A RAWSEP representative testified at the hearing on February 23, 2023. The 4 minute testimony was delivered follows, illustrating her remarks with a RAWSEP residents sign and one of her three home air purifiers.

My affiliation is RAWSEP residents, which stands for Residents Against Wood Smoke Emission Particulates.

There are PDFs to download showing the U R L's of News Stories and Research Papers on Wood Smoke Health Effects since April 2022. Type RAWSEPResidents.wordpress in an Online Search box. RAWSEPResidents also has 10 minute Youtube and Tiktok videos, and half hour Spotify and Podbean podcasts.

Please change the annual limit for Particulate Matter of 2.5 micrometer size (PM2.5) to 8 micrograms per meter cubed, closer to the World Health Organization standard of 5. Please also change the 24 hour limit to 25 micrograms per meter cubed.

I am a resident of Madison Wisconsin who has lived 60 feet away from a wood burning neighbor for the 18 years I have owned the house I bought for \$84,000, which proves I am low income. Occupants of the house 60 feet away have operated wood burning stoves for all of those 18 years. The Health Department does not shut down indoor wood stoves that pollute.

I routinely breathe more than the current EPA PM2.5 24 Hour limit (more than 35 micrograms per meter cubed) from the wood smoke that enters my yard and infiltrates my home, because I am a near neighbor of these wood burning neighbors. I use three air purifiers in a 672 square foot house. Natural gas lines are connected to the house of the wood burning neighbors. My neighbor turns his natural gas heat down and the wood stove is used for ambience and aesthetic reasons. The wood burning neighbor burns wood as a hobby, and owns a house assessed at twice the assessment of my house. It is often the case that wood burning neighbors are more affluent than their neighbors.

The silver lining to this cloud is that local Governmental funds could be used to give a PurpleAir PM2.5 monitor to any resident of the City of Madison, Wisconsin, who complains that wood smoke from a neighbor is infiltrating their yards and homes. The City of Madison was recently given nearly half a million dollars by the Biden Administration to fight particulate pollution. Weekend and overnight data from a hyper-localized monitor on the online Purpleair Map can be downloaded by the general public and government officials during normal working hours. Residential wood stoves could be shut down, without the need to enter any residence. The \$249 Purpleair monitor I purchased myself proves daily that in my own yard I breathe more than the current EPA healthy limit of PM 2.5. Wood smoke is 90% PM 2.5. Letting this pollution continue if the indoor residential wood stove is certified BY THE MANUFACTURER is an abject failure in containing hyper-localized air pollution that affects the health of near neighbors. PM2.5 is the perfect size to infiltrate the human lung setting off a cascade of human health problems and early deaths.

Residential wood smoke is hyper-localized, created by individuals. Government regulation can require individuals to take personal responsibility and stop burning wood. There should be ordinances against INDOOR residential wood burning. I think my organization has analogies to M A D D Mothers Against Drunk Driving, because of the need to educate about the dangers of continuing both practices, drunk driving and residential wood burning. Indoor residential wood burning, especially in cities, is not a tradition. Biomass burning, mostly wood burning, was enshrined as renewable and given subsidies in only the last FEW DECADES, although scientists object. In London, England PM2.5 emissions from wood burning surpass emissions from vehicles. The United Kingdom's 2015 Government deregulation of wood stove pollution is a major reason for that. A few days ago in England a Guardian poll showed the vast majority of Londoners would like to ban residential wood stoves, and a majority surveyed across England agreed. In 2022 the European Union ended most subsidies for Biomass slash Wood burning.

United States

#### [EPA Watchdog Slams 'Ineffective' Wood Heater Plan in New Report - Bloomberg Law News](#)

Bloomberg Law News

An EPA residential **wood** heater program leaves homes vulnerable to dangerous particulate ... **Burning wood** all day in residential stoves can .

Excerpt

(The U S Office of Inspector General) OIG report claims major flaws in EPA's wood heater program. Watchdog insists the inspection methods allow for pollution. An EPA residential wood heater program leaves homes vulnerable to dangerous particulate matter pollution, according to an independent agency watchdog report released on Tuesday (February 28, 2023). The "ineffective" program—which is supposed to ensure that wood heaters are inspected for safety before reaching consumers—uses flawed testing methods that "put the validity of the certification results" into question, the

Environmental Protection Agency's Office of Inspector General [said](#). "The EPA has approved the use of certification test methods that lack clarity and allow too much flexibility in how emissions testing is conducted," according to the report. Burning wood all day in residential stoves can ...

#### [Breathing is going to get tougher as hotter temps mean more air pollution, says study](#)

Phys.org

**PM2.5** response to GHG-induced warming. a Multi-model mean annual mean **PM2.5** response [ $\mu\text{g m}^{-3}$ ]; b model agreement on the sign of the **PM2.5** ...

#### [Scientists Warn That Breathing Is Going To Get Tougher – Here's Why - SciTechDaily](#)

SciTechDaily

Both organic aerosols and dust, as well as sea salt, black carbon, and sulfate, fall into a category of airborne pollutants known as **PM2.5**, ...

Excerpt

The second-largest contributor to future air pollution: dust from the Saharan desert. "(...) an increase in winds is projected to loft more dust into the atmosphere," As the climate warms, (...) higher levels of dust in Africa, the eastern U.S., and the Caribbean. Dust over Northern Africa, including the Sahel and the Sahara, is likely to increase due to more intense West African monsoons. Both organic aerosols and [dust](#), as well as sea salt, [black carbon](#), and sulfate, fall into a category of airborne pollutants known as  $\text{PM}_{2.5}$ , because they have a diameter of 2.5 micrometers or less. E

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Continuation of excerpt from

#### [Scientists Warn That Breathing Is Going To Get Tougher – Here's Why - SciTechDaily](#)

The increase in naturally sourced  $\text{PM}_{2.5}$  pollution increased (...) in direct proportion to  $\text{CO}_2$  levels. The more we reduce ( $\text{CO}_2$ ), the better the air quality gets," (...) if the climate warms only  $2^\circ\text{C}$ , (...) only a 7% increase in  $\text{PM}_{2.5}$ . All of these results only apply to changes found in air quality over land, as the study is focused on human health impacts.

Alaska

RAWSEP View: Fairbanks would improve its air quality if only ultra-low sulfur diesel was used to fuel furnaces (rather than wood burning, for example) and Fairbanks would improve its air quality if scrubbing technologies were used on electric power plants. Fairbanks residents fighting against air quality regulation are foolishly choosing parsimonious cost cutting over their own health.

#### [Fairbanks must do its part to meet the challenges of today and tomorrow | newsminer.com](#)

Fairbanks Daily News-Miner

Specifically, the EPA announced its intent to reject major portions of the state's **PM 2.5** attainment plan (SIP) and precipitously impose ...

Excerpt

The greater Fairbanks community reached an inflection point on Jan. 10 on the air quality issue. Specifically, the EPA announced its intent to reject major portions of the state's PM 2.5 attainment plan (SIP) and precipitously impose requirements that only ultra-low sulfur diesel may be used to fuel your furnace and that our electric power plants must install ever-more expensive scrubbing technologies on their already clean stacks.

California (alphabetic by publication name)

#### [Structure Fire at the Montecito Fire Station | Edhat](#)

Edhat

Firemen burn wood in a fireplace at their Montecito station? ... stupefying how ignorant people remain regarding **wood burning** and wood smoke.

Excerpts

Preliminary investigation into the cause of the structure fire at Montecito Fire Station 92 on Saturday, February 25, 2023, determined that the fire started in the firebox of the fireplace in the dayroom of the fire station.

Comments

Firemen burn wood in a fireplace at their Montecito station? Or was this a gas fireplace? If using wood, of all people, firemen should know how bad wood smoke is for one's health. It's absolutely stupefying how ignorant people remain regarding wood burning and wood smoke. Who foots the bill for this extensive damage? The taxpayers.

I'm shocked, honestly. Ridiculous and anti-message. And at taxpayer expense! What a mess, what a clown show.

So how old is the station and its infrastructure? Do they have central heating? Were they trying to save on their gas bill?

Danes provide context.

<https://sciencenordic.com/denmark-diseases-pollution/short-term-exposure-to-high-concentrations-of-wood-smoke-has-no-long-term-effect-study/1382225>

Did you read the article? It's based off of one time, 3 hr exposure. Not much of a conclusion compared to hundreds of other studies showing long term exposure to particulate matter such as woodsmoke decreases life expectancy and increases chance of cancer and respiratory illness.

RED CREEK: Or maybe (a reminder to) not burn wood and thereby help maintain better air quality.

My neighbor has fires every night. We have to keep windows shut.

Mine do the same. In the summer it's their fire pit and BBQ. Because of prevailing wind direction, they get the cosy fires and steaks, I get the smoke. Nothing I can do about it except keep my windows shut on that side of the house in the evenings until the wee hours when I get up and set up cross ventilation in my house in the summer. In the winter, they usually don't do it mid-day so I open and close before two or three. I also wear a mask when I blow off my back patio. It gets pollen and soot. The joy of suburbia.

LUVADUCK How horrible to have your neighbors, via their smoke, dictating to you when you can and can't have your windows open or sit out in your own garden.

First, why does the fire station require a fireplace? Is that not a design element not required in a dormitory setting?

[California particle pollution linked to heightened risk of heart attack: study | The Hill](#)

The Hill

They found that exposure to **PM 2.5** at concentrations between 12 and 13.9 micrograms per cubic meter was associated with a 10 percent increased risk of ...

Excerpt

Californians living with long-term exposure to air pollution may experience an increased risk of having a heart attack or dying from heart disease, a new study has found. the biggest threat from such fine particle pollution — emitted by vehicles, smokestacks and fires — typically live in under-resourced communities, [according to the study](#), published on Friday in JAMA Network Open. The risk (...) rose “even when those exposure levels are at or below our current U.S. air quality standards,” (researchers) combed through data from 3.7 million adults who were members of Kaiser Permanent in Northern California from 2007 through 2016 and had lived in the state for at least a year. The researchers (...) tied each person’s address to a specific geographical location, to establish annual average exposure to fine particulate pollution. (Researchers) (...) identified which patients had been diagnosed with a heart attack and which had died from heart or cardiovascular disease. The Environmental Protection Agency’s (E P A) current regulatory standard for (Particulate Matter of 2.5 micrometer size) (PM 2.5) is 12 micrograms per cubic meter on average, annually. (...) between 12 and 13.9 micrograms per cubic meter was associated with a 10 percent increased risk of experiencing a heart attack and a 16 percent increased risk of dying from cardiovascular disease, in comparison to (...) under 8 micrograms per cubic meter. (...) 6 percent increased risk of heart attack and 7 percent increased risk of death from heart disease in adults exposed to PM 2.5 at levels of 10 to 11.9 micrograms per cubic meter, again compared to exposures under 8 micrograms per cubic meter. (In January 2023) the EPA [released a proposal](#) to reduce the annual PM 2.5 standard to between 9 and 10 micrograms per cubic meter, stressing that current regulations did not meet Clean Air Act public health guidelines, the (researchers) noted. (,,,) heightened risk of heart attacks persisted even at concentrations of 8 to 9.9 micrograms per cubic meter, (so researchers) suggested that the new standard be decreased to 8 micrograms per cubic meter.

California, Ukiah

[Home catches fire in Potter Valley Thursday - The Ukiah Daily Journal](#)

The Ukiah Daily Journal



A fire caused by a **wood-burning** stove burned one floor of a home Thursday afternoon, the Potter Valley Fire Department reported. PVFD Capt.

Excerpt

A fire caused by a wood-burning stove burned one floor of a home Thursday afternoon, the Potter Valley Fire Department reported. crews were dispatched to the fire (...) and the second-story duplex was “fully-involved” in flames by the time firefighters arrived.

Florida, Daytona

RAWSEP View: Burning Man comes to Florida in the form of a motorcycle. Wood burning pollutes with PM2.5

[Burning Bike: Big \*\*wooden\*\* motorcycle to ceremoniously go down in flames during Bike Week](#)

Daytona Beach News-Journal

**Burning** Bike is scheduled for the night of March 10 during Bike Week. The massive **wooden** bike will be on display at the fairgrounds starting March ...

Excerpt

pose for pictures and sign the GIANT wooden motorcycle sculpture before it goes up in flames. The annual Burning Bike continues a tradition that started long ago in the spirit of a lifestyle that so many bikers hold dear.

Illinois, Alton

[Fire claims Cottage Hills home - Alton Telegraph](#)

Alton Telegraph

... in flames that leapt 40 feet in the air from where the roof had burned away. ... pointed to the fire starting in or near a **wood-burning** stove.

Excerpt

Firefighters from four local departments fought in vain early Friday to save a house (...) in Cottage Hills. Cottage Hills firefighters received the call at 3:45 a.m. Firefighters (found) the house fully engulfed in flames that leapt 40 feet in the air from where the roof had burned away. The sole resident escaped the blaze, but the house was completely destroyed. An initial investigation reportedly pointed to the fire starting in or near a wood-burning stove. Firefighters tore down a chain-link fence in front of the house to allow better access to the fire. Firefighters remained on the scene for more than three hours. No injuries were reported.

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Michigan

Michigan, Ann Arbor area, Dexter

[Dexter firefighters save cat from house fire caused by \*\*wood-burning\*\* stove - mlive.com](#)

MLive.com

“If you're using a **wood burning** stove or something you don't use very often, make sure the chimney's been cleaned,” said Dexter fire Lt. Michael ...

Excerpt

Dexter firefighters were able to save one cat from a house fire started by a wood-burning stove on Thursday evening. a call around 7:20 p.m. in Dexter Township. The fire was primarily contained to one room, although the rest of the home sustained smoke damage, fire officials said. There was also damage to the exterior of the home. No one was home at the time other than two cats, one of which died. The other was saved using a pet oxygen mask. The fire, extinguished by 9:30 p.m. the same evening, is believed to have been caused by an unattended wood burning stove being used to heat the home during an ongoing power outage.

New Hampshire, Concord

RAWSEP View: No mention is made of the smoke and pollution from burning wood, in this article.

### [From the farm: How the Amish live without electricity - Concord Monitor](#)

Concord Monitor

The house, always warm, was heated by a central **wood-burning** cooking stove. We were astonished at the uniform heat. The house had no cold spots, ...

Excerpt

The house, (...) was heated by a central wood-burning cooking stove. the stove ran all day on a few armfuls of wood. The stove also heated water for the shower. Sarah filled a bucket with hot water (...) Then she poured the warm water into a bucket hanging in the shower. I turned the handle on the shower bucket and gravity did the work.

New York

RAWSEP View: There is an Odisha in the Country of India.

### [Long-term PM 2.5 exposure linked to increased heart attack risk | News Room Odisha](#)

Breaking News-Newsroom Odisha

Excerpt

Long-term exposure to air pollution, particularly particulate matter (PM) 2.5, has been linked with an increased risk of heart attack and other cardiovascular diseases, according to a new study. In a diverse cohort of 3.7 million adults in California, the study published in Jama Network Open found that long-term PM 2.5 exposure was associated with an increased risk of incident acute myocardial infarction (AMI), ischemic heart disease mortality, and cardiovascular disease mortality. These associations were more pronounced in low socioeconomic status communities. The results add to the growing evidence that long-term PM 2.5 exposure is associated with increased risk of cardiovascular events and current regulatory standards of PM 2.5 are not sufficiently protective.

**Wisconsin**

### **Resolutions to the Wisconsin Conservation Congress were due March 1, 2023**

Canada

Canada, British Columbia, Cowichan Valley

### [Letter: \*\*Wood smoke\*\* worse than car emissions, but let's reduce both](#)

Cowichan Valley Citizen

Both vehicle exhaust and **wood smoke** are harmful to our health – especially in places like the Cowichan Valley, where inversion layers can hold ...

Excerpt

**Wood smoke worse than car emissions, but let's reduce both.** Both vehicle exhaust and wood smoke are harmful to our health (...) in places like the Cowichan Valley, where inversion layers can hold pollution in the city. But wood smoke is actually worse (than vehicle exhaust). It is a far greater source of tiny particles, which cause early deaths from heart attacks and strokes, as well as dementia (...). A *Guardian* article said wood-burning stoves in urban areas cause nearly half our exposure to cancer-causing chemicals, and can triple the level of harmful indoor pollutants. It would be great to see Cowichan municipalities (...) limiting wood stoves in urban centers. It is ridiculous to subject children playing or walking to school and elderly people walking to shops to so much pollution, knowing that it causes serious damage. We have alternatives.

Canada, British Columbia, Kamloops

RAWSEP View: Electric heat pumps, electric fireplace inserts are good alternatives to wood burning appliances. Even EPA-certified wood stoves are highly polluting and should not be alternatives to old wood burning appliances.

### [Wood stove rebate program returns with new name, some increased rebates - Kamloops News](#)

Castanet

Homeowners who swap out their old **wood burning** appliance for an electric heat pump can receive a \$1,500 rebate — up from \$1,200 offered previously ...

Excerpt

A program which encourages homeowners to replace old wood stoves with lower-emissions alternatives has returned with a new name and increased rebates. the Community Wood Smoke Reduction Program (is in) partnership with the British Columbia provincial government. Homeowners who swap out their old wood burning appliance for an electric heat pump can receive a \$1,500 rebate, up from \$1,200 offered previously. The rebate for installing an electric fireplace insert has increased to 75 per cent of the appliance cost, to a maximum of \$1,000. The program previously offered 50 per cent of the cost, to a maximum of \$700. Homeowners who replace a gas fireplace insert with a qualifying electric fireplace insert can receive a rebate of up to \$1,000. Other eligible appliance types include EPA-certified wood stoves, wood fireplace inserts, and wood or pellet furnaces. The city said natural gas or propane-fired appliances are no longer eligible for rebates. The scrap-it program rebate (to remove a wood stove and not replace it) has increased to \$400 from \$200. More information on both rebate programs can be found on the [City of Kamloops website](#).

Canada, Quebec

### [Air pollution: is Quebec or Montreal faring better? - The Bobr Times](#)

The Bobr Times

The worst stations in Quebec FINE **PARTICLES** ... Starting in 2026, **wood**-burning stoves, furnaces or boilers must be certified appliances.

Excerpt

**The Capitale-Nationale (Quebec City) pales in comparison to the city of Montreal in terms of air quality, and this could be partly caused by its delay in framing of wood stoves.**

**Five of the 11 stations** where the Ministry of the Environment lists the worst annual average for fine particles are in the Quebec City region, compared to **only one on the island of Montreal**.

The worst stations in Quebec FINE PARTICLES

STATION		Number of poor air quality days	Annual average (PM2.5)
Les Primevères School	43	9.46	
2.	Charlesbourg	38	8.27
3.	Henri IV	24	9.38
4.	St-Charles-Garnier College	23	8.38
5.	Vieux-Limoilou	20	8.70
WHO Standard:			5

Sources: Government of Quebec, RSQAQ, RSQA MTL, WHO

Quebec is also where we find the place where we counted the most days (43) with poor air quality in 2021, near the elementary school Primroses-Youth.

This school is in a suburban neighborhood that developed in the 70s and 80s. **Many single-storey houses use wood heating**, explains a report from the Public Health of Quebec.

This station has also been chosen by the Ministry for the monitoring of pollution related to **wood heating**.

More smog in Quebec 2 x From 2009 to 2021, the number of smog days in Montreal fell from 35 to 7. In 2020 and 2021, the Capitale-Nationale had the highest number of smog days in the province, i.e. 19 and 15 respectively, **nearly double what was observed in Montreal**



"I think the regulations will have a beneficial impact on air quality," believes Dr. Philippe Robert, from the public health department of the CIUSSS de Capitale-Nationale.

Quebec is lagging behind than ten years compared to Montreal in terms of **controlling wood stoves**.  
The air quality analysis station located along the Henri -IV in Quebec.

### **Lagging**

In 2020 and 2021, the Capitale-Nationale had the highest number of smog days in the province, i.e. 19 and 15 respectively, nearly double what was observed in Montreal.

The Capitale-Nationale had more than twice the number of poor air quality days in 2021 (67) than the metropolis (28).  
"Of course **Quebec is late** and out of step with Montreal for **wood-burning stoves** and for public transit," says Johanne Elsener, president of the organization Santé urbanité. (...)

In addition to Les Primevères school, the Henri -IV in Quebec has the second highest fine particle average in the province.

Measuring station Quebec School Les Primevères

Urban station Poor air quality in 2022 43 days Main contaminant Fine particles PM2.5 Annual average contaminant Micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) 9.46, WHO standard: 5

Urban station Poor air quality in 2022 24 days Main contaminant Fine particles PM2.5 Annual average  
Vieux-Limoilou station is also among the worst.

"(In) Limoilou, (...) our message is that there are fine particles everywhere in Quebec and impacts everywhere [...] so it is in our interest to reduce emissions everywhere".

### **Victim of the winds?**

(...) particles travel several kilometers. In the summer of 2020, for example, a fire in a peat bog in Bas-Saint-Laurent led to a large quantity of fine particles in Quebec City and even as far as Longueuil.

### **Montreal has improved**

For 10 years, Montrealers have been breathing a little better.

STATION	Number of poor air quality days	Annual average (PM2.5)
1.Décarie Interchange	18	9.08
2.Saint-Jean-Baptiste	10	8.43
3.Rivière-des-Prairies	9	6.94
4.Barracks	17	7
5.Montreal Airport	7	6.55
WHO Standard:		5

Sources: Government of Quebec, RSQAQ, RSQA MTL, WHO

"Montreal was the first Canadian city to deal with air pollution," explained Fabrice Godefroy, section head of the City of Montreal's Air Quality Monitoring Network (RSQA) during the a conference organized by UQAM on air quality, in early February.

In 2009, the City of Montreal **effectively banned the installation of non-certified wood stoves**. Between 2011 and 2014, financial incentives were offered to Montrealers to remove or replace their old heating appliance. It has also been **prohibited since 2015 to heat with wood on smog days**. And finally, **since 2018, it has been prohibited to use an uncertified device**.

Thus, from 2009 to 2021, the number of smog days in Montreal fell from 35 to 7.

### **Still a long way to go**

In Montreal, traffic is the main cause of fine particle 2.5 emissions, **ahead of wood heating, which follows closely**, and far ahead of industrial sources.

"Overall, the air quality in Montreal is improving, but it remains a major cause of premature death", nuance in interview Alexandre Barris, toxicologist at the regional direction of public health of Montreal.

So there is still a long way to go. For example, if we look at the Montréal-Nord sector, which includes the Décarie station and the barracks 17 on rue de Charleroi, the annual averages of fine particles remain among the highest in Québec.

### Station de mesure Montréal Caserne 17

Station in an urban environment Poor air quality in 2022 7 days Main contaminant Fine particles PM2.5 Annual average of the contaminant Micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) 7.26, WHO standard: 5

Mont-Royal measuring station Échangeur Décarie

Station in an urban environment Poor air quality in 2022 18 days Main contaminant Fine particles PM2.5 Annual average of the contaminant Micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) 9, 08, WHO standard: 5

So where is it best to live? In town or in the region?

"I wouldn't immediately move away from cities, because it's not obvious that you're going to have better air quality," (...)

"It's really going to depend on the weather too. In fact, if you move away from the cities [...], either you follow the plume of contamination (...) or you move away from the plume and there you will have a gain in terms of air quality". (...)

The neighboring station, that of Tremblay Park, is the only one in Rouyn-Noranda to measure the fine particles in Rouyn. There have (...) been 31 days where particles have contributed to poor air quality.(...)

*Sources: Ministry of the Environment and the Fight against Climate Change, data from the Quality Monitoring Network website de l'air du Québec (RSQAQ), Air quality monitoring network (RSQA) of the City of Montreal, World Health Organization (WHO).*

The number of poor air quality days was calculated for PM2.5, (...) based on Ministry of Health thresholds. Environment and the Fight against Climate Change (MELCC). (...)

For PM2.5, this is the number of days when at least one times during the day, the three-hour average was above 35  $\mu\text{g}/\text{m}^3$ . (...)

For the annual average of the Lac-Édouard and Sherbrooke stations – Parc Cambron, daily averages were used instead of hourly data.

The WHO standard is used on the map for stations measuring fine particles. (...)

### New Zealand

#### [Despite restrictions elsewhere, NZ still uses a wood preservative linked to arsenic pollution](#)

The Conversation

When CCA-treated timber is **burned**, most arsenic becomes volatile and pollutes the air, while chromium and copper contaminate the ash.

### United Kingdom (U K)

U K, London (alphabetic listing by publication)

#### [Wood burners: On smoke patrol in London - BBC News](#)

BBC

**Wood burners** and open fires make for a cosy winter's evening, ... 17% of harmful particles in the air (PM2.5) London now comes from **wood burning**. "Domestic **wood burning**, whether in a stove or an open fire, is one of the main sources of PM2.5, the most harmful of all pollutants, leading to ...

#### **Wood burners: On smoke patrol in London**

##### **Excerpt**

smoke patrol with researchers from Imperial College. a senior air quality analyst has a backpack on that is measuring air pollution - a little gadget. it is showing 11 micrograms per meter cubed, we smell smoke. it has jumped to 45 micrograms per meter cubed. This is a measurement of particulate matter of 2.5 micrometer size (PM2.5), per meter cubed in the atmosphere. They are tiny harmful particles. (Higher PM2.5 reading to 45 micrograms per meter cubed) means there's more PM2.5, so someone is burning solid fuel - either wood or smokeless coal." When we analyze this data we'll (see) if there's a (...) wood in that". The equipment can differentiate between types of smoke. What's the problem with PM2.5? Exposure to PM2.5 causes illnesses like asthma, COPD (chronic obstructive pulmonary disease), coronary heart disease, stroke, and lung cancer, according to [a report by the Royal College of Physicians](#). The World Health Organization (W H O) (yearly) is 5 micrograms per meter cubed and (daily) 15 micrograms per meter cubed.

Imperial College is doing these smoke walks to see how widespread the impact of wood burners is on our air. The issue of wood burners is heading up the political agenda. Traffic (emissions are being reduced, but), the pollution from wood burners (is) increasing. (Wood Burners) have become more fashionable. Data from Imperial College shows that 17% of PM2.5 in London now comes from wood-burning. The legislation controlling fires in London comes in part from the Clean Air Act in 1956, which followed the Great Smog in 1952 that killed thousands. London is a smokeless zone. (It is an) offence to emit dark smoke from a chimney and coal-burning (is) banned in urban areas. Only smokeless fuel can be burnt on an open fire. (Recently) in London, only government-approved wood burners, called eco-stoves, are allowed. If you break the rules you could face a fine of £1,000. Many are confused about the law and enforcement is almost non-existent. How 'eco' can stoves really be? The problem with the legislation, according to health campaigners is, whatever you burn, it still emits pollution and PM2.5. Sarah Woolnough, from Asthma + Lung UK, says: "A lot of these things are sold as eco-stoves and that they're somehow good for the environment and good for health. "The reality is they're not. Various reports show just how much pollution they're emitting. "People need to be aware of the risks and understand what these stoves can be doing to health." Campaigner Jemima Hartson from Mums for Lungs agrees. She wants this kind of heating phased out entirely, if people have alternative ways of heating their home. "Domestic wood burning, whether in a stove or an open fire, is one of the main sources of PM2.5, the most harmful of all pollutants, leading to respiratory illnesses, cardiac issues and many other irreversible health problems. "Nobody in one of the richest countries in the world should have to choose between heating, eating and polluting the air that their children and neighbors breathe," she said. even the cleaner authorised eco-stoves produced 750 times more PM2.5 per unit of energy than a modern lorry. (In 2023) London mayor set an air quality limit that means large home and office developments can no longer use wood or solid fuels. The new [Air Quality Neutral \(AQN\) guidance](#) states that all new developments in London must not contribute to net air pollution. Many think that (future) legislation will go further and urban environments are no place for burning wood. Prof Frank Kelly, from Imperial College, believes all types of burning will have to be phased out: "I think it (...) is inevitable that they are banned. "In the future we will have to stop burning things. we will have to move to cleaner alternatives. "

#### [Old, but not gold — traditional stoves linked to pulmonary diseases in GB - Dawn](#)

Dawn These **wood-burning** metal heaters are made up of three parts — a fire chamber, a chimney, and a cooking surface — and are used throughout the year. These **wood-burning** metal heaters are made up of three parts — a fire chamber ... People in urban parts of the region burn plastic bags and similar ..

#### [Committee could look at case for banning \*\*wood\*\* burners in towns and cities - Daily Mail](#)

Daily Mail

Around 17 per cent of particulate pollution comes from **burning wood**, ... be exploring whether to expand **smoke** control areas to outlaw the fires. Government data show that **woodburning** stoves emit more particulate pollution, the most deadly form of pollution, than road transport.

#### [UK's worst air pollution hotspots: Is YOUR area at risk? - Daily Mail](#)

Daily Mail

The map shows most of the particulate matter is the largest classification, **PM 2.5**, which is still invisible to the naked eye and small enough to pass ...

#### [UK MPs could weigh merits of urban ban on domestic \*\*wood\*\* burning | Air pollution](#)

The Guardian

**Wood burning** is one of biggest sources of small particle pollution in Britain, having doubled in a decade. The question instead is what level of **PM2.5** is deemed 'acceptable'," he said. "The latest stove designs may emit less pollution, but if every ...

Excerpt

Wood burning is one of the biggest sources of small particle pollution in Britain, having doubled in a decade. The chair of the environmental audit committee (...) declined to say whether the committee would recommend a ban, as [some campaigners had urged](#). Concern is growing over the impact of domestic wood burning in urban areas, which can lead to the release of large amounts of fine particulate pollution, known as PM<sub>2.5</sub>, which can pass through the lungs to the bloodstream and penetrate deep into the body. This form of pollution has been linked to severe harms, including heart and respiratory problems, dementia and reduced intelligence. The head of the UK's main biomass trade body, the Renewable [Energy](#) Association (REA), also said the government should consider arguments for a ban within about four years. The chief executive of the REA, which represents many sellers of wood as well as other forms of renewable energy, said the government should first work to bring in better regulations, and enforce them, then consider a ban. (REA suggests) If such regulations proved ineffective, then within a cycle of council elections, up to four years, a ban should be considered. (...) Wood burning is one of the two biggest sources of [small particle pollution in the UK](#), having [doubled in the past decade](#). Only 8% of homes have wood burners but they produce more pollution than all the UK's road traffic. (...) The government recently [strengthened the regulations on new biomass burners](#), and promised to clamp down on wood burning that fell foul of the rules. Gary Fuller, of Imperial College London, said: "I am doubtful of the effectiveness of new stove standards." He said real-world performance did not match the idealized conditions in which stoves were tested. Tests also miss some of the stove emissions, he adds, including condensable particles that form in the smoke as it cools, while the chemicals in fire smoke also react while in the air to form new pollution particles, which tests do not capture. (...) James Allan, of Manchester University, added that (...) mean air pollution problems would increase, even with more efficient stoves. "There is no 'safe' level of PM<sub>2.5</sub> because it has been shown that even small amounts have a measurable effect on health outcomes. The question instead is what level of PM<sub>2.5</sub> is deemed 'acceptable'," he said. "The latest stove designs may emit less pollution, but if every household in the UK were to install one and use them all simultaneously we'd likely be in big trouble." The Liberal Democrats and two MPs on the committee, the Green party's Caroline Lucas and Barry Gardiner of Labour, also said the EAC should examine wood burners. Tim Farron, environment spokesperson for the Lib Dems, said: "The EAC should look into this. The air in Britain's cities urgently needs cleaning up, and that includes restrictions on wood burning stoves. A sensible approach would be tighter restrictions in built-up urban areas such as London, whilst also acknowledging a nationwide ban would disproportionately hit rural communities." (...) research has shown that even using dry wood in burners certified by the Department for Environment, Food and Rural Affairs produces large quantities of harmful PM<sub>2.5</sub> emissions. A study by the European Environmental Bureau found that a single eco-design wood-burning stove produced the [same emissions as 750 HGV lorries](#). A government spokesperson said: "(...) The recently-published Environmental Improvement Plan sets out our intent to reduce emissions from domestic burning, and through the Environment Act we introduced changes to make it easier for local authorities to enforce smoke control areas. We will continue our efforts to raise awareness of how to reduce emissions."

#### [Pollutionwatch: London Ulez cuts traffic fumes but heating is concern - The Guardian](#)

The Guardian

This means tackling more than just **wood-burning** stoves. Burning natural gas, or possibly burning hydrogen in the future, will keep pollution ...

Episode 54 K g

#### [Selfish or a godsend? Readers share their views on wood-burning stoves - The Guardian](#)

The Guardian

Readers share their views on **wood-burning** stoves. Demand for wood stoves is soaring in energy crisis despite research showing their harmful effects.

Selfish or a godsend? Readers share their views on wood-burning stoves. Domestic combustion is the single biggest source of small particulate (PM<sub>2.5</sub>) air pollution in Britain, outstripping road traffic.

Excerpts

Campaigners have called for stricter legislation on (the use of wood burning stoves) because of their [negative impact on air pollution and health](#), with wood burning in the UK gaining in popularity over the past decade.

Domestic combustion is the [single biggest source of small particulate](#) (PM<sub>2.5</sub>) air pollution in Britain, outstripping road traffic. After a series of reports about the environmental harm caused by wood-burning stoves, hundreds of people responded to a Guardian callout to share their views. Since 2022, only stoves that meet the ecodesign standard can be legally sold in the UK. the ecodesign standard [is still responsible for high amounts of PM<sub>2.5</sub>](#). (Some readers) who lived in cities said they resented the effect solid-fuel burning was having on air quality. Others said they had changed their mind after reports on air pollution and some had chosen other ways to heat their home, such as bioethanol fires.

Excerpts from two of five readers who responded.

The first responded: ‘(wood burning) should be banned in urban areas’

The neighbouring houses have them and the smoke pollution in the colder months is rampant. In the past year, more people in my area are doing it for longer. The otherwise good air quality is rendered thick and irritating and the serious health risks are well documented. Continuing to burn solid fuels in urban areas willfully ignores this information and is selfish and antisocial. It is unnecessary in modern homes.

These risks and the unpleasant cloying fumes mean windows cannot be opened for fresh air. Those that have wood- and coal-burning facilities are making the rest of us pay. It should be banned wherever population density exceeds a minimum threshold.

The second responded:

The warm glow of bioethanol (and self-righteousness) keeps me warm in the evenings, after a decision three years ago to go against the grain of my peers and not buy a wood-burning stove and rather go for a bioethanol fire, on air quality and carbon reduction grounds.

My wife (...) last week said: “Looks like you were right about wood-burning stoves”, having read the recent reports regarding air quality. The fire looks the same, kicks out a decent amount of heat and is, on balance, cheaper too (no flue or cleaning required).

#### [Stove makers react to plans for stricter controls on stove performance - H&V News](#)

H&V News

**Wood** fuels body HETAS said it welcomes government commitments to implement stricter stove output requirements in **smoke** control areas. The stated. reliant on solid fuel **burning** for heating, hot water and cooking.

#### [Calls for \*\*wood\*\* burning stoves to be banned by 2027 - but not everyone is happy about it](#)

InYourArea

Campaigners are calling for an urgent review of **wood** burning stoves, ... found in air pollution **particles** in urban areas

#### [Demand for \*\*Wood\*\* Stoves Increases in Urban Areas Despite Its Harmful Effects to the Environment](#)

Nature World News

Demand for **wood-burning** stoves has risen, including in urban areas, as households seek more cost-effective ways to stay warm during the energy ...

#### [Are \*\*wood burning\*\* stoves bad for the environment and your health? - NationalWorld](#)

NationalWorld

Experts have warned the public to “act responsibly” around the use of **wood burners** after they were found to be the biggest source of PM<sub>2.5</sub> ... Road transport, industry and **burning wood** and other biomass to produce electricity all produce fewer PM<sub>2.5</sub> emissions.

#### [Double standard on \*\*wood burning\*\* | Comment | The Sunday Times](#)

The Times

Your article “**Wood-burners** are under fire. So how bad are they?” (News Review, last week) tells us the government regards domestic **wood-burners** as ...

#### [Double standard on \*\*wood burning\*\* | Comment | The Sunday Times](#)

The Times

Your article “**Wood**-burners are under fire. So how bad are they?” (News Review, last week) tells us the government regards domestic **wood**-burners as ...

[Can I complain about my neighbour's \*\*wood-burning\*\* stove? | Home | The Sunday Times](#)

The Times

My neighbour's **wood-burning** stove smells unpleasant. We live in a semi-rural location within “a smoke control area”. A new neighbour has moved into a ...

U K, Leicestershire

[Channel 4's George Clarke creates amazing caravan with eco alternative to \*\*wood burning\*\* stove](#)

Leicester Mercury

In the most recent episode of George Clarke's Amazing Spaces, the architect gushed over his new caravan which featured a **wood burning** stove ...

[Wood burning stoves worse for climate than coal, experts claim - Leicestershire Live](#)

Leicester Mercury

**Burning wood** could be worse for the environment than coal as trees are cut down for fuel.

[Should \*\*wood-burning\*\* stoves be banned? Have your say in our poll - Leicestershire Live](#)

Leicester Mercury

**Wood-burning** stove rules introduced in 2022 mean new models sold have to meet certain emissions targets and are labelled Ecodesign. However, these ... However, these models still emit a staggering 750 times more tiny **particle** pollution than a modern HGV truck, the European Environmental Bureau ... Many families love their **wood-burners** but scientific evidence says they are terrible for your health.

U K, Sandwell

[Sandwell is replacing 51 localised \*\*Smoke\*\* Control Areas \(SCAs\) with one boroughwide SCA.](#)

Sandwell Council

Air pollution is a significant issue in Sandwell and some of the most harmful man-made air pollutants are emitted from **wood** and coal **burning** ...

[Smoke control area on way for Sandwell in crackdown on unauthorised \*\*burning\*\* in homes](#)

Express & Star

Stricter rules on **burning wood** or other items through chimneys in Sandwell are set to be introduced under a proposed borough-wide scheme to help ...

U K, Scotland

[Scottish Government gave £8m of green funds to coal firm - Yahoo News UK](#)

Yahoo News UK

It uses steam produced by RWE's Markinch **wood-burning** biomass plant to heat homes and businesses in Glenrothes. RWE is the firm behind the expansion ...

Europe

[Greenwashing when \*\*burning wood\*\* jeopardizes climate targets - Globe Echo](#)

Globe Echo

**Wood burning** has been promoted in the EU for years, allegedly to mitigate climate change. International research now shows that the hunger for ..

Excerpt

**Wood burning has been promoted in the EU for years, allegedly to mitigate climate change. International research now shows that the hunger for wood can have the opposite effect, also because certificates fail.** 40 percent renewable



energy in Europe with wood. What many do not know: almost 40 percent of the renewable energy in Europe is generated with wood. Wood is not only burned in the form of so-called pellets in pellet stoves, but also in combined heat and power plants and sometimes in large coal-fired power plants to replace coal as a fuel. The EU Commission has so far classified this as CO<sub>2</sub>-neutral. The logic behind it: The forests would directly absorb the CO<sub>2</sub> released during wood burning and grow back. The EU is promoting the use of biomass with up to 17 billion euros per year, 60 percent of which is wood. Because unlike burning coal, no CO<sub>2</sub> certificates have to be purchased for burning wood, although scientific studies show that burning wood releases even more CO<sub>2</sub> than burning coal in relation to the amount of energy generated. Since the EU has defined wood as a climate-neutral fuel, it is massively subsidized by the EU and the national states. This has further fueled the hunger for wood as a fuel – with effects not only on Europe’s forests, but now also on the ecosystems of other continents, as the research shows. Pellets from North Carolina. In the U S state of North Carolina, (...) Europe’s hunger for more and more wood is making itself felt. The world’s largest pellet manufacturer Enviva first makes pellets from the wood harvested here and then ships most of it to Europe.

#### Episode 54 K h

They are burned by German corporations, among others. For example, RWE confirms that it will purchase pellets from Enviva, (...) for two coal-fired power plants in the Netherlands that don’t just burn coal. It’s called “co-firing” and R W E is doing it on a grand scale. (...) Research at Enviva’s local pellet plants shows that smaller logs of different thickness and quality are used for large-scale production. On request, Enviva states that wood is mainly used for pellet production that usually cannot be used on other higher-value markets, such as tree crowns and branches, crooked or diseased trees, calamity wood, overburden, undergrowth or thin tree trunks. Environmental activists doubt meaningfulness. (...) when it comes to sustainability, the standards of some of the largest certifiers are applied. Only three percent of their wood comes from the natural deciduous forests in their area. From 2011 to 2021, forest in Enviva’s primary sourcing districts increased by more than 20 percent. Environmental activists question the validity of these numbers. (...) The analysis identified 48 sub-certification companies that had certified products from companies that had previously been accused of logging protected forest, using false permits or importing illegally harvested timber. (...) more than 340 certified wood processing companies have been accused of environmental crimes or other offenses since 1998, around 50 of which had received certificates confirming their sustainability even after they had already had to pay fines or had been convicted. Research: Billions in subsidies for wood combustion.

#### Africa

Africa: Cookstove Projects in Rwanda, Uganda, Sub-Saharan Africa, Tanzania, Nepal and Zambia

[Projects Open for Public Comment: 27 February, 2023 - Verra](#)

Verra ... Altamira Grouped REDD+ Project – closes 22 March; Installation of high efficiency **wood burning** cookstoves in Rwanda – closes 22 March ...

#### Excerpt

To ensure the transparency and rigor of our standards programs, Verra invites comments from the public on whether projects seeking to register in one or more of Verra’s standards programs meet the requirements of that program. Comments received by Verra will be published to the project record on the [Verra Registry](#) and must be considered by the project proponent. **The public comment periods for the following projects opened during the week of 19 February.** *To submit a comment, click on the hyperlink for the respective project and enter your feedback in the “Public Comment” box on the project page on the Verra Registry.*

- [Rwandan Improved Cookstove Project](#) – closes 22 March
- [Installation of high efficiency wood burning cookstoves in Uganda 2](#) – closes 22 March
- [Installation of High Efficiency Cookstoves in Sub Saharan Africa by ECC](#) – closes 24 March
- [Installation of high efficiency wood burning cookstoves in Tanzania – Project 3](#) – closes 25 March
- [SMG – Nepal Cookstove Program in Terai Region of Himalayas](#) – closes 26 March
- [Installation of high efficiency wood burning cookstoves in Zambia – Project 2](#) – closes 26 March

#### India and Pakistan

[India and Pakistan's mutual pollution - Global Village Space](#)

Fourteen of the top 15 cities in the world with the highest particulate matter (**PM**) 2.5 pollution levels are located in India and Pakistan.

Excerpt

Every winter, South Asia's severe pollution worsens, contributing to an estimated 128,000 deaths in Pakistan and 1.2 million deaths in India, more than the total deaths in either country. Instead of attempting to work together on the issue for mutual benefit, the governments of India and Pakistan react by placing blame on one another. (...) brick kilns, and farmers burning post-harvest rice stubble all contribute to the deadly pollution that blankets northern India and Pakistan. This results in the creation of the most poisonous air in the world, measured by the amount of "microparticle" pollutants—those small enough to lodge deep inside people's lungs, enter their bloodstreams, and cause cardiovascular and lung disease. Fourteen of the top 15 cities in the world with the highest particulate matter (PM) 2.5 pollution levels are located in India and Pakistan. The air quality severely harms the health of millions of people and their future economic potential in South Asia. The risk of heart and lung disease and strokes is elevated by high concentrations of fine particulate matter (PM) 2.5. Air pollution also results in a 2.9-year decrease in the global average life expectancy. In India, air pollution reduces average life expectancy by five years. A recent study found that the typical life spans of Indians living on the Indo-Gangetic Plain are up to seven years shorter than without air pollution. As winds and rain decrease every winter, a brown haze high in sulfur and metals like lead accumulates over the subcontinent. For most of this winter, as for many earlier years as well, Mumbai, the commercial hub of India, had been shrouded in thick smog. The PM-induced grey haze has wholly obscured the city's skyline. Mumbai experienced 36 days of "poor" air quality between November and January, posing a health risk to even healthy individuals. In winter, there were significant smog-related disruptions in Pakistan's Punjab province, which produces 60% of the country's output; school holidays were prolonged, flights were diverted or delayed, and highways were shut down overnight. (In India) Burning anything besides fuels was prohibited under an ambitious air pollution control regulation from 1981, but it was never really implemented. Worse still, Punjab state in India accidentally pushed farmers hastily clear their fields for winter wheat by burning enormous acreages of rice residue after each harvest to save scarce water by announcing a delay in the rice-growing season. When pollution levels reached extremes in Delhi, the local authorities shut down a coal-fired power plant and occasionally restricted automobile traffic. The Indian government established a commission in 2020 to enhance the capital city's air quality. Despite the various government initiatives and COVID lockdowns, the air quality did not improve significantly. According to the Center for Science and the Environment in New Delhi, more substantial, enforceable, and broad reforms are needed. Read more: [Be a part of solution, not pollution](#) Even a national network of stations for measuring air quality is absent in Pakistan, making it impossible for the people to know the full scope of the issue. The citizen monitoring project, now known as the crowd-sourced Pakistan Air Quality initiative, was followed by some official initiatives. The Punjab province of Pakistan restricted the burning of grain stubble to clear farms and mandated improvements to conventional, coal-fired brick kilns, but these rules need to be adequately enforced. The governments of India and Pakistan cannot cooperate on the smog situation due to their mutual hostility. The ideal situation would be for the two countries' governments to collaborate on data exchange and policy development while each is working towards a locally set goal. As a result, India and Pakistan could give more straightforward or affordable pollution control measures—like controlling brick kilns—priority over more complex or expensive ones, like dismantling coal-fired power plants. In the end, cooperation is the key.

India, Air Conditioners are now combined with PM2.5 filters

[6 Best ACs Under 45000 in India to Beat the Summer Blues - The Economic Times](#)

The Economic Times

Equipped with a **PM 2.5** filter, this smart air conditioner can filter out fine particles and supply fresh air. Brand: Carrier; Type: Split AC ...

India, Guwahati

### [Degrading Air Quality Of Smart Guwahati](#)

Guwahati Plus

It's all because of two main reasons in pollution control language that we say **PM 2.5** and PM 10. PM is **Particulate Matter**, **2.5** is the size.

India, Odisha

### [Cheaper diagnostic tests in UP hospitals soon | News Room Odisha](#)

Breaking News-Newsroom Odisha

Long-term **PM 2.5** exposure linked to increased heart attack risk. Young Hyderabad cop died while working out at gym ...

Episode 54 K i

Research on Health Effects of PM2.5 (Wood Smoke is 90% PM2.5)

Autonomous Vehicles and PM2.5

### [Energy and environmental impacts of shared autonomous vehicles under different pricing strategies](#)

Nature

Under an appropriate pricing strategy, SAV deployment could reduce **PM2.5** emission and energy consumption by 56–64% and 53–61%, respectively.

Heart Attack and Stroke linked to PM2.5 (Wood Smoke is 90% PM2.5) Alphabetic listing by publication

### [Long-term PM 2.5 exposure linked to increased heart attack risk - dtnext](#)

dtnext

NEW YORK: Long-term exposure to air pollution, particularly particulate matter (**PM**) **2.5**, has been linked with an increased risk of heart attack ... is fine particles that are **2.5** micrometres in diameter or smaller.

### [Long-term air pollution exposure tied to CV health risks - Healio](#)

Healio

“Our study is one of the largest to date to look at the effects of long-term exposure to fine particulate air pollution **PM2.5**, and it clearly adds ...

### [Long-term PM 2.5 exposure linked to increased heart attack risk | MorungExpress](#)

The Morung Express

New York, February 25 (IANS) Long-term exposure to air pollution, particularly particulate matter (**PM**) **2.5**, has been linked with an increased risk ...

### [Small amounts of air pollution increase risk of heart attack, death: study - New York Post](#)

New York Post

The US Environmental Protection Agency regulatory standards for **PM2.5** are 12 micrograms per cubic meter on average over the course of a year. As of ...

### [Long-term PM 2.5 exposure linked to increased heart attack risk - NewsGram](#)

NewsGram

Long-term exposure to air pollution, particularly particulate matter (**PM**) **2.5**, has been linked with an increased risk of heart attack and other ...

### [Even small amounts of air pollution cause potentially fatal heart attacks and strokes](#)

Study Finds

The **particles** commonly come from diesel fumes, **wood** smoke, brake pads, tires, and road dust. The U.S. Environmental Protection Agency's current annual ...

### [Current air pollution standards tied to higher heart risks - Yahoo Finance](#)

Yahoo Finance

Fine particle air pollution, also known as **PM2.5**, are fine particles that are 2.5 micrometers in diameter or smaller. The research lends support ...

Immunological Weakness linked to PM2.5 (wood smoke is 90% PM2.5)

### [Early Life Immunological Disruptions Linked to Prenatal Exposure to Ambient Air Pollution](#)

Physician's Weekly

Higher prenatal exposure to NO<sub>2</sub>, **PM 2.5**, and PM 10 was linked to altered immune profiles in the blood at age 6 months, which were linked to ...

Lung Disease linked to PM2.5 (wood smoke is 90% PM2.5)

Parkinson Disease linked to PM2.5 (wood smoke is 90% PM2.5)

### [Air Pollution Linked to PD, With Some Parts of US More Affected Than Others](#)

American Journal of Managed Care

The current study looked at fine particulate matter, PM 2.5, which is less than 2.5 microns in diameter. Fine particles come from motor vehicle ...

### [What is Parkinson's Disease? - KSL TV](#)

KSL TV

Welders, McKee said, tend to have a greater incidence of PD. A recent study found higher levels of PM 2.5, particulate pollution, were associated with ...

### [Parkinson's disease cases are rising in a surprising 'hot spot' for U.S. air pollution](#)

Study Finds

They were specifically looking at concentrations of fine particulate matter (**PM 2.5**), in these areas. These particles often come from car vehicle ...

Pregnancy harm and PM2.5

### [The risk of air pollution exposure during pregnancy - Health-e News](#)

Health-e News

"**PM2.5** is one of the most harmful pollutants to human health. It is the particle which goes very deep into someone's lungs and crosses over into ...

Sleep and PM2.5

### [Top U.S. Cities for Sleep Health | U.S. News](#)

U.S. News & World Report

Air quality measured by amounts of fine **particulate matter** of less than **2.5** micrometers that are suspended in the air for a 24-hour period (**PM** ...