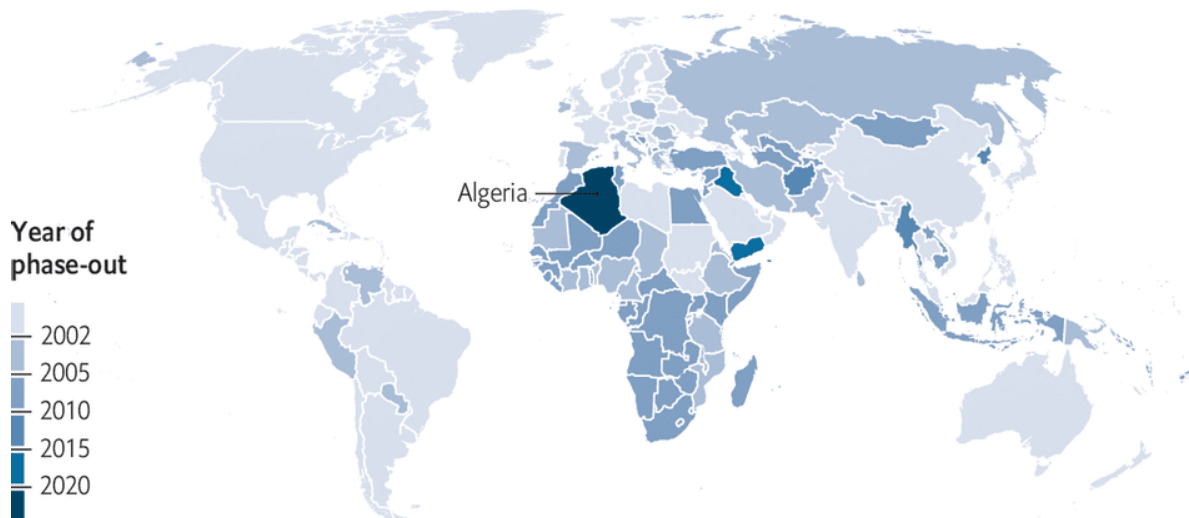


Lead oil research document:

Bad to the last drop

The end of leaded petrol



Source: United Nations Environment Programme

The Economist

<https://www.economist.com/graphic-detail/2021/09/01/leaded-petrol-is-mostly-no-more>

Source: <https://www.oecd.org/env/ehs/risk-management/1937036.pdf>

<https://www.dailymail.co.uk/sciencetech/article-9940309/Leaded-petrol-runs-gas-century-warnin-gs-UN.html>

<https://stratasadvisors.com/Insights/2021/08302021-Tribute-Elimination-Leaded-Gasoline-World-wide-Algeria>

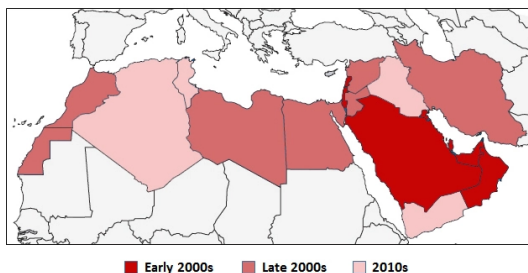
<http://www.nzdl.org/cgi-bin/library?e=d-00000-00---off-0envl--00-0----0-10-0---0---0direct-10---4--0-1--11-en-50---20-about---00-0-1-00-0-4---0-0-11-10-0utfZz-8-00&cl=CL1.7&d=HASH015033a1eb95f875e716a2ca.4.4.3>=1>

<https://www.epa.gov/sites/default/files/2015-09/documents/pcfv-eval-final-report.pdf>

<https://stratasadvisors.com/Insights/2018/050118-Global-Overview-Outlook-GFS>

https://www.worstpolluted.org/projects_reports/display/66

Approximate Date of Leaded Gasoline Phaseout



<https://www.motherjones.com/kevin-drum/2016/12/prediction-terrorism-middle-east-will-decline-half-between-2020-and-2040/>

<https://documents1.worldbank.org/curated/en/627231468764982874/pdf/multi-page.pdf>

<https://stratasadvisors.com/Insights/2021/08302021-Tribute-Elimination-Leaded-Gasoline-World-wide-Algeria>

<https://wedocs.unep.org/bitstream/handle/20.500.11822/17541/leadphaseoutreport.pdf?sequence=1>

<https://books.google.pl/books?id=UQ-vhkW55-sC&pg=PA17&lpg=PA17&dq=Sweden+lead+gasoline&source=bl&ots=QOnwHhZrTc&sig=ACfU3U24WEECnJke9n1kuRLFzGFxWtizww&hl=en&sa=X&ved=2ahUKEwiy27XYvJD0AhVkoosKHZH4BNEQ6AF6BAgFEAM#v=onepage&q=Sweden%20lead%20gasoline&f=false>

<https://books.google.pl/books?id=XSUS234DhEsC&pg=PA75&lpg=PA75&dq=bolivia+introduced+unleaded+gasoline&source=bl&ots=HkOD6Tp3pT&sig=ACfU3U29SIfwOUXyipoWi1rFqgW9X6gvqA&hl=en&sa=X&ved=2ahUKEwj96PG3qpj0AhVOlosKHZpfCkkQ6AF6BAgWEAM#v=onepage&q=bolivia%20introduced%20unleaded%20gasoline&f=false>

1959: Soviet Union beginning

1972: Canada begin

1975: Japan begin, U.S. begin

1982: Brazil introduced

1985: Australia, Germany beginning first in Europe beginning

1986: Japan; Austria, Mexico, Italy, New Zealand, Taiwan - beginning

1988: Sweden, Ecuador (beginning)

[http://www.columbia.edu/itc/sipa/envp/louchouart/courses/env-chem/Pb-Rise&Fall\(Nriagu1990\).pdf](http://www.columbia.edu/itc/sipa/envp/louchouart/courses/env-chem/Pb-Rise&Fall(Nriagu1990).pdf)

<https://gupea.ub.gu.se/bitstream/2077/2839/1/gunwpe0019.pdf>

1989: Austria beginning

1990: Canada, Bermuda; Jamaica introduced

1991: Colombia, Brazil, Guatemala, Thailand introduced

1992: Slovakia begin

1993: Austria, South Korea

<https://www.annualreviews.org/doi/pdf/10.1146/annurev.eg.20.110195.001505>

1994: Finland

<https://sci-hub.ee/10.2307/3433336>

1995: Denmark, Sweden, Slovakia, Bolivia

1996: Germany, U.S.A., New Zealand, Guam, Thailand

Strona 47: market share

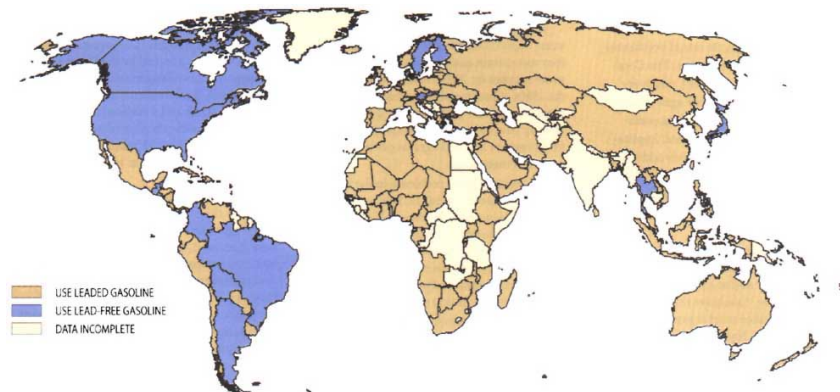
1996 Lead Phase-out Status

Americas led the phase out of leaded gasoline



1997: Norway, Ecuador start

1998: Singapore, Argentina, Mexico



http://www.meca.org/galleries/files/111698_lead.pdf

1999: Bangladesh, Hong Kong, Sri Lanka, Hungary, Portugal

Box 1. Lead-free countries and jurisdictions, 1999

Antigua and Barbuda
Argentina
Austria
Bahamas
Bermuda
Bolivia
Brazil
Canada
Columbia
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
Germany
Guatemala
Haiti
Honduras
Hungary
Japan
Mexico
Nicaragua
Norway
Saba
Slovak Republic
St. Eustasius
Sweden
Thailand
United States

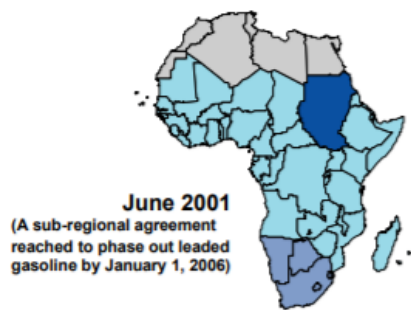
2000: Monaco, Ireland, China, India, Malaysia, Nepal, Philippines, France, Taiwan, Trinidad and Tobago, Switzerland, UK, Jamaica, Poland

2000 Lead Phase-out Status

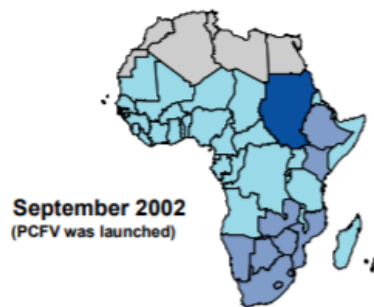
Europe and parts of Asia Pacific "switched" out leaded gasoline by this time



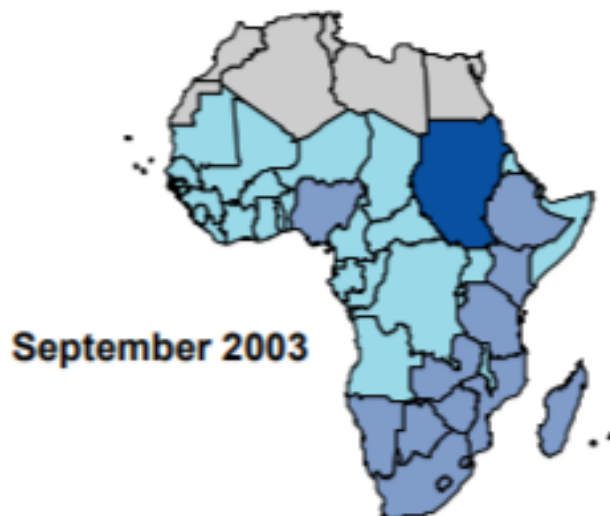
2001: Saudi Arabia, Pakistan, Vietnam, Czechia, Slovenia, Spain, Chile, Ecuador



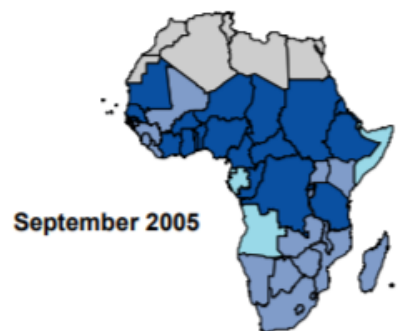
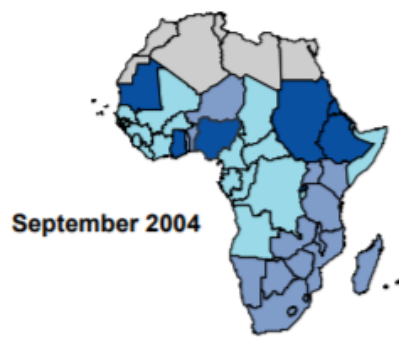
2002: Australia, Greece, Italy



2003: Iran, UAE, Russia, Ukraine



2004: Peru, Uruguay



2005: Venezuela, Romania

2006: Indonesia, Turkey, Croatia, South Africa



2008:

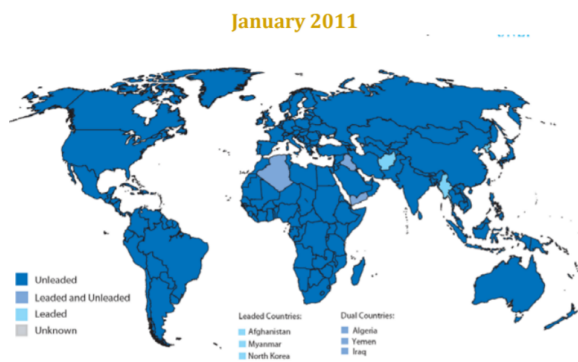


2009: Bosnia



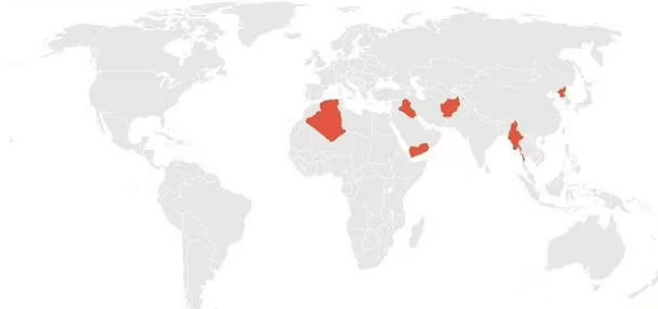
2010: Serbia

2011:



2012:

Countries still using leaded petrol in 2012



2016: Afghanistan, Myanmar, North Korea

2018: Iraq, Yemen

2021: Algeria