



## Global Solutions Series Fact Sheet: Co-Benefits of Climate Solutions

Climate Solutions do not exist in a vacuum. Climate solutions can increase:

- Health outcomes from lower air pollution
- Jobs in new “green” industries
- Biodiversity
- Economic resilience and security from local food and energy production
- Sustainable forests, food, and farming
- Gender equity and social justice

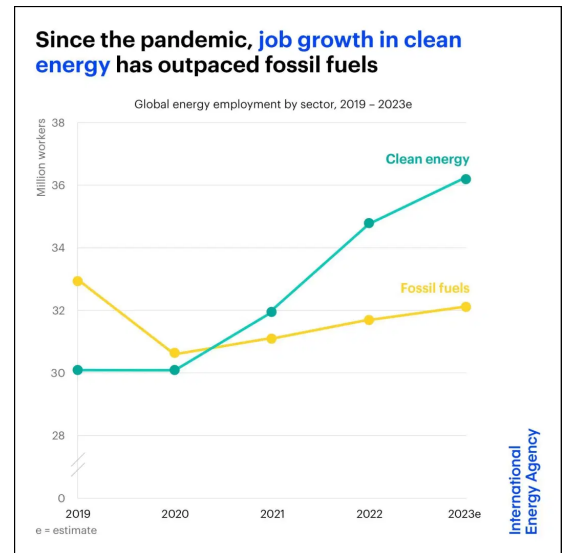
Understanding and emphasizing co-benefits can lead to:

- **Faster Action:** In 2019 research by CDP found that Cities citing the co-benefits of their climate action reported 2.5 times more climate actions than cities that did not.
- **More Cost-Effective Solutions:** Research by the UN found that the costs of achieving energy access in Sub-Saharan Africa would increase from USD 27 billion to USD 33 billion without effective climate policies (which would advance the adaptation of solar energy and decrease the energy demand for cooling).

Below are some more detailed examples of the numerous co-benefits of climate solutions:

### Clean Energy Deployment: Employment

More people now work in clean energy than in fossil fuels globally. The IEA's 2023 Net Zero Roadmap found in a net-zero emissions scenario, "30 million new clean energy jobs are added by 2030 while close to 13 million jobs in fossil fuel-related industries are lost, meaning that around two clean energy jobs are created for every fossil fuel-related job lost." There is emerging evidence, however, that new clean energy jobs are not as secure or as well-paying as traditional utility and fossil-fuel sector jobs (something that may be slowing growth in the sector). Women also hold a larger proportion of jobs in renewables than in the fossil energy sector.



### Food and Farming: Soil Sequestration

While cultivating soil health increases carbon sequestration, implementing practices such as cover cropping, composting, rotational grazing, and agroforestry often also lead to improved soil water holding capacity, improved crop quality, increased resilience to weather events like drought, extreme rainfall, and heatwaves, improved pest management, and improved income for farmers who are able to successfully diversify crops and thus mitigate marketplace risks associated with monocrops.

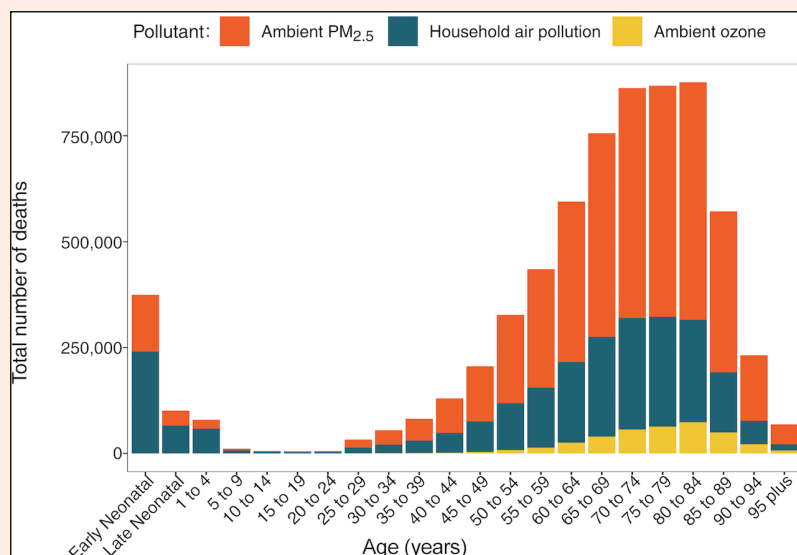
### Nature-Based Solutions: Conservation

The co-benefits of prioritizing forest conservation extend far beyond climate. Forests provide a huge range of ecosystem services, including conserving the health and regulation of watersheds, providing food, fuel, timber, medicine, and other economic products, providing critical habitat for biodiversity and millions of humans, and offering aesthetic, recreational and spiritual benefits that cannot be easily quantified.

## Better health

Many climate solutions increase health outcomes. Air pollution from power generation, transport, and household activity accounts for more than 1 in 9 deaths globally and disproportionately impacts children and people over 50. Air pollution also disproportionately impacts lower-income regions of the world. Reducing emissions across sectors can have significant health benefits. Consider these examples from ClimaHealth:

- **Scaling Clean Energy and Reducing Fossil Use:** Falling particulate emissions will decrease disease burden and deaths, with the biggest gains in cardiopulmonary disease, lung cancer, and a lessening of respiratory infections. For example, in the U.S. from 1999 to 2020, researchers found that 460,000 deaths were attributable to coal (you can find a breakdown by US coal power plant [here](#)).
- **Promoting Active or Public Transport Solutions:** Increased physical activity has positive effects on cancers, diabetes, depression, heart disease and obesity-related risks and the decrease of local transport emissions helps reduce respiratory and cardiovascular diseases. Outdoor air pollution was estimated to have caused 4.2 million premature deaths worldwide in 2019, with 89% of those premature deaths in low- and middle-income countries.
- **Low-Carbon Food Systems:** Decreased consumption of saturated fat from animal sources (especially processed red meats) would decrease incidence of some cancers, heart disease, obesity, and promote overall nutrition, while more climate-resilient food systems promote food security.



Source: State of Global Air



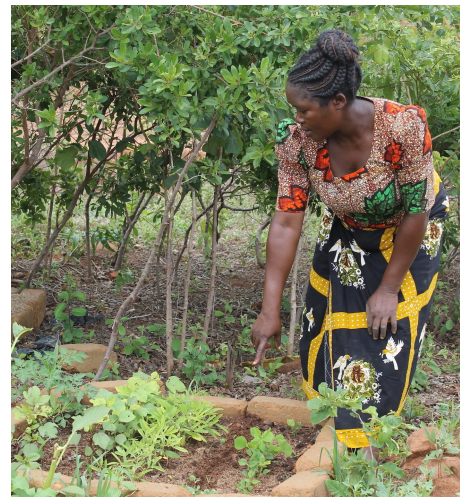
Some other examples include:

- **Energy Retrofits** can increase health outcomes, decrease economic stress from utility bills, reduce emissions, and provide jobs.
- **Pedestrian and (Electrified) Public Transportation** can reduce vehicle trips, increase health by decreasing air pollution and noise pollution, encourage more walking, increase lower-cost transport options, increase local economic activity, reduce traffic fatalities– check out [CICLOVÍA BOGOTÁ](#) or [Proaire in Mexico](#).
- **Increasing Vegetarian Diets** can reduce emissions from agriculture and reduce medical visits and support longer lives–[Tzu-Chi Dialysis Center in Penang, Malaysia](#)
- **Green roofs** or curtains can cool local air through water evaporation, reduce the need for air conditioning, provide natural shade, support with urban flooding due to erratic rainfall, provide food, and sequester carbon emissions– check out [Kyocera’s Green Curtains](#)

## Case studies:

### Agroecology in Malawi

Empowering women farmers to feed their communities, adapt to climate change, and undo legacies of gender injustice and violence may seem like a tall order to take on for a non-profit focused on soil health, but that is exactly what is happening at [Soils, Food & Healthy Communities](#), a farmer-led group based in Malawi. From spreading access to seeds and teaching women how to cultivate diversified and drought-tolerant crops like millet, beans, and sorghum, this organization follows the [agroecology paradigm](#) for transforming food systems.



Source: [Soils, Food and Healthy Communities](#)

Agroecology is inherently focused on social change, in addition to systems of farming and research that integrate ecological principles; the starting point is feeding communities, as opposed to “feeding the world.” According to researcher Raj Patel, this approach is the [key to ending world hunger](#). You can learn more about this project by watching the Ants and the Grasshopper. You can [watch the trailer](#) or [watch the full film](#).



## Clean Cooking in India

830 million people, most in rural regions, still depend on solid biomass (chiefly firewood and cow dung) for cooking. The health impacts of this dependency are staggering. According to the Clean Cooking Alliance, "Exposure to smoke from traditional cookstoves and open fires – the primary means of cooking and heating for nearly three billion people in the developing world – causes more than 4 million premature deaths, including more than 1.2 million deaths in India, every year."



A governmental push to expand access to liquified petroleum gas (LPG, which is derived from fossil gas) for cooking has made significant inroads in urban India, but LPG remains too expensive for many households. The climate and environmental impacts of firewood use are also significant. "Between 27 and 34% of the wood fuel harvest in 2009 was unsustainable," one study found, contributing to deforestation. This number has likely increased in recent years. Analysis by the IEA found that pursuing clean cooking for all results in a net reduction of 1.5 gigatons of CO<sub>2</sub> equivalent by 2030, similar to the amount of CO<sub>2</sub> emitted by planes and ships in a year.

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