

# **Petition for Summary Dismissal of Petition for Listing and Rule-making Under Section 112 of the Clean Air Act to Establish CO<sub>2</sub> as Hazard Air Pollutant and to Set National Emission Standards for CO<sub>2</sub>**

On April 3, 2019 dozens of environmental groups led by Food & Water Watch filed a Petition seeking a declaration that CO<sub>2</sub> and five other greenhouse gasses be regulated as Hazardous Air Pollutants (HAPs) under section 112 of the Clean Air Act. Such a rigorous and restrictive regulatory regime, if applied, would mean the end of Coal combustion for electricity production in the United States. It also would become the legal tool available under federal law, with no further legislation needed from Congress, for ongoing EPA regulatory activism designed to restrict and ultimately eliminate oil and natural gas use as well. No need for the Green New Deal, in other words.

EPA formally refers to HAPs as Air Toxics, so we have the proposition that an agency of the United States is being asked by the environmental community to find that CO<sub>2</sub>, a benign gas required for all life on earth, is in fact an Air Toxic to be eliminated under the laws of the United States. The audacity and implicit nihilism of this request is directly attributable to the EPA Endangerment and Cause or Contribute Findings that CO<sub>2</sub> is a threat to “current and future” generations of people caused by the robust use of fossil fuels, led by coal.

This Petition is submitted in response to the Food & Water Watch CO<sub>2</sub> Air Toxic Petition referenced above. For the reasons stated and substance presented we ask that the Petition be summarily dismissed. At the same time we ask that the CO<sub>2</sub> Endangerment Findings themselves be declared as no longer in effect given the passage of time and the newly discovered evidence presented. This request is based on the decade of human development metrics over the last 10 years showing a complete repudiation of the basis for and existence of the CO<sub>2</sub> Endangerment Findings proposed in 2009, effective in 2010.

As we will show below, during this 10 year period time, coal combustion for electricity with attendant CO<sub>2</sub> emissions from its combustion continue to benefit the health and well-being of all people, everywhere, in the developed and developing world alike. The continuing and attendant massive human benefits from such use of coal completely contradict the conclusions reached by EPA 10 years ago that continued CO<sub>2</sub> emissions from fossil fuels use is a “current” threat to people today.

This Petition for Summary Dismissal is presented by the *Center for the Study of Carbon Dioxide and Global Change* (CO<sub>2</sub> Center); on March 9 of this year the CO<sub>2</sub> Center filed a [Petition for Repeal Of EPA’s 2009 Endangerment Finding](#), 74 FR 66,496. The content of the previously filed Petition is incorporated here by reference and in further support of our Petition in this document,

including the requested relief.

In this Petition and document, we will use coal as the poster child for all fossil fuels, given coal's importance to the development of our country, its future potential in the United States, and coal's primacy for electricity generation in China, Japan, India, ASEAN Countries and Africa. In the US coal to electricity has suffered greatly in large part because of EPA CO<sub>2</sub> Endangerment, power plants have been closed and are closing, but the remaining coal fleet is absolutely needed for our electricity future.

In the EU countries they have hurt themselves and their economies because of the phase-out of coal use due to its carbon content and CO<sub>2</sub> profile when combusted. This unfortunate state of affairs has resulted in extremely expensive electricity in Europe, hurting real people in real time while destroying their manufacturing base. Nonetheless because of coal for electricity primacy in China, Japan, India and the developing world, coal remains the largest source for life giving electricity attendant with life giving CO<sub>2</sub> emissions. This reality on its face mandates dismissal of the Air Toxic Petition and repudiation of EPA CO<sub>2</sub> Endangerment

This Petition and document starts with a specific response to the Water Watch Air Toxic Claim that CO<sub>2</sub> is an Air Toxic; the balance of the Petition will address the application of the National Environmental Policy Act (NEPA) in a presentation prepared by Dr. Frank Clemente. The presentation includes a NEPA discussion and then an update of Dr. Clemente's work in years past for the World Coal Association, Peabody Energy and the Coal Industry Advisory Board to the International Energy Agency.

The Petition in its entirety respectfully requests summary dismissal of the Air Toxic Petition and negation of the EPA CO<sub>2</sub> Endangerment Findings for the reasons stated.

## **1. CO<sub>2</sub> is no Air Toxic**

The Water Watch, Air Toxic Petition makes myriad claims to negative human health risks from current and growing atmospheric CO<sub>2</sub> content and references numerous sources in support of the claim. But the Air Toxic Petition makes no specific claims of "who, what, where, how, why and when" showing CO<sub>2</sub> is toxic as such and/or at what level CO<sub>2</sub> in the atmosphere becomes "toxic". Nor do any of the studies cited make such showings including EPA's work.

Instead the claims, like the studies, are broad and conclusory computer modeled conjecture of harm and damages attending future increases in atmospheric CO<sub>2</sub> concentrations from current emissions without any specificity. Such models are also known to be flawed and flux adjusted, that are running hot and are inconsistent with hard data from satellites and weather balloons.

Nor does the Air Toxic Petition ever describe what CO<sub>2</sub> actually is and the importance of CO<sub>2</sub> in its role in sustaining Earth's biosphere, agriculture, all living things and human life itself. For sure there are many agencies that have concern over future CO<sub>2</sub> emissions, but there is no discussion by any of the studies cited as to CO<sub>2</sub> as such being "toxic", harmful or bad, the plain English definition of toxic.

EPA knows what an Air Toxic is. The EPA homepage has a specific section “About Urban Air Toxics” with 30 urban air toxics listed and specific air toxics discussed in depth. Congress knows what an Air Toxic is. As EPA points out “the Clean Air Act identifies 187 hazardous air pollutants (HAPs) that EPA is required to control to protect public health ...”

You will find no listing of CO<sub>2</sub> by either Congress or EPA as it would be scientifically illiterate to do so and to make such a specious claim. Don’t take our word for it. The following is from the Ontario, Ministry of Agriculture, Food and Rural Affairs:

“Carbon dioxide is an essential component of photosynthesis. Photosynthesis is a chemical process that uses light energy to convert CO<sub>2</sub> and water into sugars in green plants. Sugars, are then used for growth within the plant, through respiration. The difference between the broad rate of photosynthesis and the rate of respiration is the basis for dry matter accumulation (growth) in the plant. In greenhouse production the goal of all growers is to increase dry matter content and economically optimize crop yield. CO<sub>2</sub> increases productivity through improved plant growth and vigor. Some ways in which productivity is increased by CO<sub>2</sub> include earlier flowering, higher fruit yields, reduced bud absorption and roses. Improved stem strength and flower size. Growers should regard CO<sub>2</sub> is a nutrient. [Carbon Dioxide in Greenhouses (12,02,2016)].”

Some Air Toxic; an “essential component” required to feed humanity and sustain human life itself!

A quick check of the literature will show that commercial greenhouse operators raise atmospheric CO<sub>2</sub> levels of 400 ppm up to 1500 ppm for optimum growth results. These operators of course work freely in this environment all day long while providing the food we all need to survive.

## **2. EPA’s CO<sub>2</sub> Endangerment, National Environmental Policy Act (NEPA) and the Human Environment**

In all the words used by EPA in establishing the 2009/2010 CO<sub>2</sub> Endangerment Findings where CO<sub>2</sub> is deemed “a current” threat to human health and welfare, the concept of the “Human Environment”, as used in NEPA was never discussed nor considered in any context. EPA is charged by Congress in administering NEPA, it is our environmental Magna Carta, yet the law and the application of it was ignored.

The words “human environment” as used in NEPA obviously have meaning. In NEPA Congress could have stated simply “environment”, or “natural environment, but it used “human environment”. The backdrop for those words comes from environmental theory in vogue then as captured in the Stockholm Declaration of the United Nations Conference on the Human Environment, June 1972, three years after the passage of NEPA. The United States is a signatory to the Declaration.

Dr. Clemente’s work that follows, applies the NEPA “human environment” concept as defined in Stockholm in a US led international agreement to coal for electricity, oil and natural gas. The

presentation shows that using coal, oil and natural gas, resulting in CO<sub>2</sub> emissions, increasing atmospheric CO<sub>2</sub> content and a Greening of Planet Earth, has created Modernity itself in all aspects.

At the same time Dr. Idso's work in our [March 9 repeal petition](#), shows how the beneficial use of fossil fuels by the human community resulting in ongoing increase in atmospheric CO<sub>2</sub> content, benefits humans, agriculture, the biosphere and therefore wildlife at the same time. Life itself through fossil fuel use, led by coal.

# Coal Based Electricity Improves the Human Environment

**“Are not poverty and need the greatest polluters?” Indira Gandhi --- United Nations Conference on Human Environment, Stockholm 14th June, 1972\***

# National Environmental Policy Act:

1. Signed into law by President Nixon in 1970
2. Establishes the “human environment” as the focus for all federal agencies in exercising regulatory authority for development of our natural resources
3. Requires the government to prepare environmental impact statements before taking major federal action that impacts the “human environment”
4. The U.S. entered into an international agreement in Stockholm in 1972 defining the “human environment”



Source: <https://www.epa.gov/nepa>

# Declaration of the United Nations Conference on the Human Environment Stockholm June 1972

“Man is both creature and molder of his environment,...man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights, the right to life itself... The protection and improvement of the **human environment** is a major issue which affects the well-being of peoples and economic development throughout the world

...Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sanitation...Of all things in the world, people are the most precious. It is the people that propel social progress, create social wealth, develop science and technology ...”

# Since Stockholm the United Nations has stressed the importance of the human environment in formulating policy

- 1972--- “Of all things in the world, people are the most precious. It is the people that propel social progress, create social wealth, develop science and technology (Stockholm)
- 1992 --- “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life” Rio
- 2009--- “Social and economic development and poverty eradication are the first and overriding priorities of developing countries” (Copenhagen)
- 2012--- “Eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development” Rio
- 2018-- “Reducing the global disparity in energy is key to reducing income inequalities, gender inequalities and inequalities in other dimensions such as rural/urban income disparities. (Policy Brief)

**“Modern energy services are the key to changing people’s quality of life” UN Secretary-General Ban Ki-moon, June 2014**



# Measuring the Human Environment

Stockholm Parameters and Some Operational Measures from U.N. World Indicators

- **The right to life itself...(life expectancy, infant mortality,)**
- **Adequate food...(Underweight children )**
- **Health---(Stunting, Immunization, Tuberculosis)**
- **Sanitation...(clean water, access to sanitation facilities)**
- **Economic development (GDP, per capita income)**
- **Education... (school enrollment, female literacy)**
- **Quality of Life (HDI, well being indices)**

# The Overwhelming Importance of Electricity in Human Development

- **1936 – *The New York Times*:-** “Nothing in modern life so raises the standard of living of high and low income groups as the use of electricity”
- **2000 -- National Academy of Engineering --** “The top-rated improvement to the life of earthlings in the 20th Century was electrification”
- **2010 - *The Hindu (India)* --** “Electricity is one of the most important blessings that science has given to mankind”
- **2017– World Bank—**”The world is not moving fast enough to reach its universal electricity access goal by 2030”
- **2019 -- International Energy Agency** “Electricity security is vital to well-functioning modern societies and economies”

Sources :*The New York Times*, Sept. 6, 1936, p.E7. Retrieved from Proquest Historical Newspapers (1851-2007).

<https://www.nae.edu/7475/TheEngineeredCentury>; <https://www.thehindu.com/features/kids/Importance-of-electricity/article16544961.ece>;

<https://www.worldbank.org/en/topic/energy/publication/sear>; <https://www.worldbank.org/en/news/feature/2018/04/18/access-energy-sustainable-development-goal-7>;

<https://www.iea.org/areas-of-work/ensuring-energy-security/electricity-security>

# Electricity Provides the Mechanism To a Cleaner Environment for All – Indoor and Out

- **Beneficial electrification** – improving the quality of life through electricity
- **Ecowatts** – using more kilowatts for economic growth and a cleaner environment
- **Electro-technologies** – applications which avoid emissions by replacing biomass, oil and gas with clean coal-based electricity



**4 Million die annually  
from household air  
pollution\***

# Electricity Means Cleaner Water and a Better Human Environment



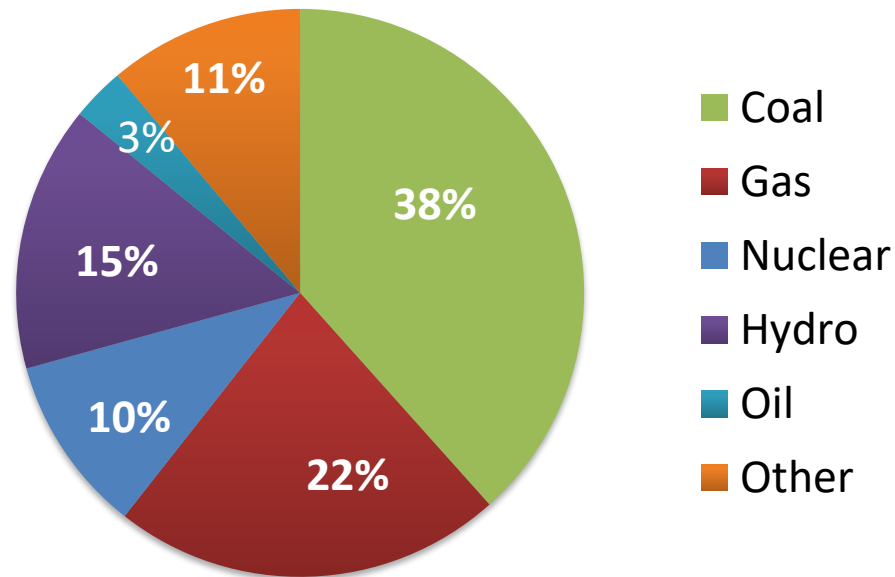
**“Water purification plants around the globe typically are built near a power plant and population centers because of high energy needs for reverse osmosis filtration and associated pumping to residents and businesses,” Safe Drinking Water, Clean Technica, April 15, 2014**

**Coal provides over 40% of the electricity in the developing world**

# Coal as the Continuing Cornerstone of Global Electricity

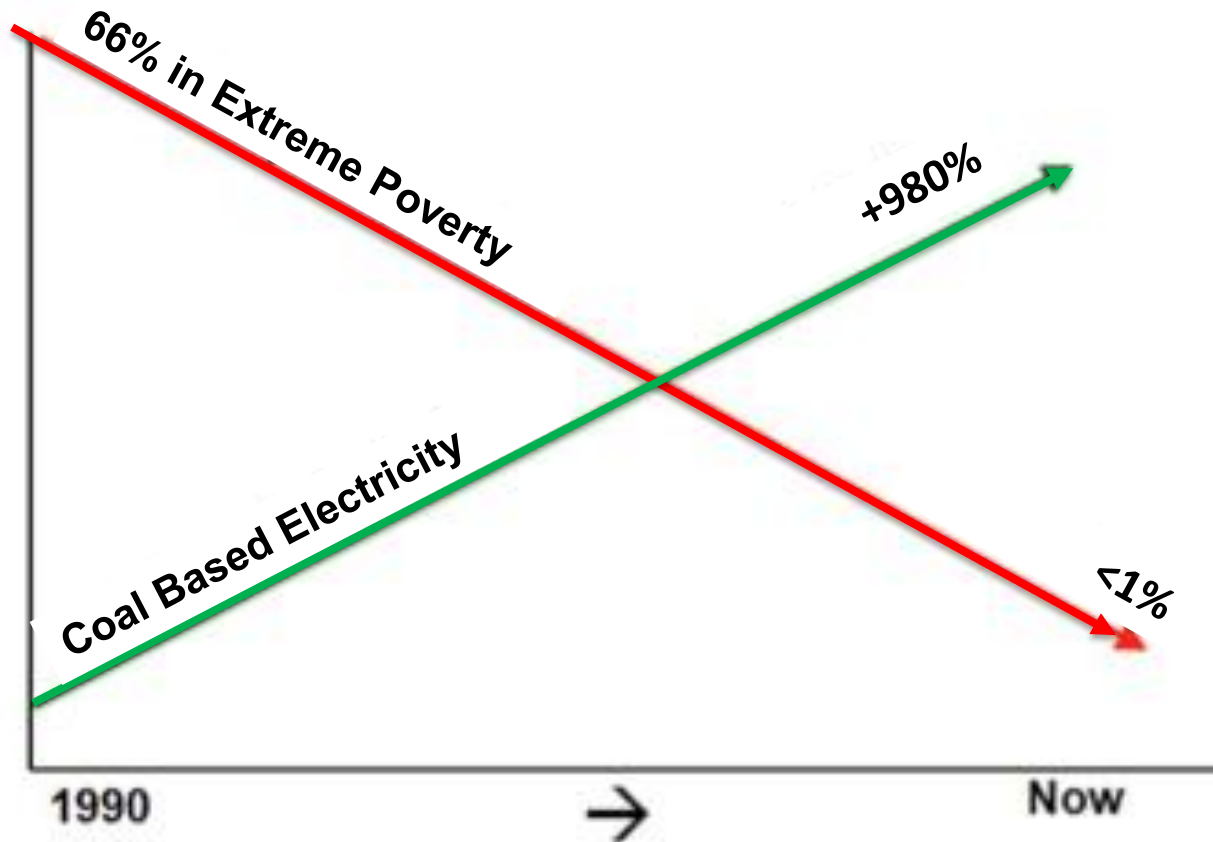
**“ It remains the backbone of electricity generation and has been the fuel underpinning the rapid industrialization of emerging economies, helping to raise living standards and lift hundreds of millions of people out of poverty,” Fatih Birol, Chief Economist, International Energy Agency, 2013\*”**

**Global  
Electricity  
Generation  
2018**



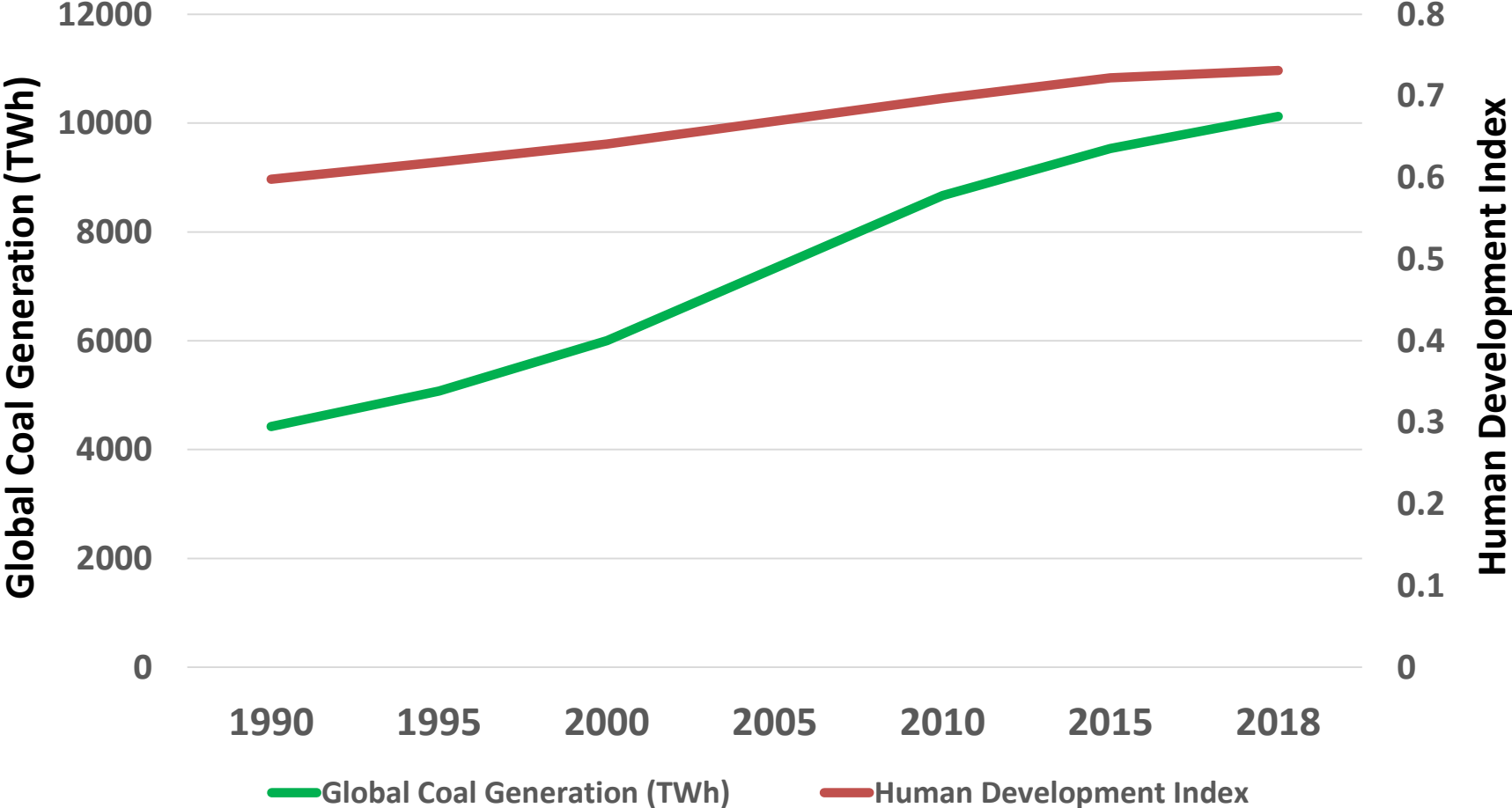
**Fatih Birol is now Executive Director of the International Energy Agency. Since he made the above statement in 2013 coal-based generation increased from about 9,200 TWh to 10,123 TWh in 2018 and approximately 500 million people have gained access to electricity for the first time.**

# Out of Poverty: China Used Coal-Based Electricity to Lift 850 Million People out of Poverty



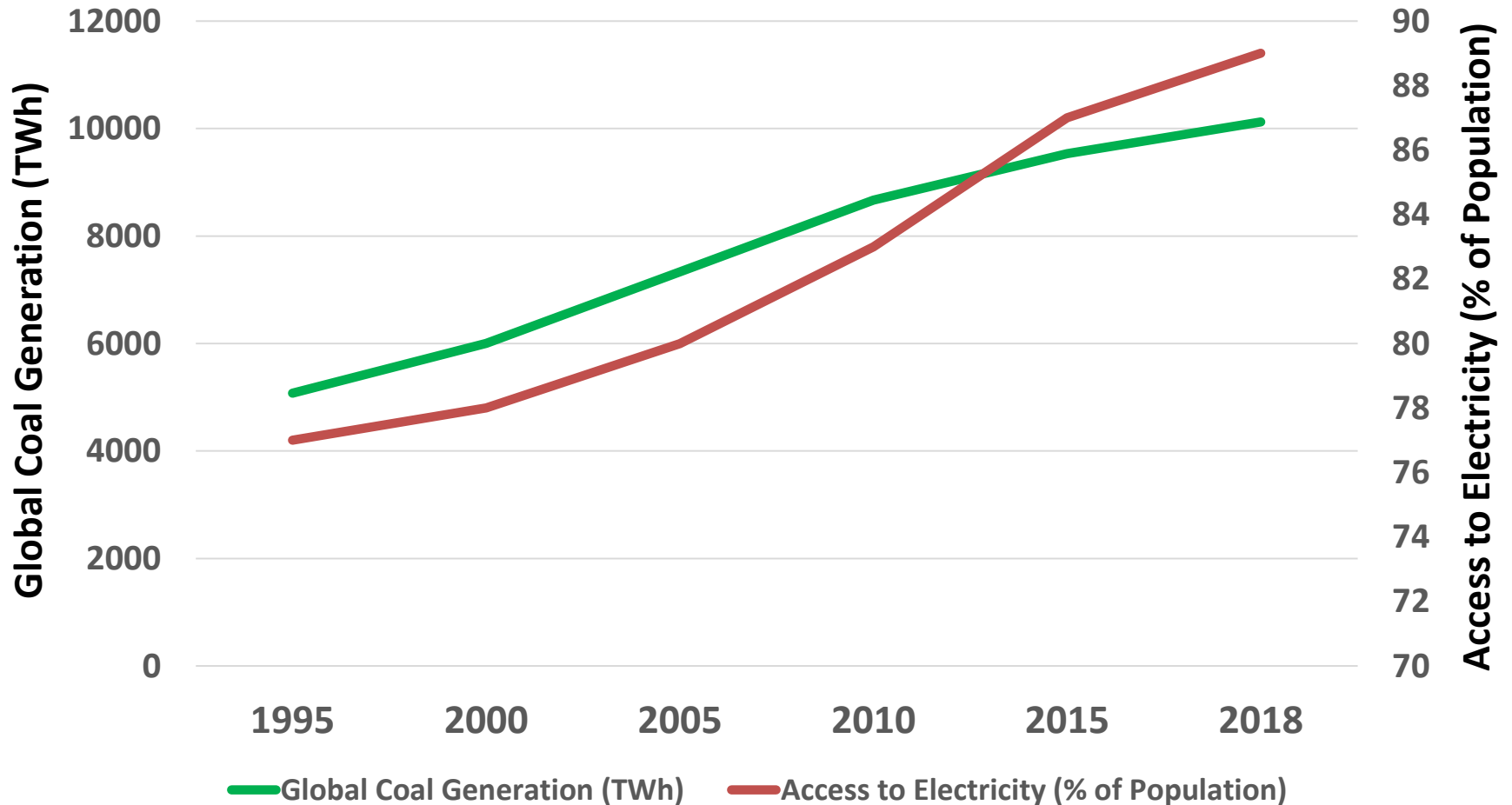
**“Coal has underpinned China’s massive and unprecedented growth in output, fuelling an economic miracle that has helped to improve the standard of living in many countries,” International Energy Agency**

# Global Coal Generation and Human Development: The Positive Impact of Coal



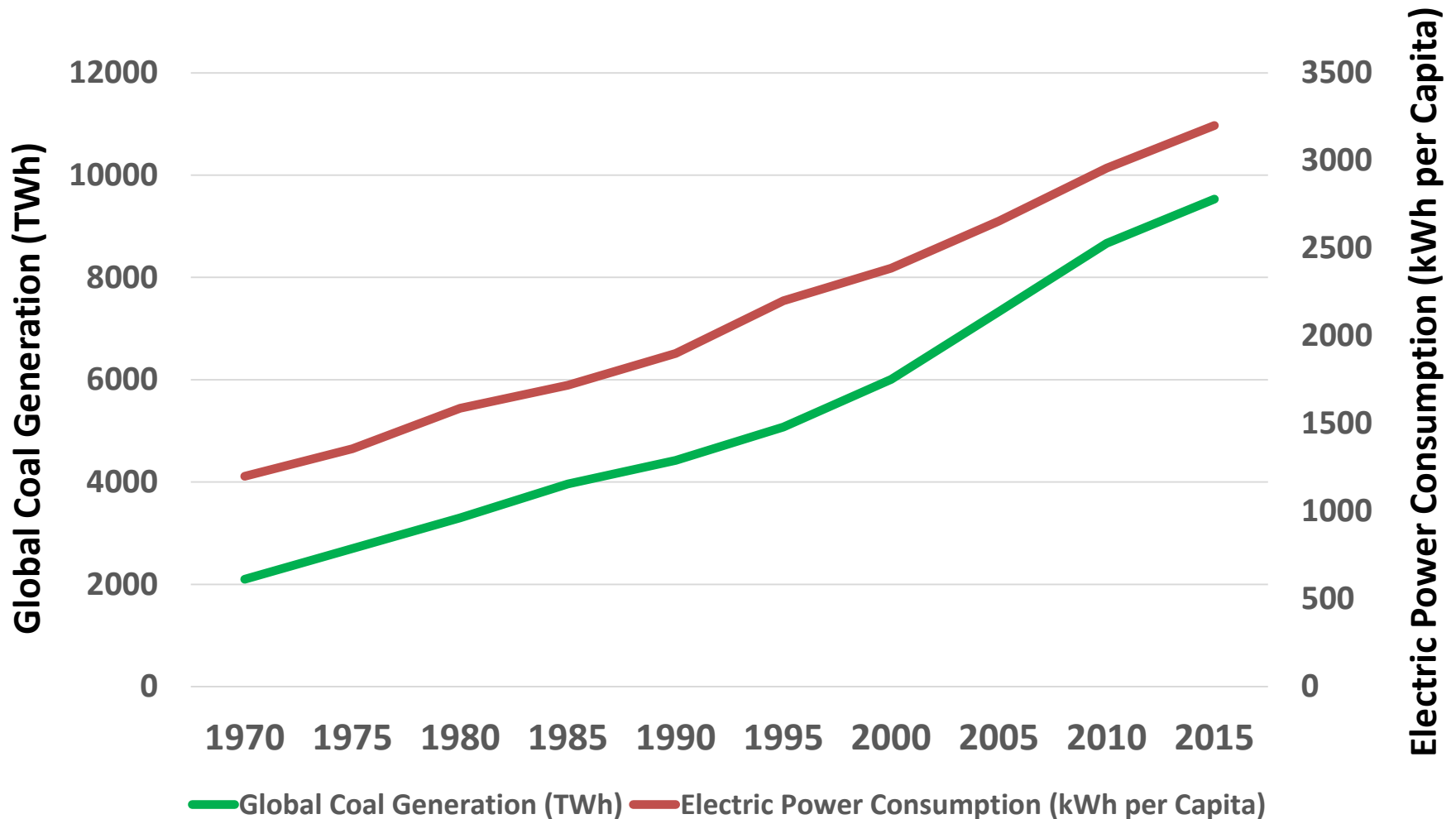
Source: <http://hdr.undp.org/en/content/table-2-human-development-index-trends-1990%E2%80%932018>

# Global Coal Generation and Access to Electricity

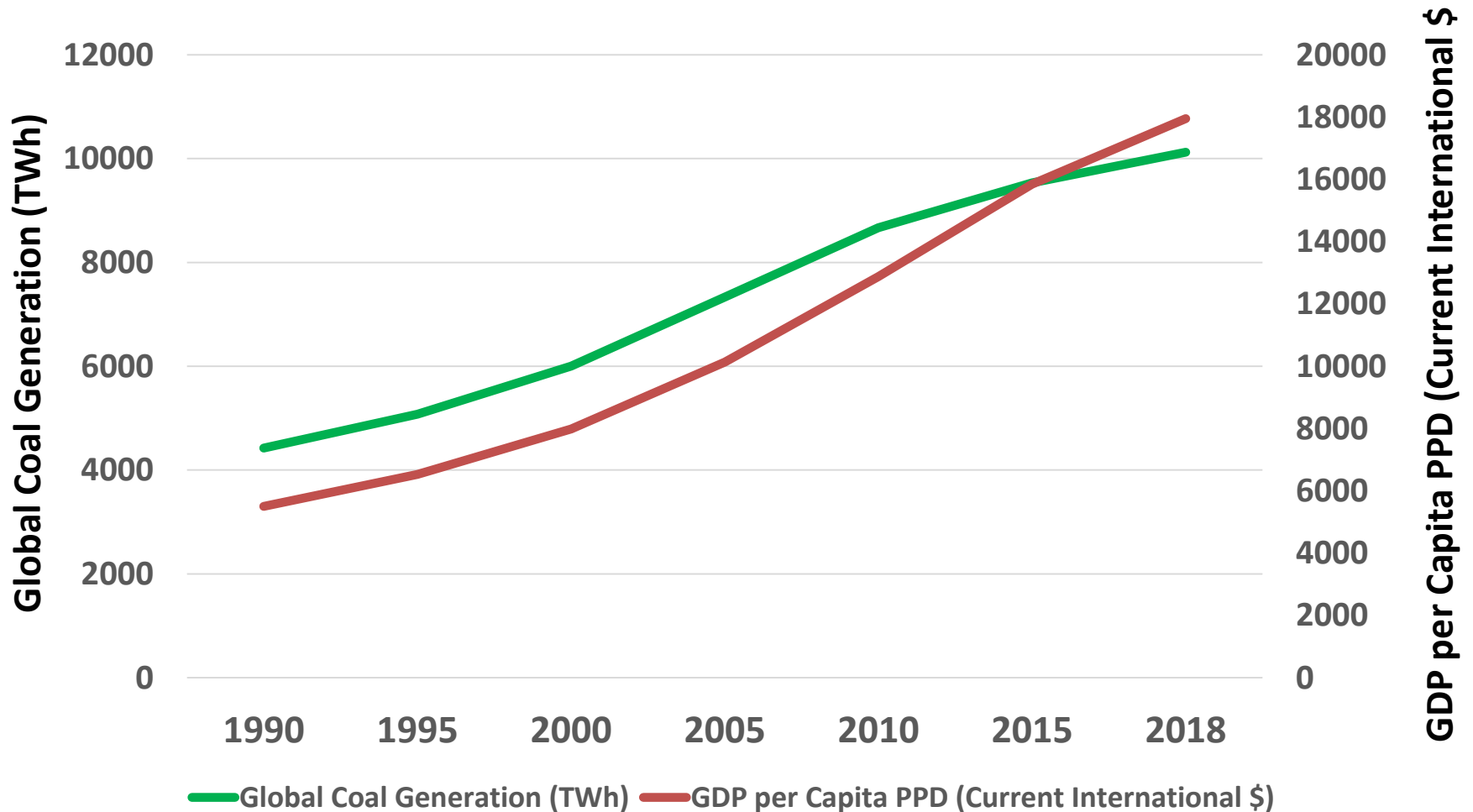




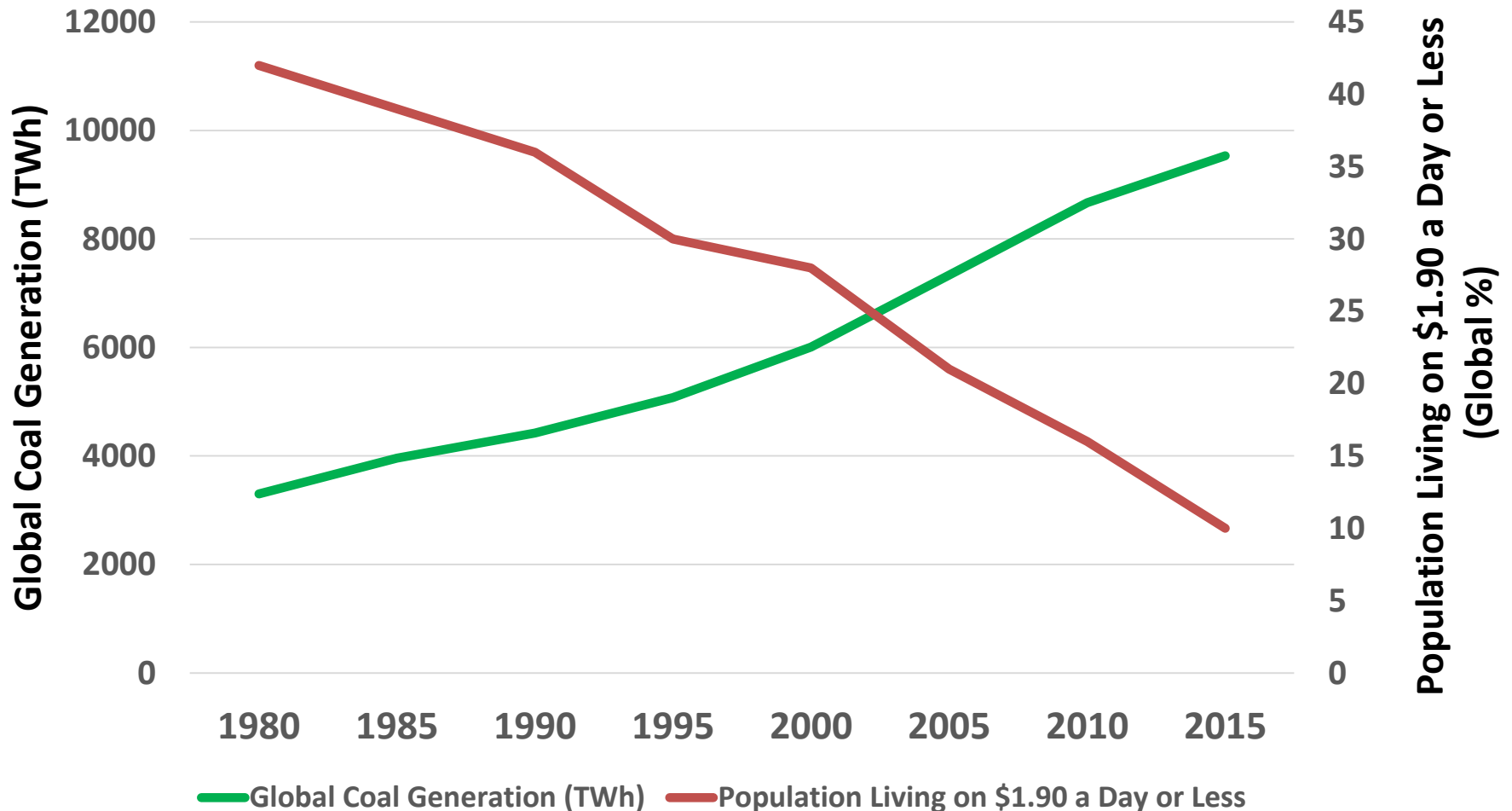
# Global Coal Generation and Electric Power Consumption Per Capita (kWh)



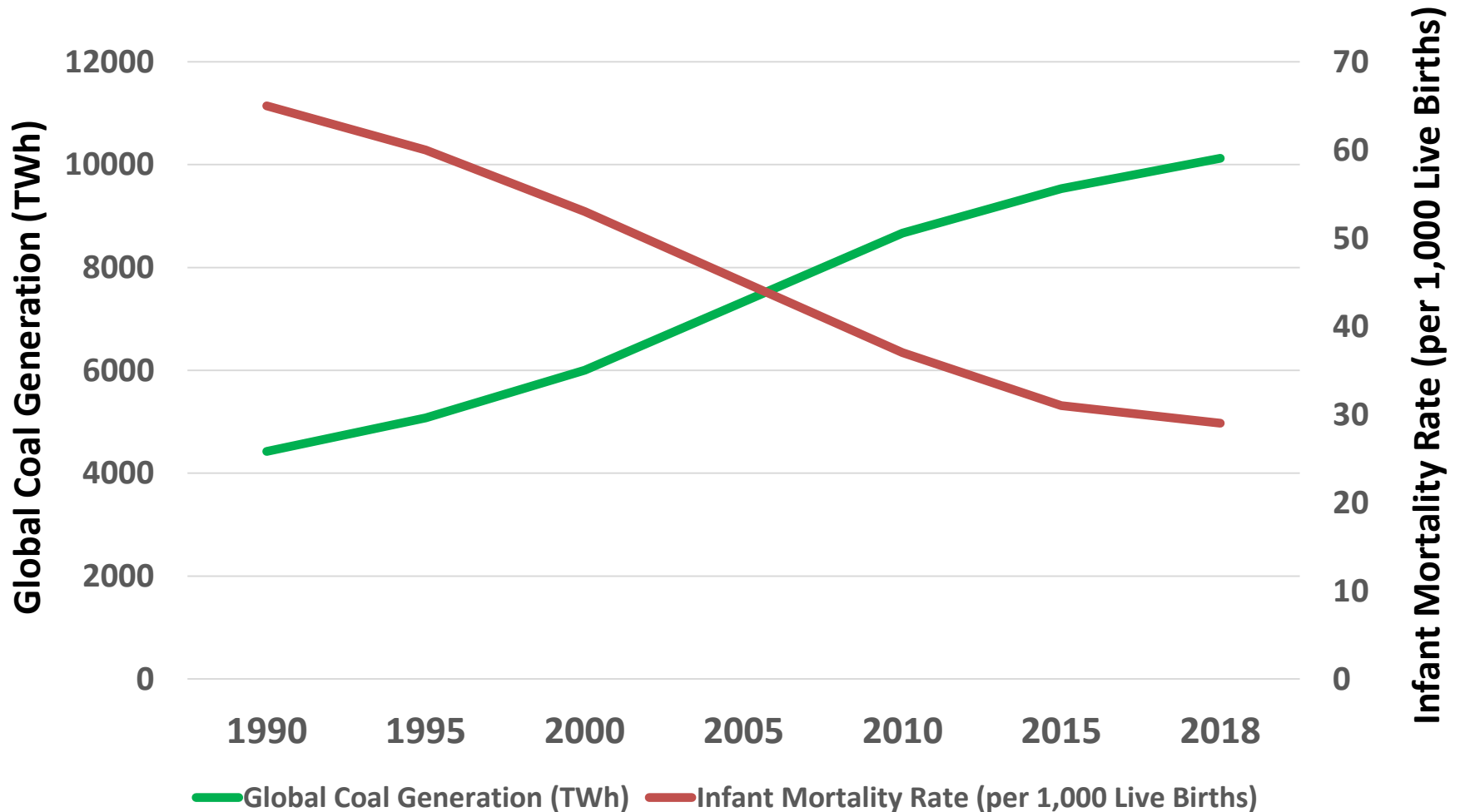
# Global Coal Generation and GDP per Capita



# Global Coal Generation and People Living on < \$1.90 per Day

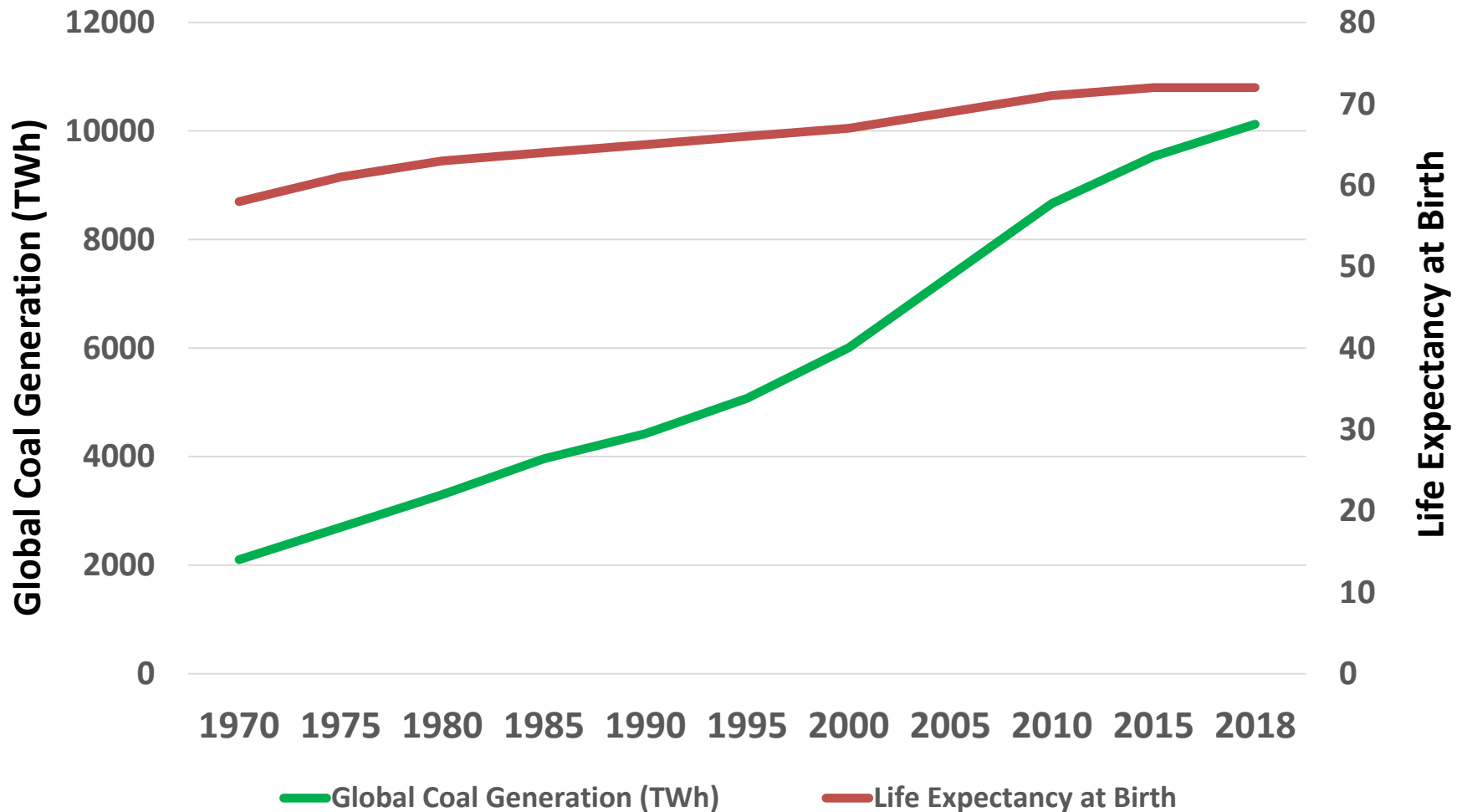


# Global Coal Generation and Infant Mortality Rate



Source: <https://data.worldbank.org/indicator/SP.DYN.IMRT.IN?view=chart>

# Global Coal Generation and Life Expectancy



Source: <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?view=chart>

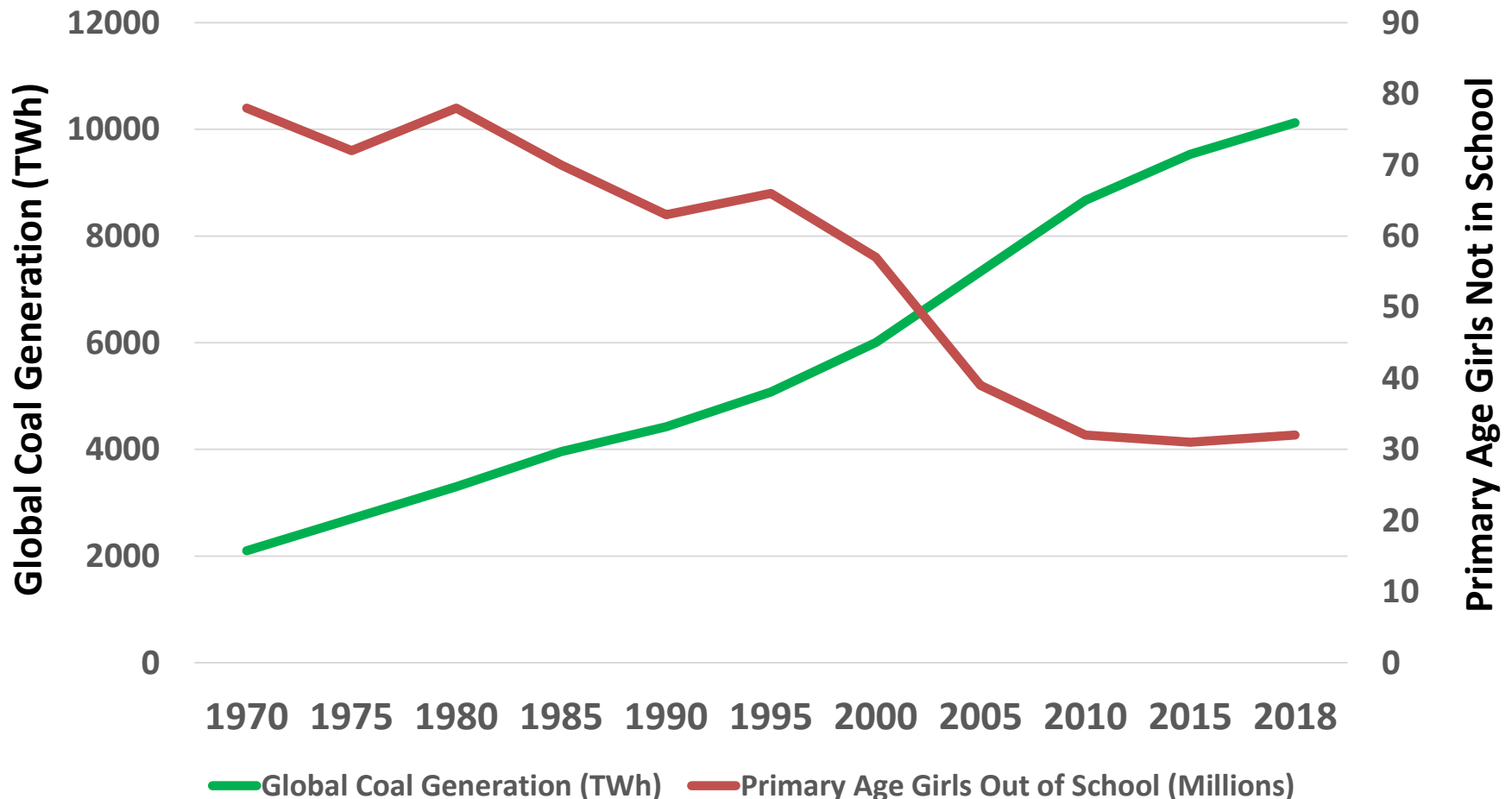
# **Not surprisingly, women and girls are the greatest victims of energy poverty**



**According to UN research, in sub-Saharan Africa women and girls spend over 40 billion hours a year collecting water and wood—the person power equivalent of building 5,000 Empire State buildings.**

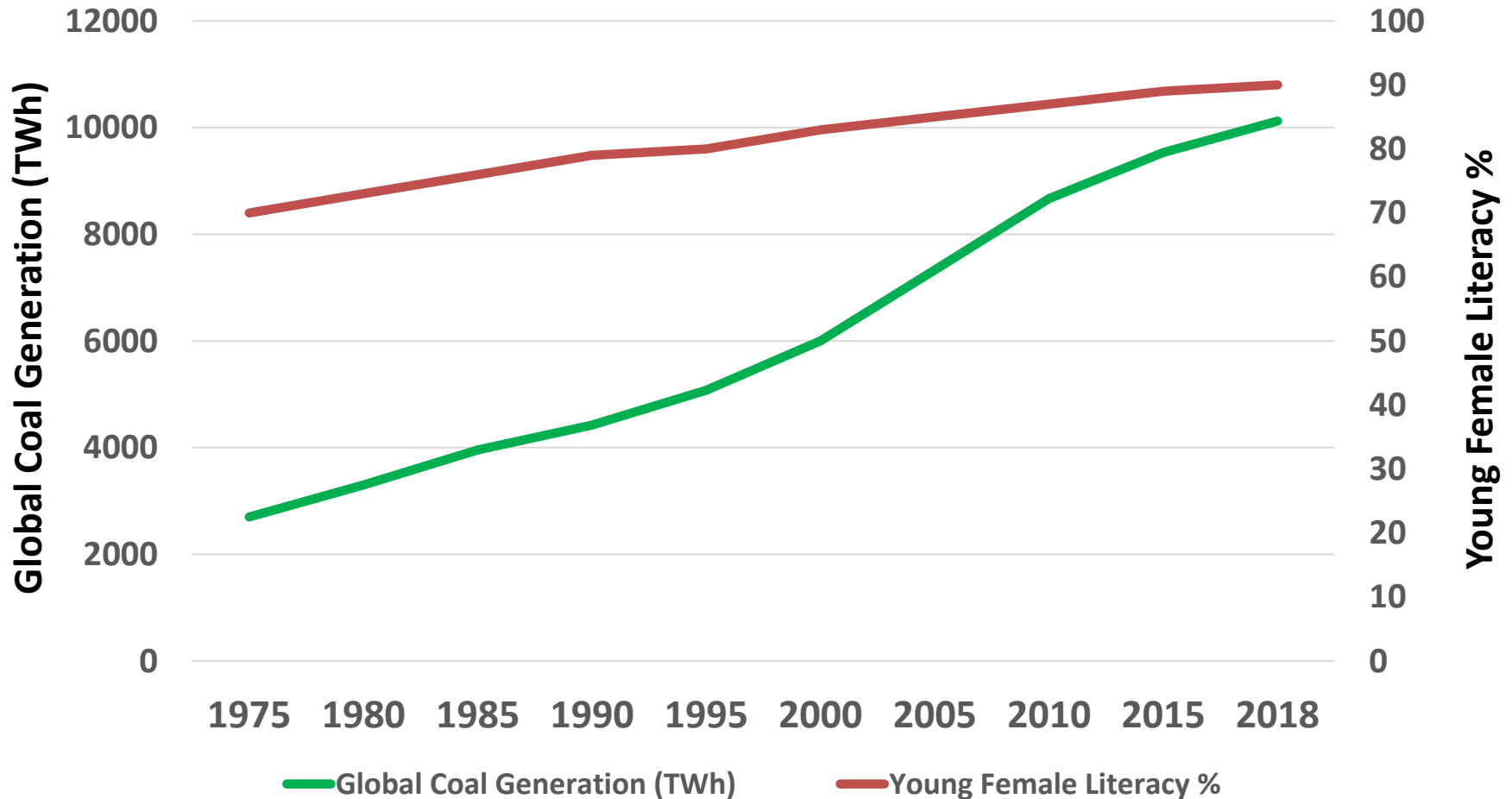
**More than 130 million girls do not attend school. If these girls were a country, they would be the 10<sup>th</sup> largest nation in the world.**

# Global Coal Generation and Primary Age Girls Not in School



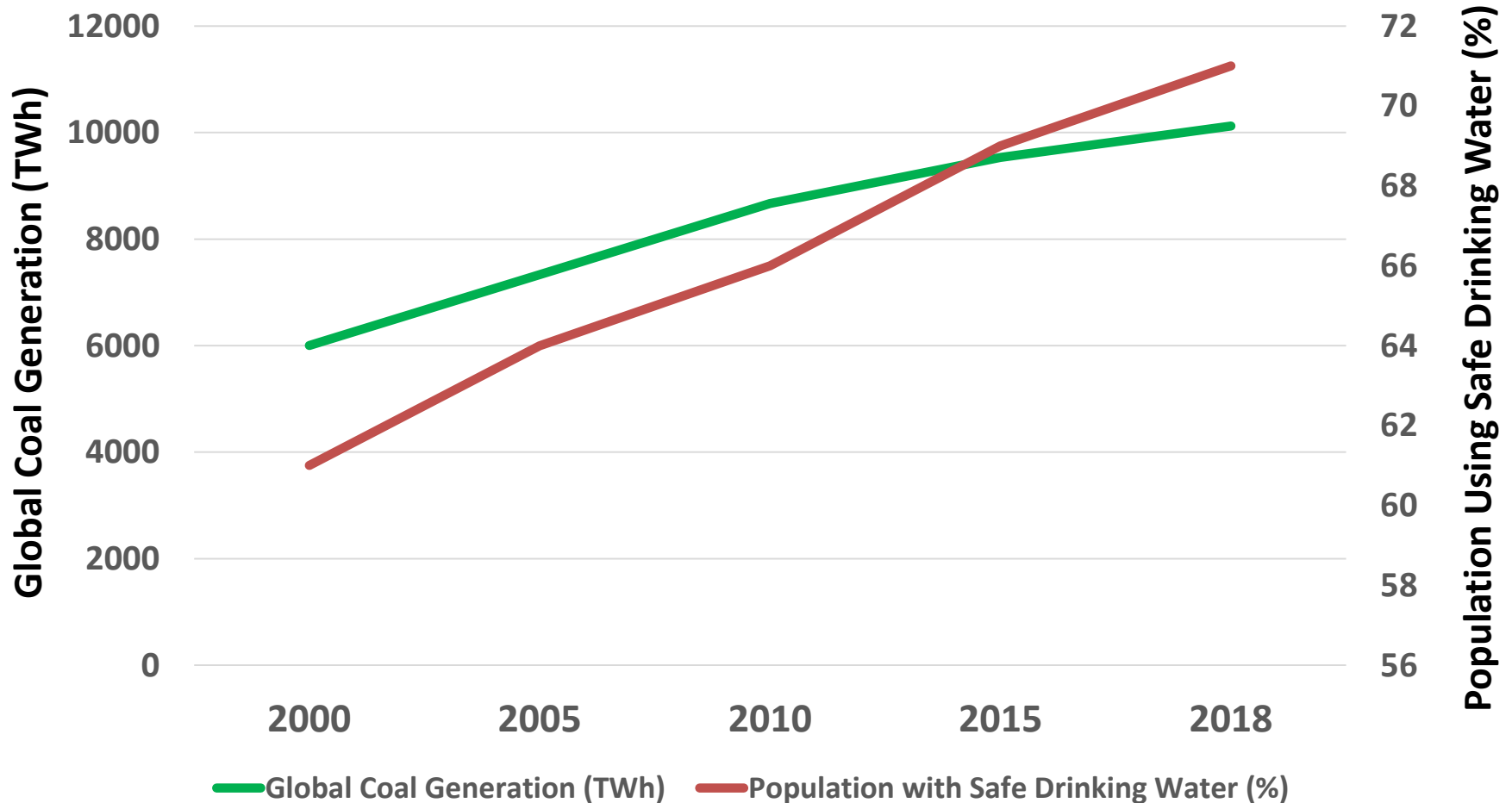
Source: <https://data.worldbank.org/indicator/SE.PRM.UNER.FE?view=chart>

# Global Coal Generation and Female Literacy (Ages 15-24)

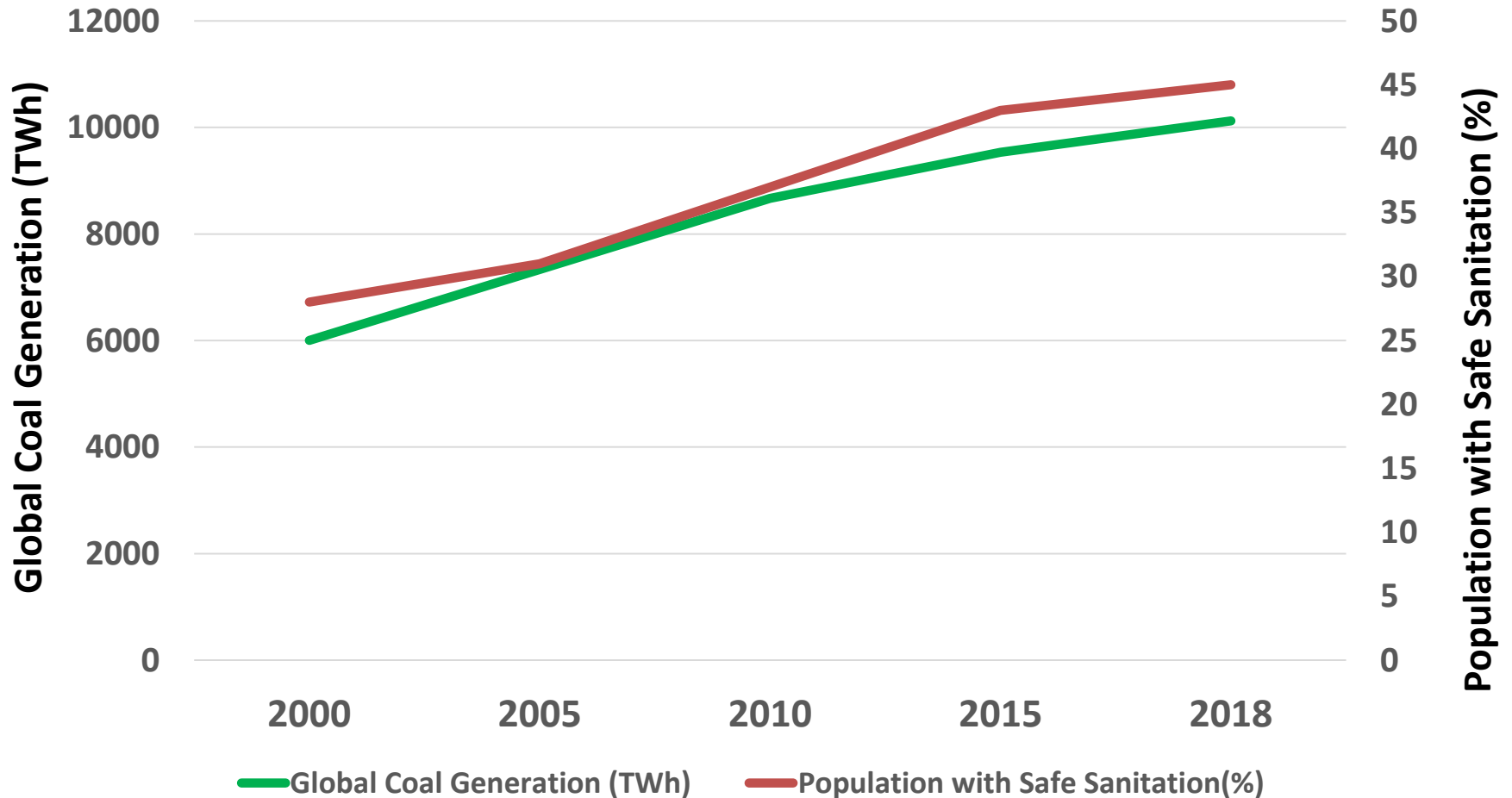




# Global Coal Generation and Safe Drinking Water

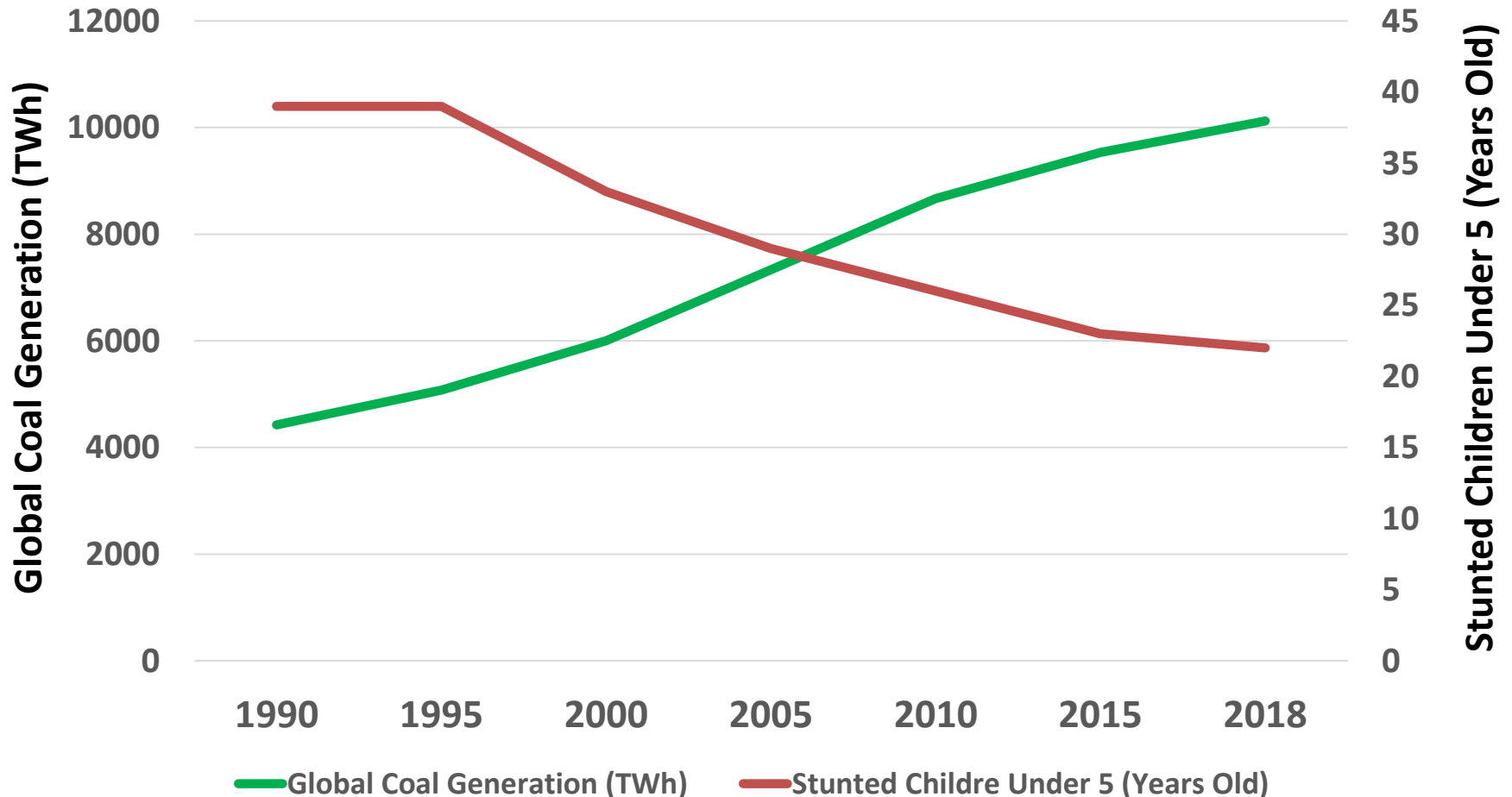


# Global Coal Generation and Safe Sanitation

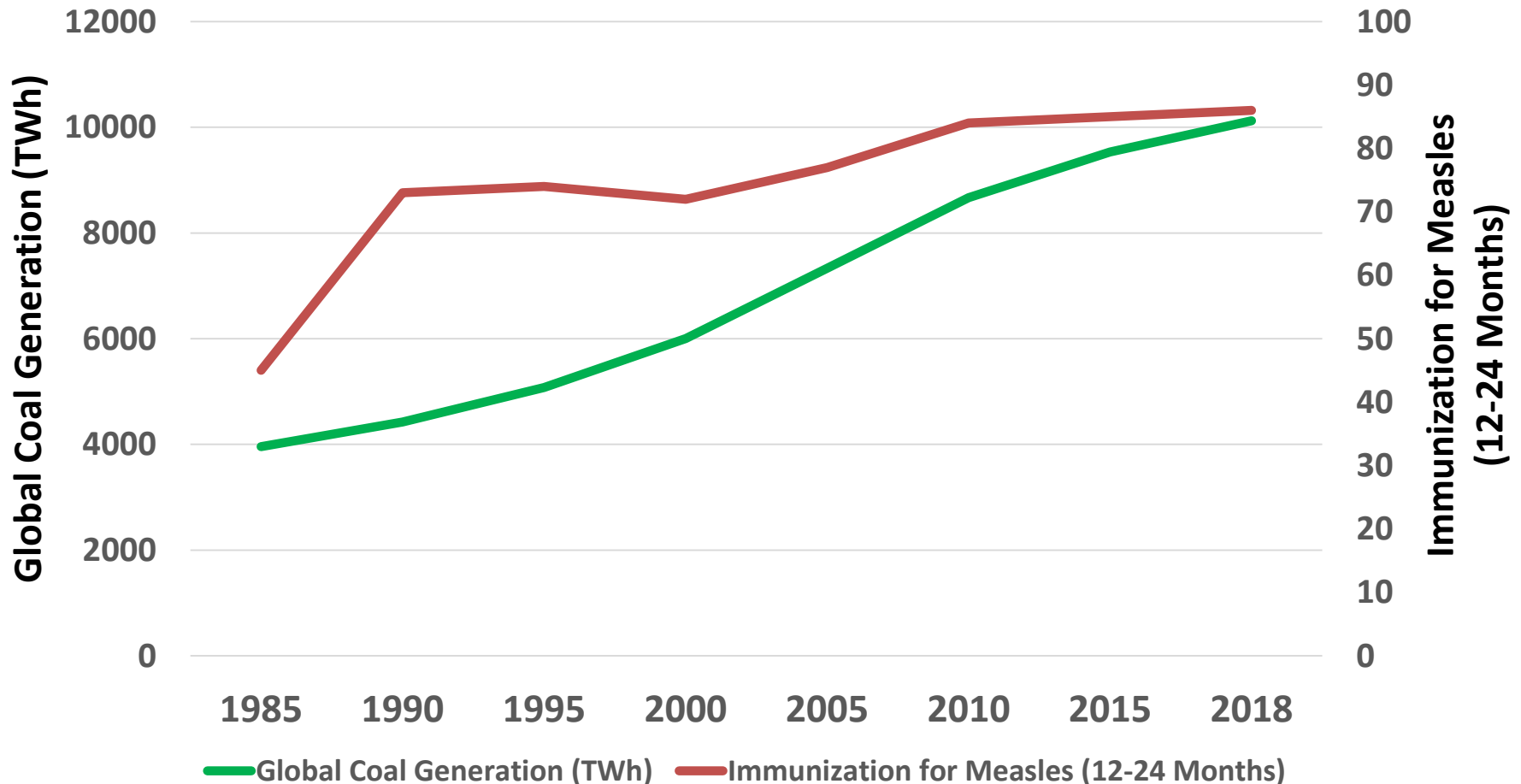


Sources: <https://data.worldbank.org/indicator/SH.STA.SMSS.ZS?view=chart>

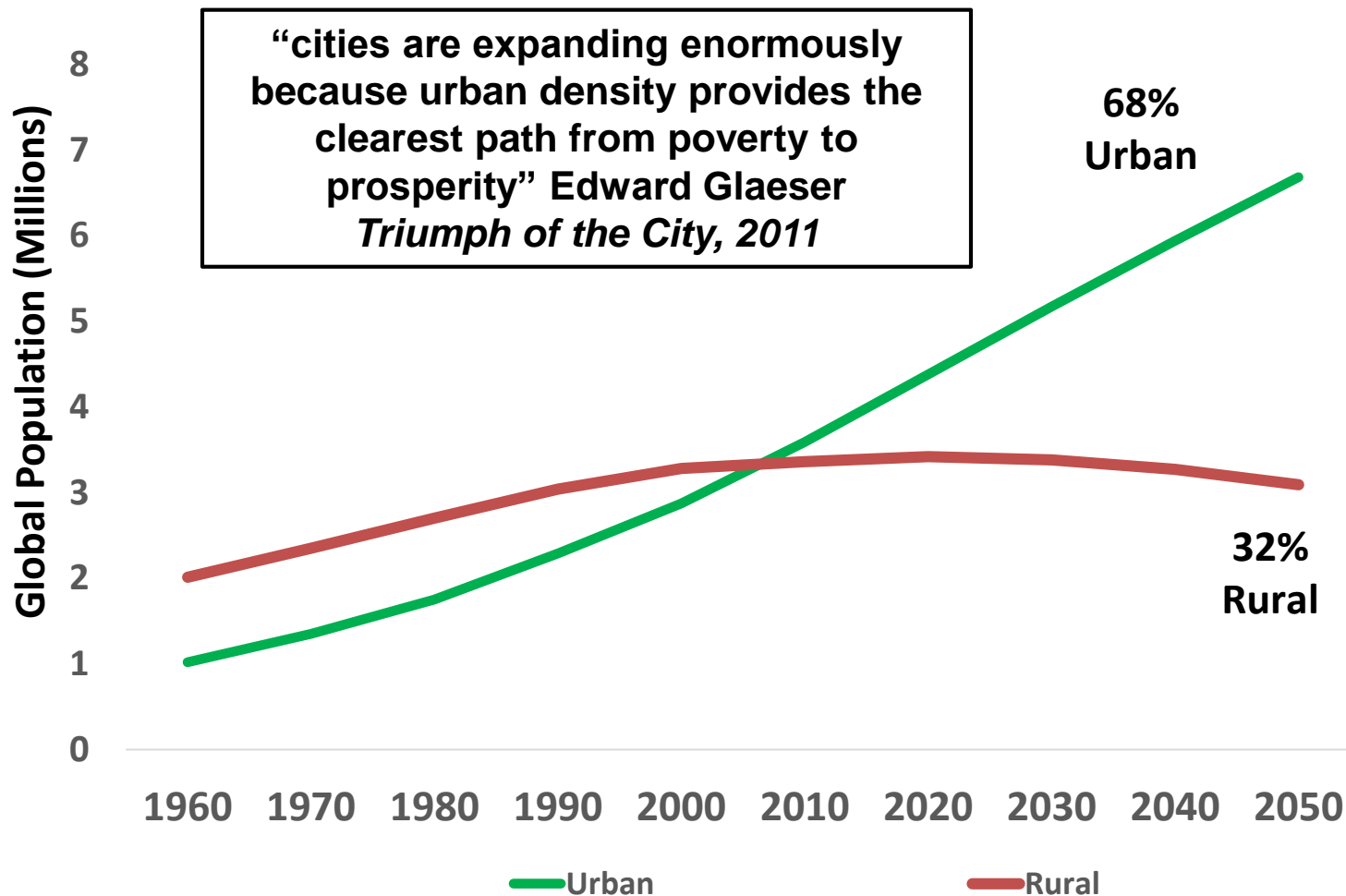
# Global Coal Generation and Stunted Children Under 5



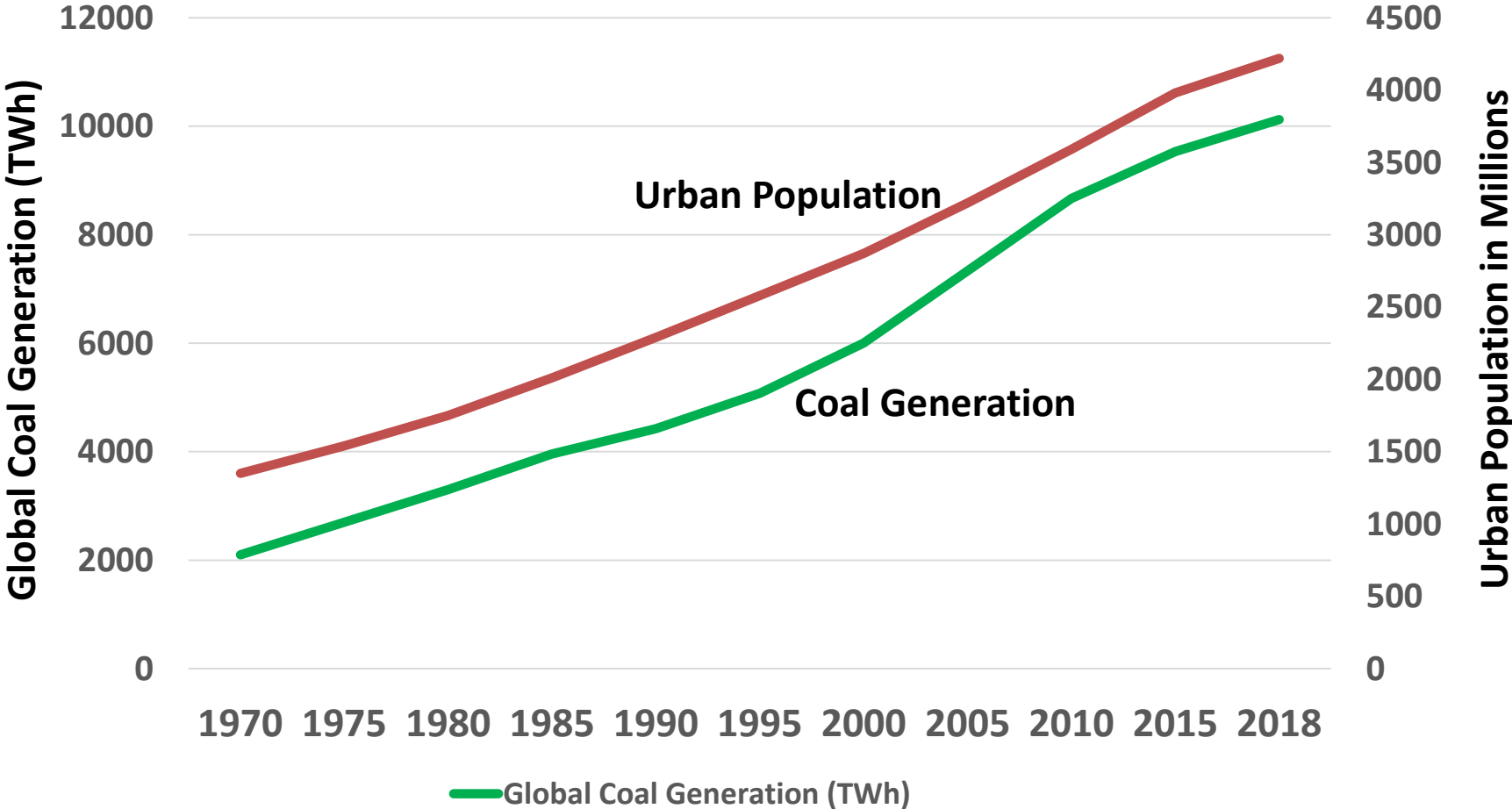
# Global Coal Generation and Immunization for Measles (12-24 Months)



# The Unprecedented Rise of Cities



# Global Coal Generation and Urban Population (in Millions)

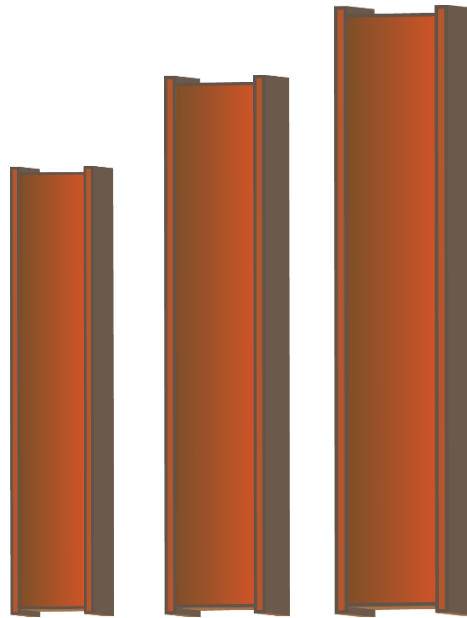


Source: <https://ourworldindata.org/urbanization#how-many-people-will-live-in-urban-areas-in-the-future>

# Coal Provides the Building Blocks of Cities



**Power**

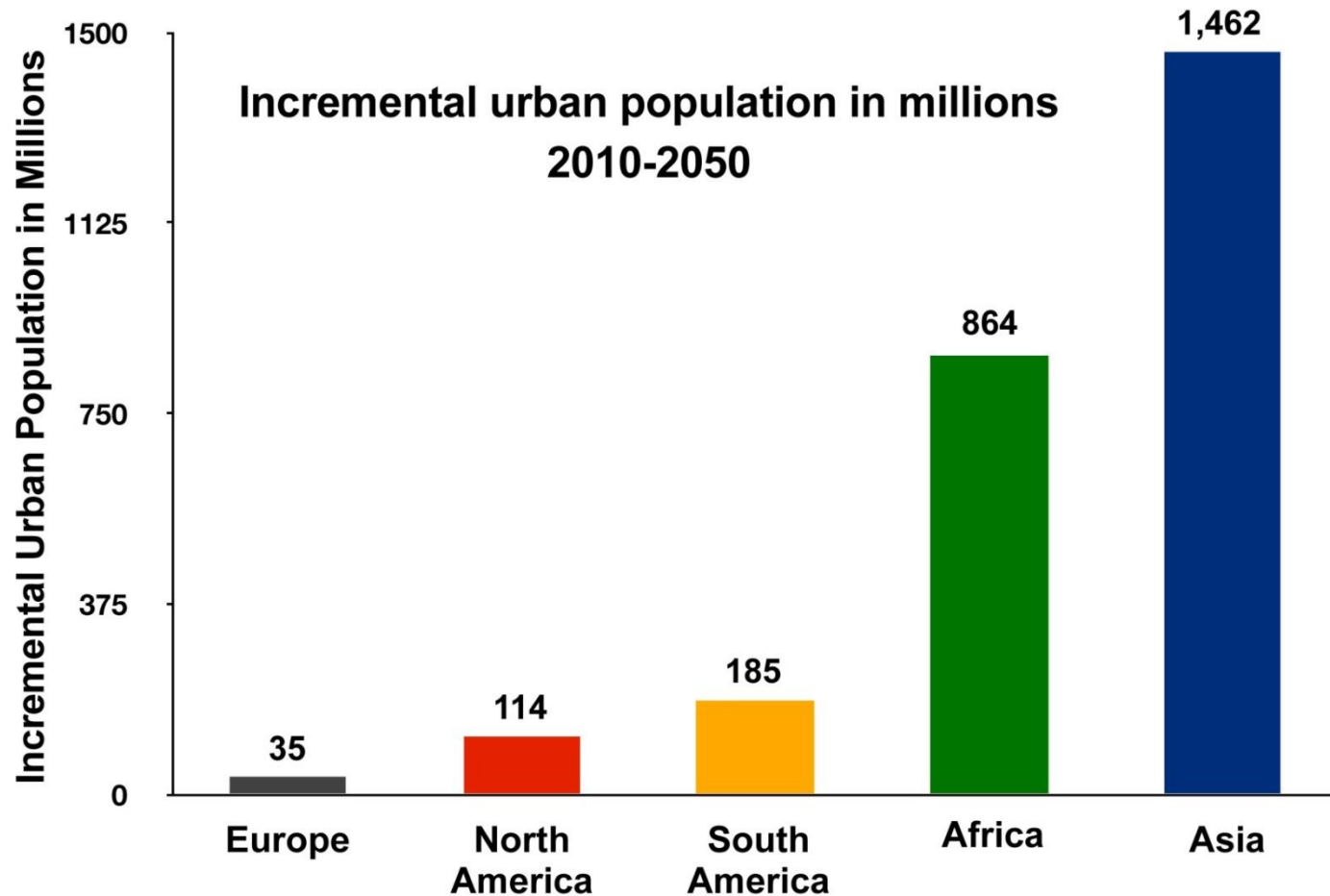


**Steel**



**Cement**

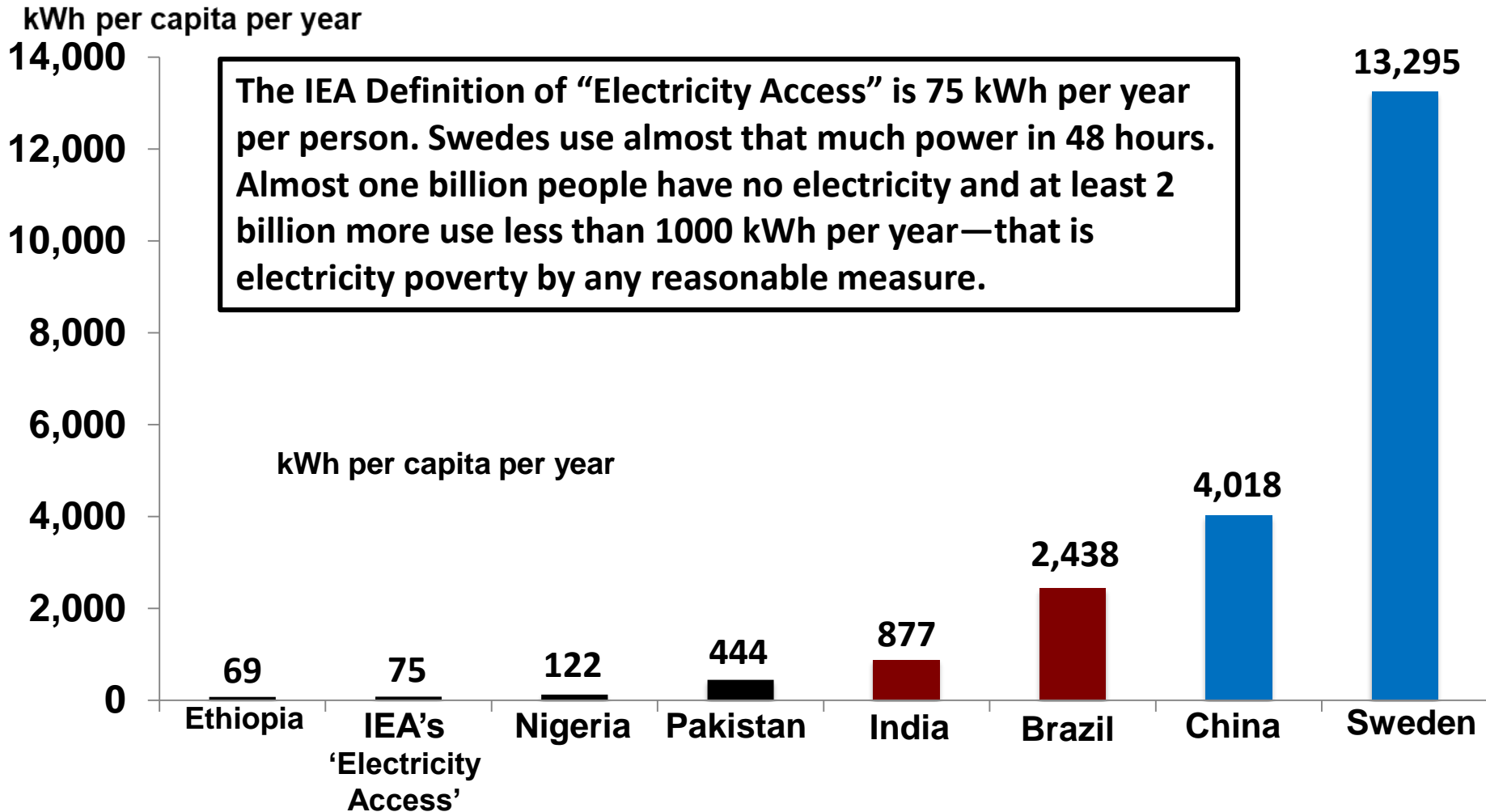
# The Continuing Wave of Urbanization Depends on Coal



Source: <https://ourworldindata.org/urbanization#how-many-people-will-live-in-urban-areas-in-the-futureS>

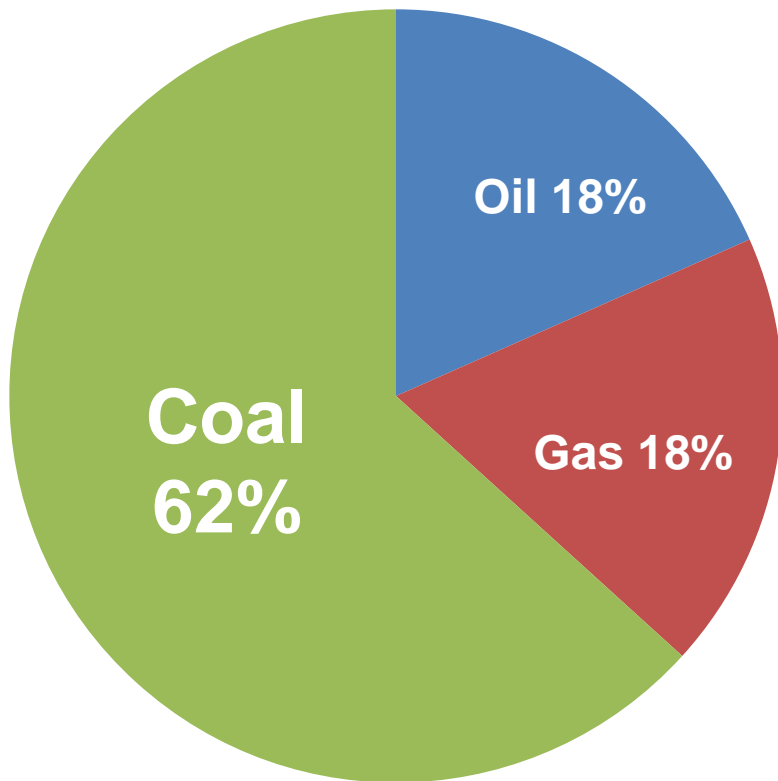


# Only Coal Can Meet the Challenge of Electricity Poverty at Scale



# Coal Provides The Means

## Global Reserves (economically recoverable)



All fuels are needed to reduce the overwhelming of energy poverty around the world. But coal is the only resource that can scale to the proportions needed to bring billions of people out of the dark. Clean coal technologies are proven and steadily being implemented throughout the world.

# Why We Need Coal: A Transmission Line for Much of the World



## CONCLUSION

The underlying position in both the Air Toxic Petition and EPA's 2009 Endangerment Finding is that atmospheric CO<sub>2</sub> is a powerful greenhouse gas capable of causing dangerous global warming that will threaten life on the planet. In examining that position, this Petition and our [previous Petition](#) have presented convincing evidence based on real-world observations that it is not.

Atmospheric CO<sub>2</sub> is not the all-important greenhouse gas Food & Water Watch and EPA claim it to be. Far from being a dangerous pollutant, rising atmospheric CO<sub>2</sub> is actually *benefitting* humanity and the natural world. It is undeniable that fossil energy initiated (and continues to sustain) the Industrial Revolution and the many human and environmental benefits that have emerged therefrom. Without adequate supplies of low-cost centralized energy, few, if any, of the major technological and innovative advancements of the past two centuries that have enhanced and prolonged human life could have occurred. Additionally, without the increased CO<sub>2</sub> emissions from fossil fuel use over the past two centuries, Earth's terrestrial biosphere would be nowhere near as vigorous or productive as it is today. Rather, it would be devoid of the growth-enhancing, water-saving and stress-alleviating benefits it has reaped in managed and unmanaged ecosystems from rising levels of atmospheric CO<sub>2</sub> since the Industrial Revolution began.

When considering and accounting for such *positive* improvements, it becomes scientifically and morally indefensible to demonize fossil fuel use and declare CO<sub>2</sub> emissions a current (or long-term) threat to human health and welfare. *More*, not less, fossil fuel use is needed to enhance human progress and sustain the natural world. Consequently, in light of all the above evidence, this Petition respectfully requests summary dismissal of the Air Toxic Petition and negation of the EPA CO<sub>2</sub> Endangerment Findings.

Respectfully submitted,

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<sup>1</sup> See <http://www.co2science.org/about/seniorfellow.php>.

<sup>2</sup> See <http://www.co2science.org/about/seniorfellow2.php>.

<sup>3</sup> See <http://www.co2science.org/about/chairman.php>.