

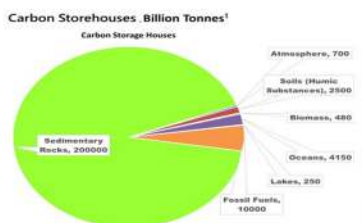


COP 28 Dubai
 Press Release
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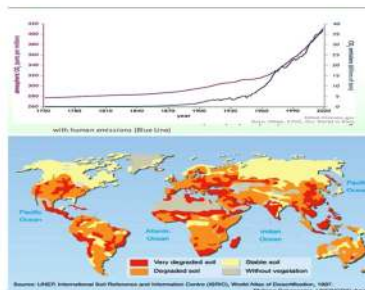
Daman S. Walia, Ph.D
President/CEO
 dwalia@arctech.com

Farming carbon to feed the world and reach net zero and mitigate Pollution and Carbon Emissions from Fossil Fuels with Products Made by Repurposing Coals

At the Rotary Pavilion Thematic Arena “Food & Health” on December 10, 2023, Dr. Walia will present his proven approach of repurposing coals to increase the capture of atmospheric carbon through photosynthesis. Applying ARCTECH’s Actosol® organic humic fertilizer harnesses photosynthesis to increase CO₂ capture by 10 tons per acre per year from the air and durably store this carbon in soils. We are farming carbon to feed the world, using nature-based solutions to rebalance it in air and soils, two of the planet’s five major carbon storehouses, sedimentary rocks, fossil fuels, oceans, soil, and air. Since the mid-18th century industrial revolution, carbon has increasingly become lower in soil and higher in the air. An increase in air causes global warming and a decrease in the soils resulting in adverse impacts on agriculture. Farming carbon is the powerful climate action we can take to rebalance these and reach net zero without adversely impacting global economies as many approaches will do, which are being considered today. Ours will enhance global economies for all. It is ready for fast-track global scale-up on the farmlands. The need is to support farmers in implementing it on 3.8 billion acres or 10% of global farmlands. It will reduce 38 billion tons of CO₂ annually, almost equivalent to 2022 emissions. **On Feb 20, 2024, the EU Commission announced carbon farming as the #1 EU-wide certification scheme for carbon removals.** With less CO₂ in the air, oceans will take up less, which covers 70% of our planet. Note below a schematic showing how our game-changer approach works:



T B. Bolin and R. B. Cook (Eds.), The Major Biogeochemical Cycles and Their Interactions, Wiley, New York, 1983. BT= Billion Tonnes



Global Leaders from 198 countries and 100,000+ organizations for the 28th time are gathered in Dubai by the UN. Its global stock take report per the UN Paris Agreement in 2015 states that “much more is needed now, on all fronts and by all actors to meet the long-term goals of the Paris Agreement.” They will decide how to address this burgeoning climate crisis and set assured mileposts to net zero by 2050. The World Meteorological Association reports in the last 50 years, more than 11,000 reported disasters attributed to weather hazards globally, with just over 2 million deaths and US\$ 3.64 trillion in losses. Addressing this continues to be one of the most entrenched divisive issues. Bloomberg states that the solutions being offered will cost \$196 Trillion. If not, Insurance giant Swiss Re estimates that runaway global warming could gouge \$23 trillion per year from global GDP. Some say there is no need to do anything; our planet also experienced warming cycles in the past, so today is just another climate cycle. Compared to our ancestors, who not only were far fewer than today's 8 billion of us, most likely had no choices. We do and we have also developed scientific understanding that it is resulting from our industrialization approaches since the mid-18th century. Its impacts on the now hugely populated planet are catastrophic to many. At COP 28, increasingly adversely affected ones are being compensated with Loss and Damage Funds amounting to \$475 Million contributed by the developed countries. Based on adverse impacts underway, are far short of \$100 Billion per year of pledges for this compensation. We must address this with value-generation approaches for ourselves and future generations proactively, instead of stopping the use of fossil fuels and multiple other costly measures as some are making a case for addressing this issue.:

ARCTECH is a biotechnology company that has 30+ years of research and field test results in repurposing low-grade lignite and sub-bituminous coals, which make up about 50% of global coals. Instead of burning these coals, we produce actosol® organic fertilizer and multiple other organic humic products for pollution mitigation. Actosol® is proven to increase root growth by 200-400% and top growth by 125%+ by harnessing photosynthesis. Crop yields are increased by 20%+ and with increased nutrition, notably protein. Coals contain the most required nutrients which were taken up by plants for their growth from soil minerals. Farmers report an average 0.5% yearly increase in organic matter, resulting from a net increased capture of 10 tons of CO₂ per acre/year. Planting trees on their non-farmland can further increase carbon capture and increase their survivability by active management. Planting trees on unmanaged lands results in poor survivability and will be prone to forest fires. Farmers' income can double or triple from greater crop yields and being paid for the carbon sequestration in their land. 45% of the world's population is engaged in farming. But even though they are meeting one of humankind's top needs, most farmers remain in chronic poverty. The World Bank reports they produce food worth \$5 Trillion per year and account for 4% of global GDP, and more than 25% of GDP for least developed countries. Also imposes \$ 6.03 Trillion in Costs Due to High environmental and Health Costs. We can reach net zero emissions and boost farmers' income by applying actosol® for \$100 per acre a year, or \$0.4 trillion, while boosting food for increasing populations. A 20% increase in crop yields will add \$ 1 Trillion, resulting in an ROI of over 150% for supporting the farmers to farm carbon. It is an inclusive approach that addresses conflicting priorities of the need to continue to provide affordable energy being generated with existing infrastructure using fossil fuels for the increasingly large populations aspiring for improved living standards while addressing climate change. Instead of phasing out fossil fuels, add new solutions, such as renewables, hydrogen, and even nuclear as these become practical and competitive. It is the fastest track to net zero by enabling our farmers globally to farm carbon, increase income, and rebalance the two carbon storehouses, air and soils, currently most out of balance. It will also result in increased food supply for growing populations. actosol® use enables crops to be drought-resistant and salinity-tolerant, stabilizes mangroves in coastal lands and even renders desert lands fertile. Accelerate mulching in farm soils non-fodder crop residue low in soluble solids instead of burning, which results in air pollution. Farmers generally resist changing practices and need upfront financial incentives, policies, and active support to become carbon farmers. actosol® use is approved in the USA, China, India, Egypt, the Gulf, and Namibia in Africa. In the USA, USDA allows its use for growing organic foods, US EPA for combining with pesticides as an adjuvant and UV protectant, resulting in increased effectiveness and safety. IHS Markit at its Crop Science Forum in December 2021, awarded it for improving efficiency, and delivery of fertilizers while

enabling farmers to increase crop yields, quality, soil health-fertility, sequester carbon, and mitigate increasing ecological concerns. actosol® for removal of carbon from soils and durably storing in soils is a qualified approach for the XPRIZE competition underway.

Our other humic products are made from coal, HUMASORB® is proven to remove pollution from air, water, and soils, even CO₂ from fossil fuel plants. For an integrated approach to the cleanup of rivers and watersheds. Binds radionuclides and enables the safe storage of nuclear waste. Actodemil® recycles waste explosives into fertilizer, and instead of releasing 2.5 tons of CO₂ from burning one ton for disposal, using fertilizer made from these will enable the removal of 800 tons of CO₂ from the air, generating economic value. Our solutions consider the Iroquois Indians' 7th generation principle to mitigate the adverse impacts of decisions today on the next seven generations.

**Carbon Dioxide Along with Other Contaminants
are Recycled into HUMASORB® Water Filter and Soil Fertility**

Grand Challenge Awarded by Canada, 2014
ARCTECH
Preserving Tomorrow's World... Today

Note below what Global Leaders are saying:

-President Xi stated last year “Low-carbon ambitions must not interfere with ‘normal life’. His bold vision is for “shared development and shared future for mankind with balanced harmony” Mitigating carbon and pollution is at the front and center of his bold vision.

Poland reports growing demand for coal even before the outbreak of war in Ukraine. As a result, it plans to increase production wherever possible.

Germany is restarting coal plants and reopening coal mines in the wake of Russia's cutbacks in energy supply.

PM Modi is financing the increase in the use of 100 million tons of coal per year in India to meet the increasing needs of the growing population.

USA Senator John Kerry is making a plea for global action at various Forums and wonders how to convince people that it is urgent to move forward to save our planet! At COP 28, he announced an accelerated unabated coal phase-out across the world.

The Director of the Air Pollution Control Division at the US EPA has stated in writing about our solutions that “we agree it has the potential to lower the environmental footprint than conventional approaches of coal use and a creative and value-generation approach for mitigation of carbon emissions.”

Ours is a no-regrets solution. If excessive CO₂ in the air is not an issue in the future, we will increase the food supply, boost farmers' economies, mitigate pollution, boost economies, and protect our planet for all its inhabitants and future generations. Note our proven solutions at www.arctech.com. Please email me for collaboration and your support.