CSS-17a

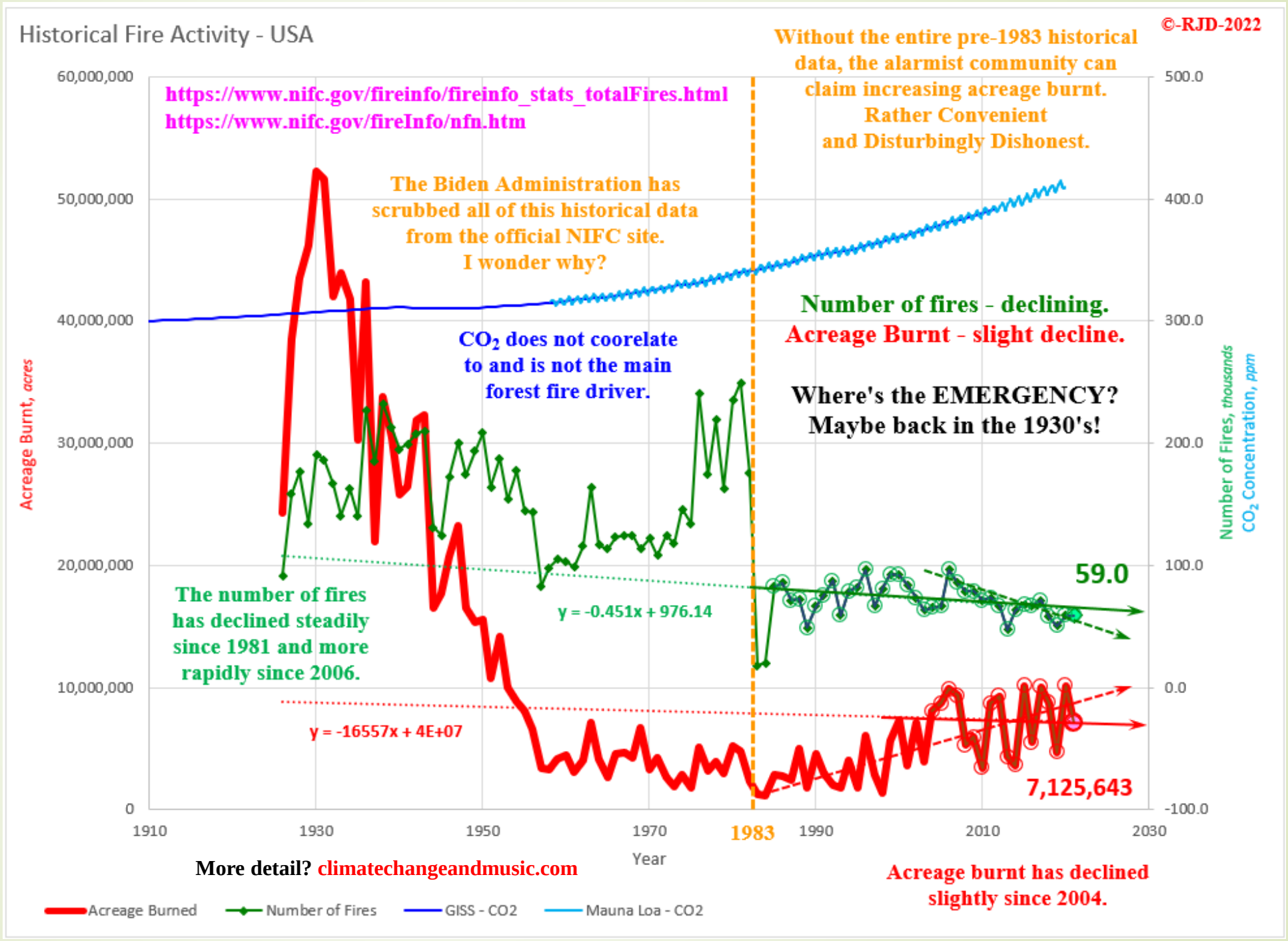
# Forest Fires
# March 2022 - USA

**This Climate Short Story goes over the burn history from various places around the world. The story combines plots that I made from readily available data and images that were pulled from other documents/authors.**

**Bottomline, the general global burn trend is down (as shown by NASA in the last slide (CSS-17g)).**

**The first few slides focus on the USA, followed by a slide for Canada, then Australia. The last slide shows the European and Global Trends. This slide shows the NIFC government data (both the 1983 to the present cherry-picked data and the earlier, now conveniently unavailable 1926 to 1982 data). $CO_2$ emissions are not controlling the number of fires or the Acreage Burnt. Human activity does have a significant influence on Forest Fires (fire suppression, prescribed burns, fuel build-up, population, intrusion, etc.), with minimal emission contribution. Both the number of fires (since 1985 and accelerating in 2006) and acreage burnt (slightly since 2004) have been trending down. Atmospheric $CO_2$ concentrations steadily increased as Acreage Burnt dropped from significantly higher levels (4-5 times higher the current levels) and have been declining since the early 21st century. Hmmmm….. Maybe, just maybe the pre-1960 fire situation was worse than our current (or future) "emergency". Time to WAKE UP!**

**Forest Fires USA**




GSM – Grand Solar Minimum. The real "Climate Change" existential threat is right around the corner. Do the Research!

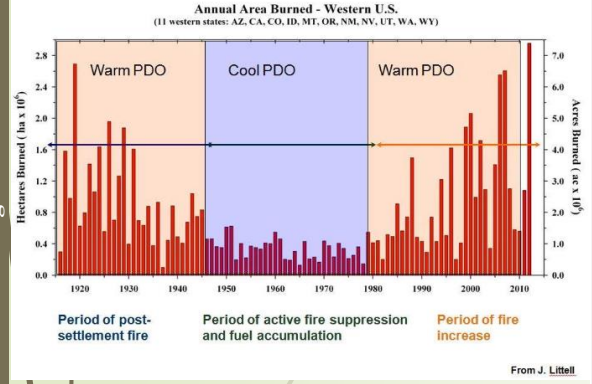
CSS-17b

# Forest Fires March 2022 - California

More detail? climatechangeandmusic.com



Area burned in 11 Western states, 1916-2012




California is the major source for "Climate Change" fear porn in the USA. The fires are real and they are tragic, but they do not correlate to $CO_2$ emissions. The last two years have been especially bad. Human factors definitely play a role here (not the least of which is the 94.6% of fires that are started by humans). Many studies have pointed to the Pacific Decadal Oscillation (PDO) and the el Niño Southern Oscillation (ENSO) influence. Only the PDO is shown here. The California data is subject to the same culling experienced by the overall USA data. And as shown in the previous slide, the increasing acreage burnt in California is not reflected in the overall USA data. A perfect example of the alarmist habit of focussing on a specific area or event to push their Climate fear porn. California does have a fire problem but that is not reflected in the global situation.

**Forest Fires California**

California Wild Fires

https://www.fire.ca.gov/stats-events/

Report (Link referenced but disconnected on the website above)

CAL FIRE Jurisdiction Fires, Acres, Dollar Damage, and Structures Destroyed (1933-2016)

Finding the California data was a difficicult task. The National Interagency Fire Center (NIFC) only goes back to 2002. Too short to get a trend. The CAL FIRE data covers 1933-2016, but as mentioned above the link is referenced but no longer available. The difference in Number of Fires between the two data sets is quite dramatic and currently irreconcilable. The acreage burnt is much closer and allows a general discussion on trends.

The general trend from the Cal Fire data set is shown below. The Acreage burnt was high in the Dust Bowl (1930 and 40s), declined to a low around 1970 and has been increasing since then. Not that consistent with the steady $CO_2$ rise!!

The PDO and ENSO have significant effects on California's climate and therefore forest fires. Entering a cool, lower fire PDO phase.

ENSO el Niño Southern Oscillation

PDO Pacific Decadal Oscillation

The Number of Fires has been declining

A little correlation problem? Fire - $CO_2$

Acreage burned
1933-1945 : 12.1 million acres
2007-2019 : 10.7 million acres

$CO_2$ Concentration
310.3 ppm
410.3 ppm

94.6%

93.7%

Human Started 96.2%

93.9%

2020 was a very bad year in California but that isn't proof of catastrophic "Climate Change"

The supposedly "Never Ending" Drought is over!! Courtesy heavy rain and snow over the last few years

2019 was a very good year in California but that isn't proof of catastrophic "Climate Change" either

Number of Fires
CO2 Concentration (x10), ppm
Burnt Area, acres
Year

Warm PDO | Cold PDO | Warm PDO | Cold PDO

Only 22 of 84 years (26.2%) had a lower burn acreage than 2019

https://www.nifc.gov/fireinfo/fireinfo_stats_totalFires.html
https://www.nifc.gov/fireInfo/nfn.htm

CalFire Number of Fires | NIFC Total Fires | Mauna Loa - CO2 | GISS - CO2 | CalFire Burnt Area | NIFC Acreage Burned

GSM – Grand Solar Minimum. The real "Climate Change" existential threat is right around the corner. Do the Research!

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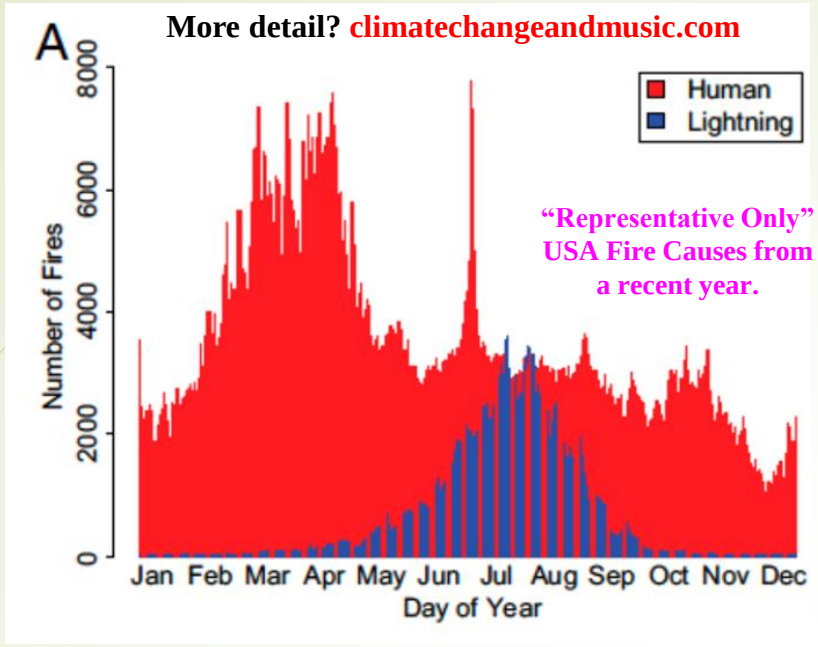
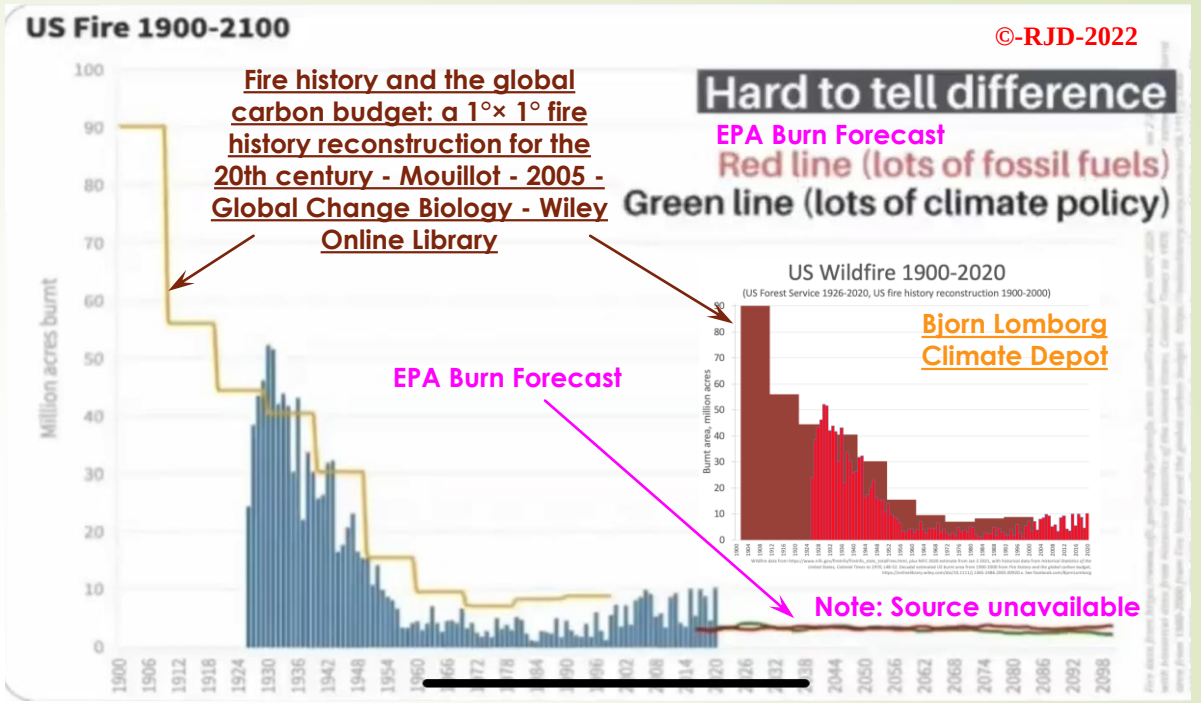
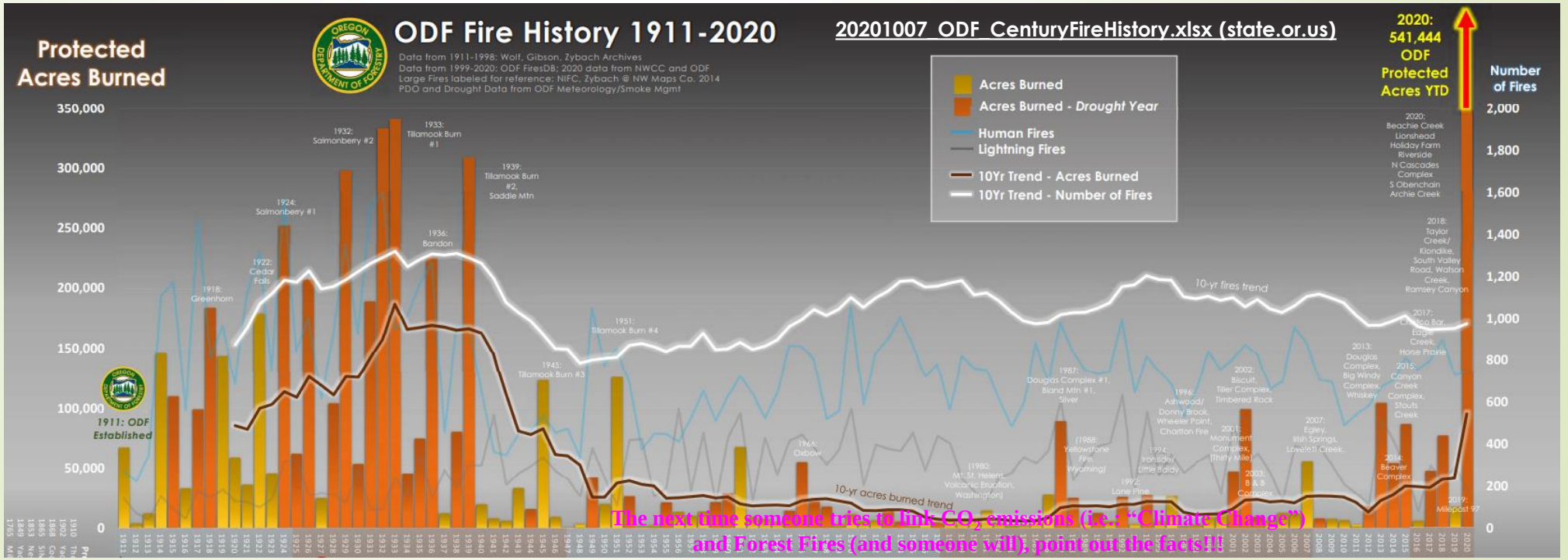
# Forest Fires March 2022 – USA+

**Forest Fires Misc. USA**

These are just a few more examples to supplement the previous discussion. The plot to the immediate right shows graphically that humans do have a major influence on the fire situation. California is currently around 95% human caused with Oregon (lower right plot) around 80 – 85% (similar to the USA plot to the immediate right). The Oregon data, not surprisingly, is similar to California. Although they have not experienced as much rise over recent years (until the unusual step increase in 2020). The two charts to the far right are based on the same historical data. The far-right chart (from Bjorn Lomborg's work) was added to show the 20th century historical data source (Mouillot 2005). The middle plot was pulled from a recent presentation and shows the EPA estimate for continued fossil fuel use (red) and with current climate policy (green). The difference between the two curves is almost insignificant and would certainly not justify the trillions in "Green" spending being proposed by the climate alarmist community. By the way, where is that comprehensive cost-benefit analysis? The EPA flat burn profile is consistent with the burn acreage trend since 2004.

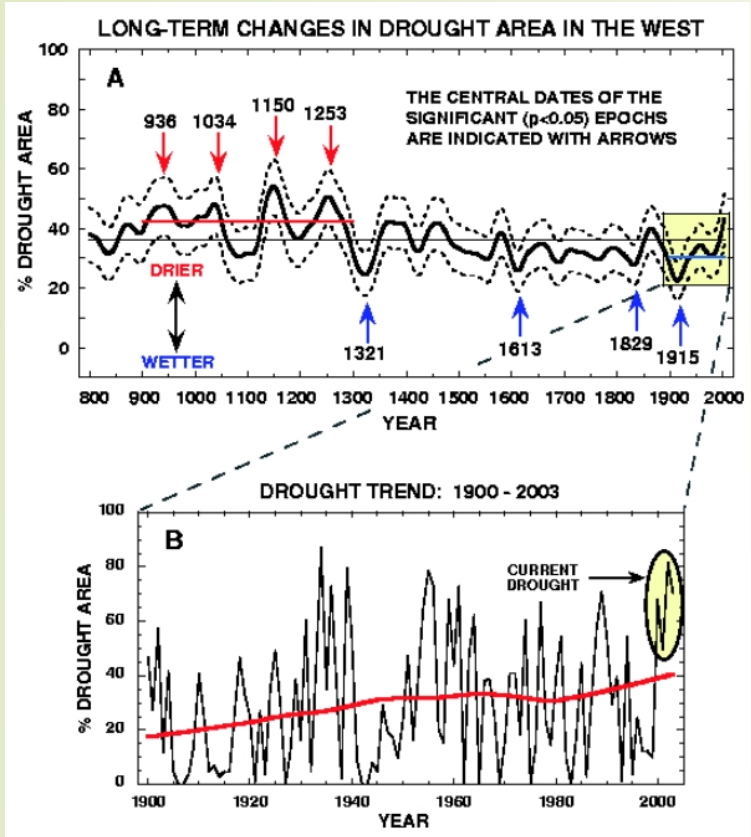


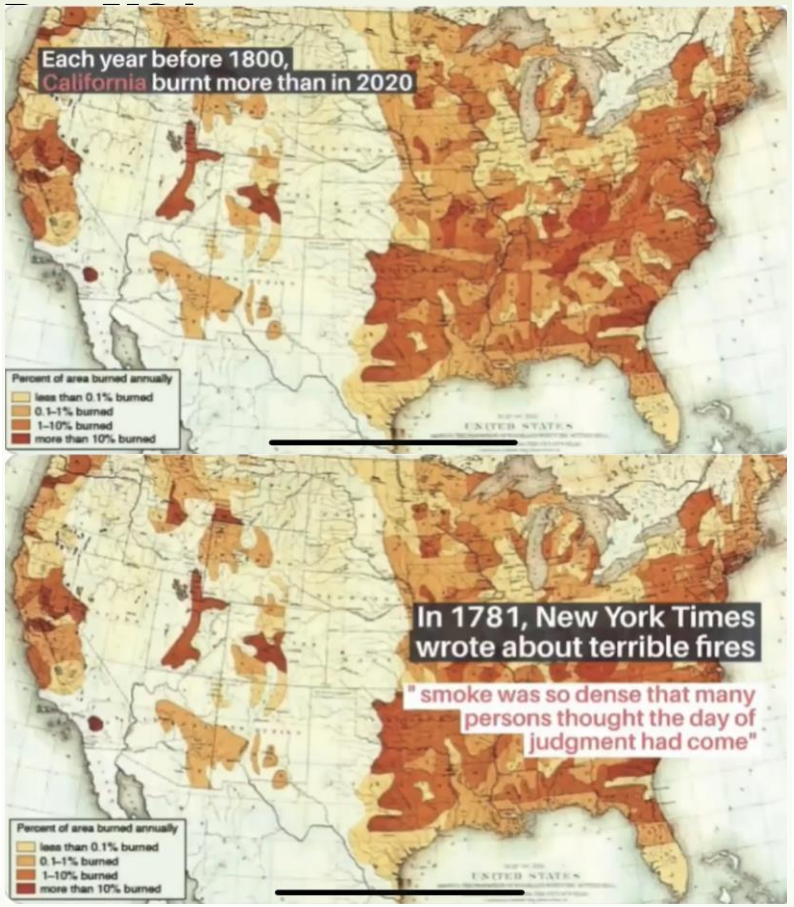



# CSS-17d Forest Fires - March 2022 –

The characteristics and likely causes of the Medieval megadroughts in North America (columbia.edu)






1995
FEDERAL WILDLAND FIRE MANAGEMENT POLICY

Searches for this report were unsuccessful. There are plenty of references (70,700 on Bing) to reviews and updates of the report.

JANUARY 2001

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
National Park Service
U.S. Fish and Wildlife Service
Bureau of Indian Affairs
Geological Survey
Bureau of Reclamation

U.S. DEPARTMENT OF AGRICULTURE
U.S. Forest Service

DEPARTMENT OF ENERGY

DEPARTMENT OF DEFENSE

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration/National Weather Service

U.S. ENVIRONMENTAL PROTECTION AGENCY

FEDERAL EMERGENCY MANAGEMENT AGENCY

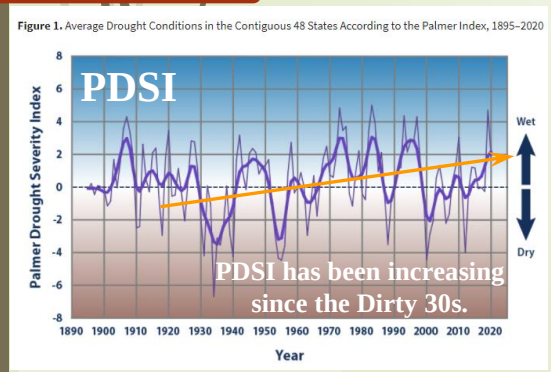
NATIONAL ASSOCIATION OF STATE FORESTERS

IMPORTANT FIRE MANAGEMENT ISSUES

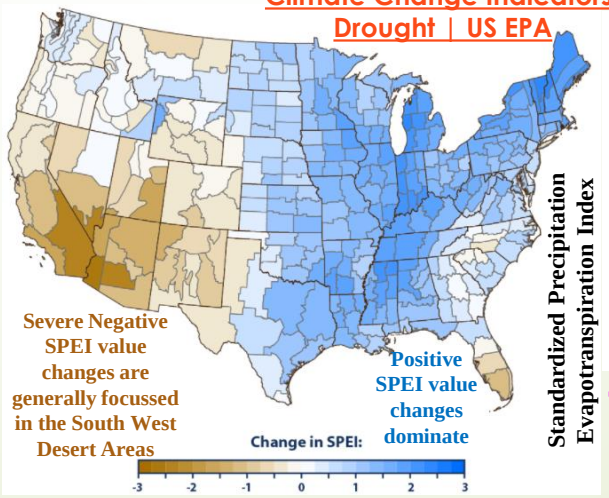
## Why is this report no longer available?

## Forest Fires Pre-USA

**Droughts and Forest Fires are not a new phenomenon in the USA west. Mega-Droughts (above) were decades in length not the few years that have been typical through our lifetimes and Forest Fires were burning roughly 145 million acres annually prior to the 20th century. The 2021 burnt acreage was 7.1 million acres (5% of historical norms and 15% less than the early 20th century levels).The minor climate changes we are experiencing are insignificant compared to the real climate change the early settlers to North America faced (indigenous or otherwise). NOT an EMERGENCY!**




Climate Change Indicators: Drought | US EPA




### HISTORICAL CONTEXT

Historically, fire has been a frequent and major ecological factor in North America. In the conterminous United States during the preindustrial period (1500-1800), an average of 145 million acres burned annually. Today only 14 million acres (federal and non-federal) are burned annually by wildland fire from all ignition sources. Land use changes such as agriculture and urbanization are responsible for 50 percent of this 10-fold decrease. Land management actions including land fragmentation and fire suppression are responsible for the remaining 50 percent.

This decrease in wildland fire has been a destabilizing influence in many fire-adapted ecosystems such as ponderosa pine, lodgepole pine, pinyon/juniper woodlands, southern pinelands, whitebark pine, oak savanna, pitch pine, aspen, and

**The next time someone tries to link $CO_2$ emissions (i.e.: "Climate Change") and Forest Fires (and someone will), point out the facts!!!**

**More detail? climatechangeandmusic.com**

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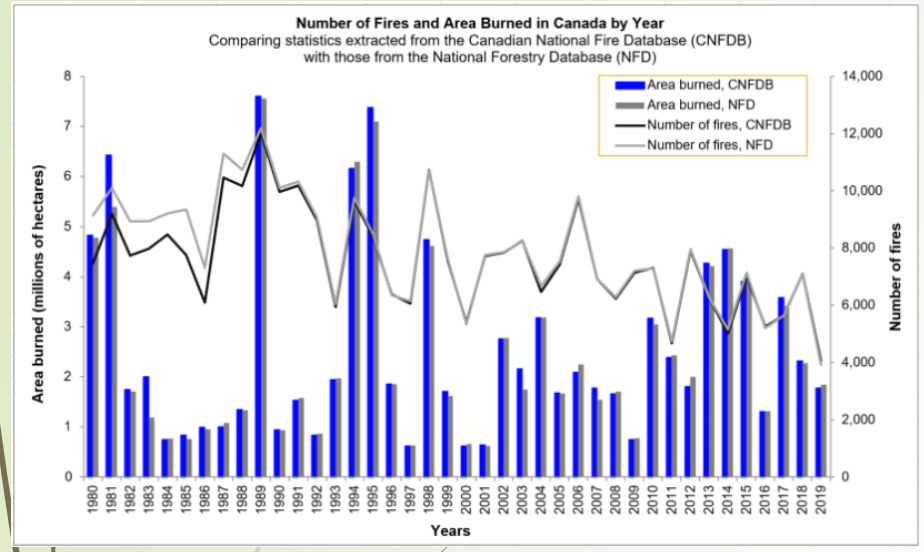
# Forest Fires - March 2022 – Canada




https://cwfis.cfs.nrcan.gc.ca/ha/nfdb

**The Canadian Government Fire Statistics cover the 1980 – 2019 Period and do not indicate that rising $CO_2$ is leading to more or bigger forest fires. The opposite is the truth!**

## Are the Improved/Flat Fire Statistics due to "Climate Change"?

**Forest Fires Canada**

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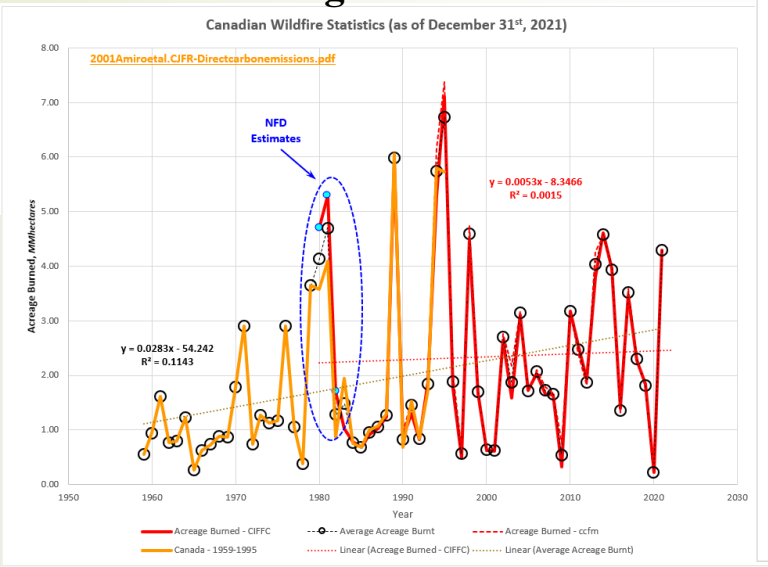
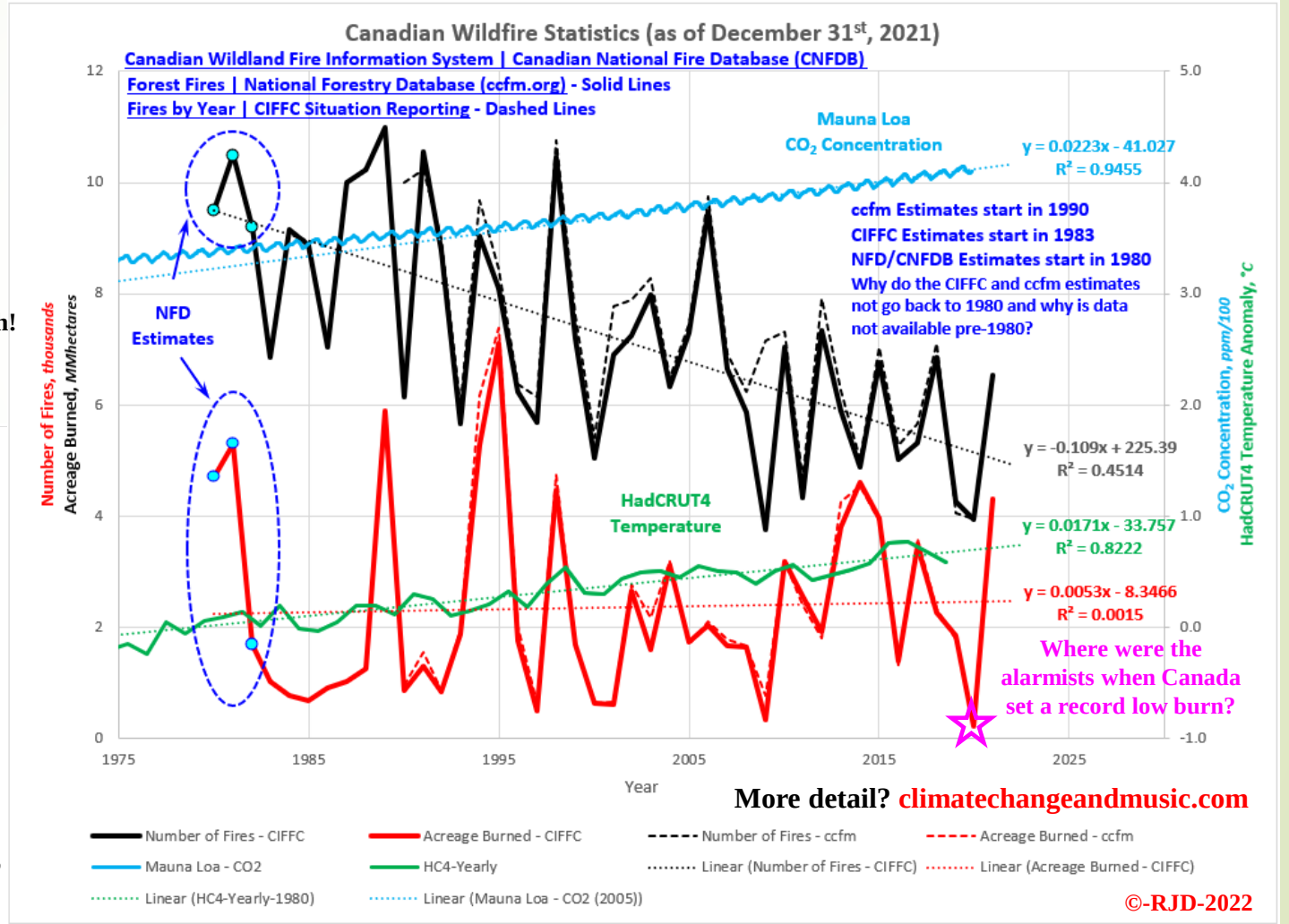



**The Canadian government data does not go back as far as the US data. The Canadian National Fire Database (CNFDB) had the longest history going back to 1980. You would think that we had fires prior to 1980 (sarcasm). And of course, we do. Our governments just do not make the data easy to find. I was able to find a paper (Flannigan et al., 2001) that had data covering 1959 to 1995. That data was plotted with the CIFFC, ccfm and CNFDB data to see how the various curves compared. The 1959 – 1995 data was a little different than the comparable data. I am not sure why the Canadian Government does not include these numbers in their official records. Ultimately, the datasets I was able to find are not a representative climate period. As shown in the first slide, USA burnt acreage was also low in the late 1950s and has generally risen since then. Canada was also subject to the same problems the USA faced during the Dirty Thirties. I do not have the numbers, but I suspect that the high burn acreage present in the USA pre-1959 was also present in Canada. Here's a few examples of large fires that were not included in this dataset. Miramichi (1825), Saguenay (1870), Black Tuesday (1911), Matheson (1916), The Great Fire (1919, 2.0 *MMhectares*), Haileybury (1922) and the Chinchaga (1950, the largest recorded single fire in North American history, 1.4 to 1.7 *MMhectares*)**

**Note**
**Just over 50% of Canadian fires are human caused.**




**More detail? climatechangeandmusic.com**



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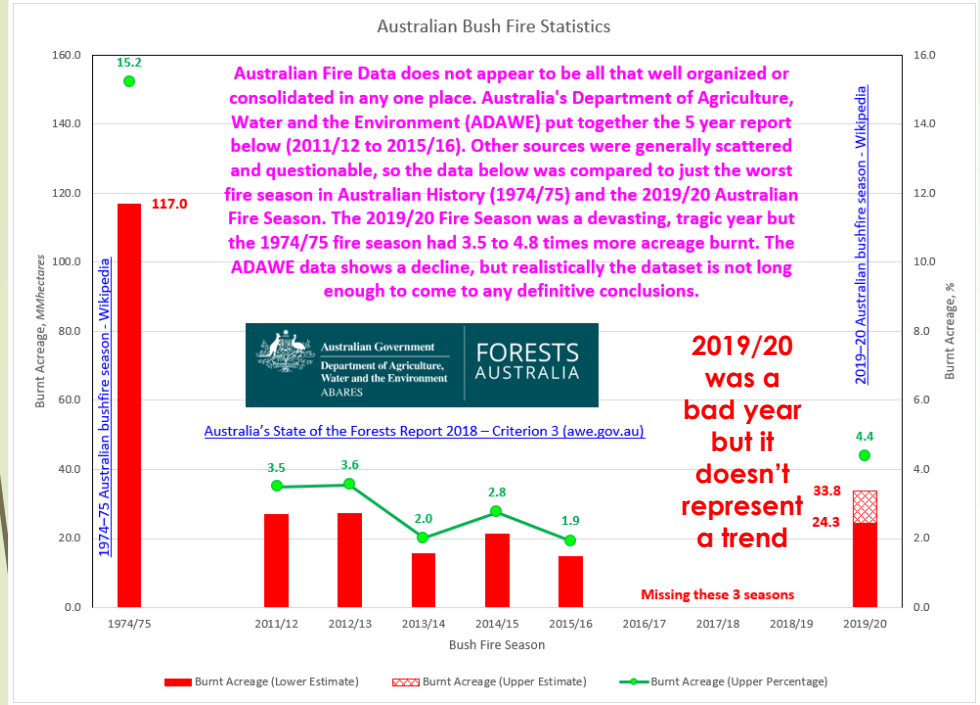
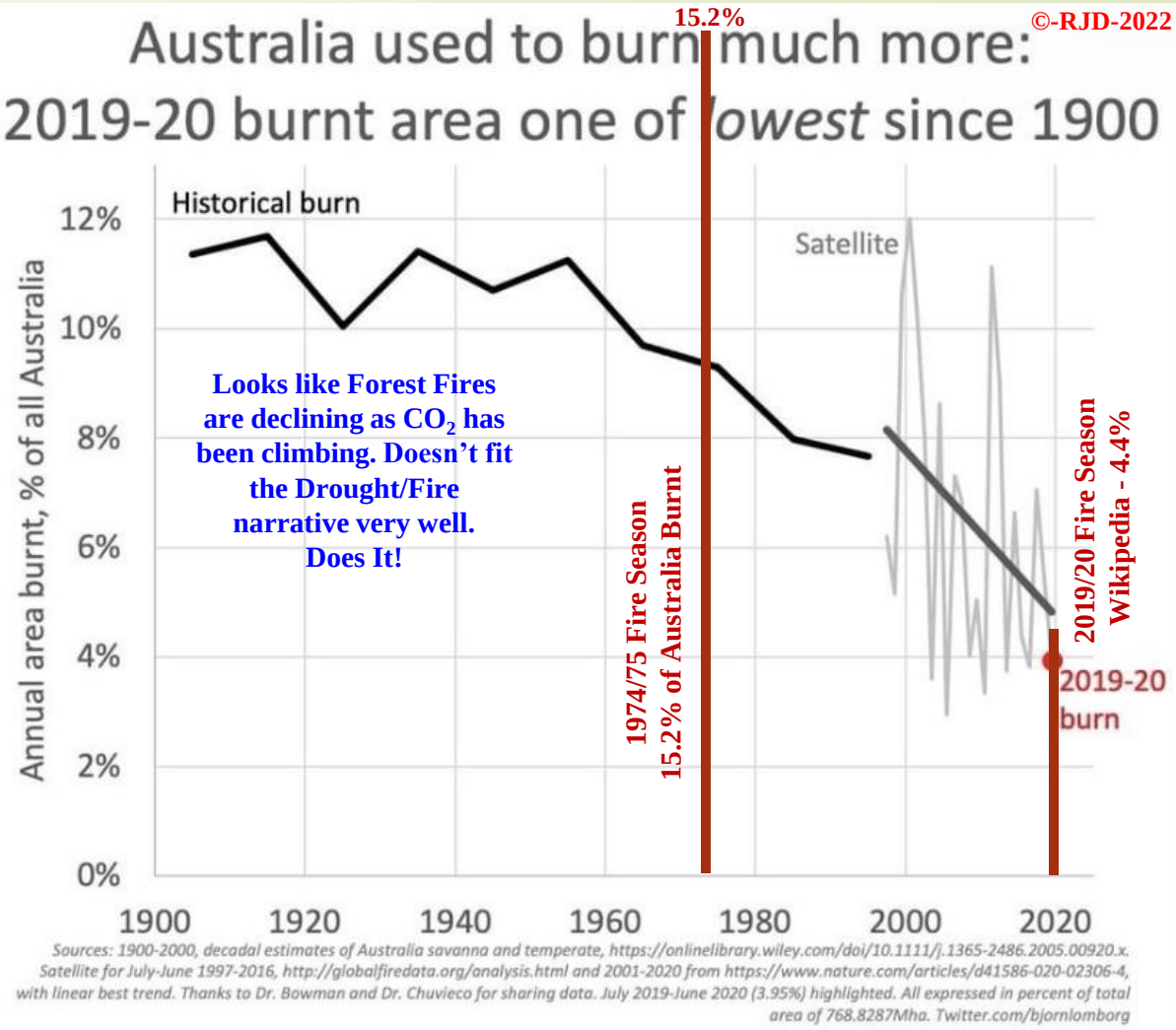
# Forest Fires March 2022 Australia



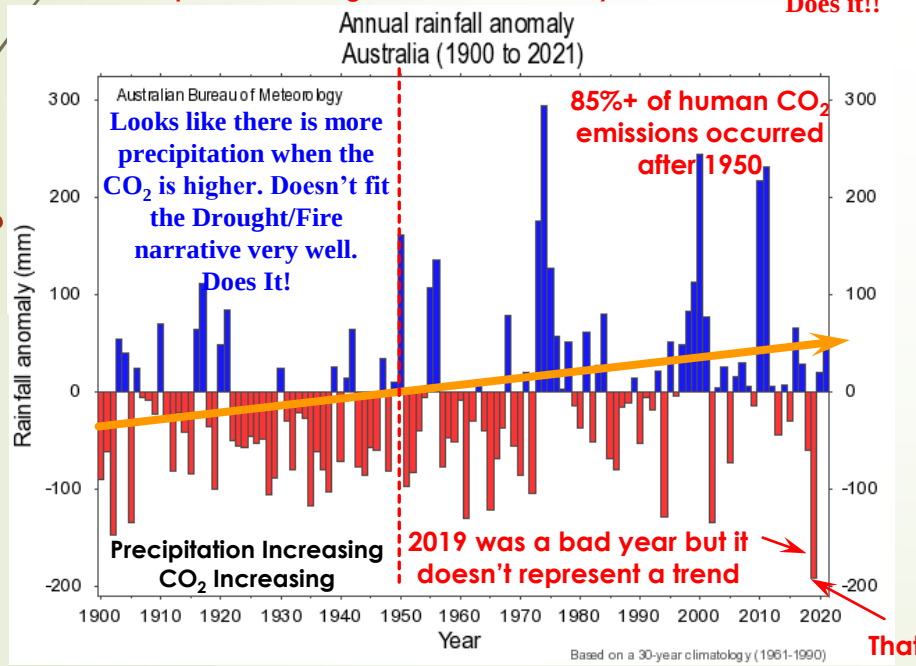

The next time someone tries to link $CO_2$ emissions (i.e.: "Climate Change") and Forest Fires (and someone will), point out the facts!!!

1974/75 was a REALLY bad year!!
15% of Australia burned in 1974, a record year of precipitation.
Does not fit the Drought/Fire narrative very well.
Does it!!




The 2019/20 season although higher than normal was nowhere near a record bush fire season.

http://www.bom.gov.au/climate/history/




## Forest Fires Australia

Precipitation has been increasing significantly since the beginning of the 20th century. 2019 appears to have set a low precipitation record, but one year makes very little difference when it comes to the overall trend. The last two years have had above normal rainfall.

Australia searches were almost useless (so I focused on the few sources that were credible and/or had corroborating sources). The 2019/20 Australian Fire Season produced a continuous "Climate Change" diatribe. Despite the tragic nature of the fires, the acreage burnt was not unprecedented (even in modern times). 1974/75 was not that long ago in climate terms. Australia also had some horrific temperatures, droughts and fires prior to 1900 that are not included in this analysis. The more recent, much quieter 2020/21 and 2021/22 fire seasons must have been uneventful given that the news feed has been relatively devoid of the traditional "Climate Change" fear porn that followed the 2019/20 fire season. $CO_2$ does not appear to be driving the forest fires or drought in Australia.

That drought did not last long?

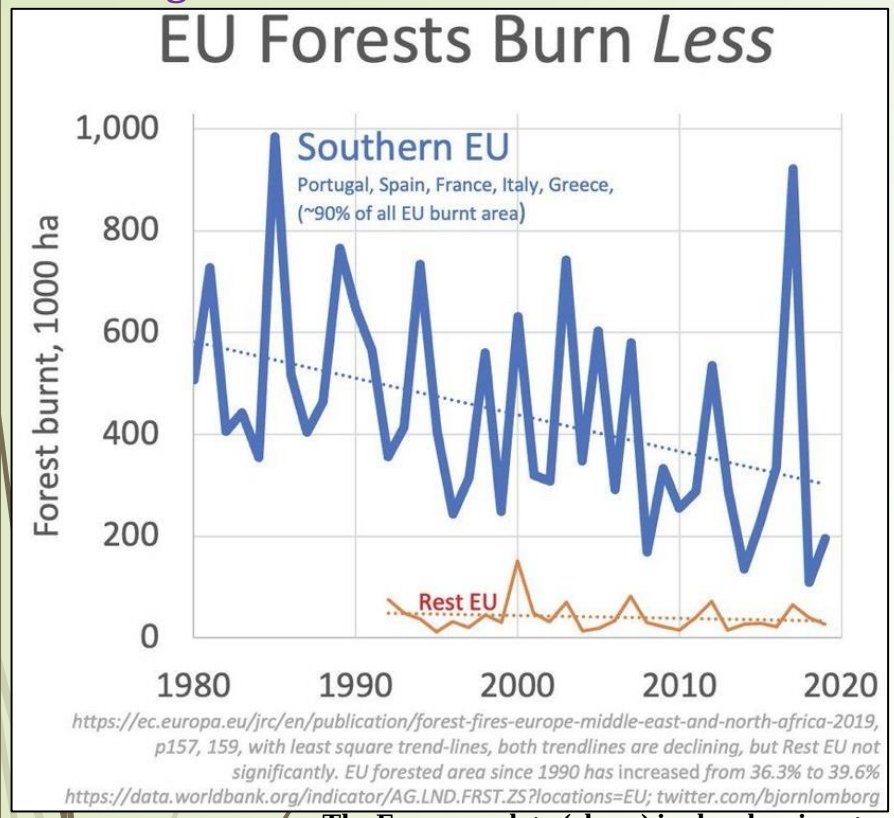
More detail? climatechangeandmusic.com

# Forest Fires - March 2022 – Global

More detail? climatechangeandmusic.com








**Forest Fires Global**

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**The European data (above) is also showing steady declines in burnt acreage since 1980. Is there data pre-1980? Of course, but that data does not appear to be easily accessible or consolidated. The map and plot to the right finalize the global picture. The Global Burned Area (normalized) has been declining steadily since 2003 based on the NASA study completed in 2017. The qualitative look at the world map extends that decline back to 1998 (down 24% over that period). This is a short time period, but the trend is down and the $CO_2$ trend is up. $CO_2$ is not driving the trends in burn acreage. Will the trend continue down to the present? Most likely since the temperatures have declined significantly from the peak temperatures measured in late 2015/16. The February 2022 UAH Lower Troposphere Temperature Anomaly was back down to the 1991 to 2020 base (0.0 °C). Temperature Anomalies have dropped 0.74 °C since the February 2016 peak.**

**North American Burned Area has some small areas that show a minor upward trend. Overall, not much change but consistent with the data presented earlier.**

**The Eurasian land mass has a few small areas of both positive and negative trends. Overall, they appear to cancel one another out.**

**In South America, the negative trends appear to be more widespread than the positive trends. Burned areas have decreased over the 1998-2015 period.**

**African negative trends dominate the positive trends on this continent. Burned areas have decreased significantly over the 1998-2015 period.**

**Australian negative trends also dominate the positive trends on this continent. Burned areas have decreased significantly over the 1998-2015 period.**