



Research Paper

Global Warming Rise Not By Carbon-Dioxide (CO₂)

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ABSTRACT: Increasing temperature of atmosphere is not by increasing concentration of carbon dioxide. Three observations showed rise in concentration of CO₂ do not match rise in global warming. CO₂ increased around 48 % and contributes in global warming 25 % or 53 % or 66 % depending on references. Accordingly, temperature might has increased around 3.96^oC or 8.36^oC or 10.45^oC on basis of reference. 48 ppm and 75 ppm rise in CO₂ concentrations resulted 0.8^oC and 0.72^oC rise in global warming during 1880 to 1980 and 1980 to 2020 respectively. Collectively temperature rose 1.52^oC. Deforestation is cause and reforestation is cure of increasing global warming. Situation of the Venus mentioned. Role of CO₂ in increasing global warming is nil or negligible.

KEY WORDS: Carbon-dioxide, rise, temperature, not, proportional.

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I. INTRODUCTION:

Global warming is a fearsome problem of the world. The term global warming was coined by Broecker in 1975[1]. The National Academy of Science first of all in the Charney Report (1979) applied and established the Science of Global Warming [2]. The Globe is synonym of the World [3]. A view is that natural global warming is of 33^oC due to greenhouse effect [4]. The Earth's average temperature could be -18^oC without greenhouse effect [5]. The mean temperature on the Earth surface is 15^oC due to greenhouse effect caused by greenhouse gases [6]. Rise in global warming is primarily owing to excessive deforestation [7]. The Bonn Challenge launched in 2011 by government of Germany and IUCN to restore degraded forests [8]. The natural global warming that was prior to Industrial Revolution will be restored in twenty years from now by Patel' theory of thirty three [9]. The concentration of Carbon-dioxide in atmosphere of the globe (Earth) was stable during 270 to 285 for about 2000 years before 18th century [10]. In 2020 level of CO₂ was 414 ppm which is 134 ppm higher than 280 ppm level of pre-industrial time that is around 47.85% CO₂ has been increased [11] which in round figure is 48% [12]. In 1880 concentration of Carbon-dioxide in atmosphere was around 290.7 ppm [13]. Contribution of CO₂ in global warming is somewhat contradictory: one view is that CO₂ contributes 53% [14], other view is of 25% [15]. One more view is of 66 % [16]. So far uncertainty is regarding the life span of CO₂ in atmosphere, one of view is that life span of CO₂ in atmosphere is about 200 years [17]. One talk of pleasure is that CO₂ is harmless to mankind below level of 5000 ppm [18] and in trials photosynthesis in plants increased up to 40% between 475 to 600 ppm [19]. Carbon-dioxide also found in atmosphere of the Venus but global warming is not in proportion to concentration of CO₂, therein vapor of Sulphuric acid cause global warming [20]. Global warming has been increased about 1.52^oC by anthropogenic activities during 1880 to 2020 [21]. The global average highest temperature rise approached to 2.18^oC on 4th July 2023 [22]. Role of only Carbon-dioxide in increase of global warming explained here.

II. EXPLANATION:

Carbon-dioxide is the most abundant and prevalent greenhouse gas in atmosphere which commonly exists as part per million (ppm) whereas other greenhouse gases are found either as part per billion (ppb) or part per trillion (p.p.t.) concentrations except water vapor. Concentration of CO₂ is about 1000 times higher than other greenhouse gases, so contribution in global warming of carbon -dioxide is greater than other greenhouse gases collectively. Much concern across the world is about increasing concentration of CO₂ in atmosphere and concern is of vain which is explained hereunder:

1. Increasing concentration of CO₂ does not match with temperature:

CO₂ has been increased in atmosphere about 134 p p m (414 - 280 =134) by anthropogenic activities till 2020 and contributes about 53% in increase of global warming. 134 ppm is 47.85 % of 280 p.p. m. CO₂ increased 47.85% in atmosphere. Since 100% Carbon dioxide contributes 53% in global warming hence 47.85 will contribute 25.36 parts. Now find out 25.36 of natural global warming of 33 Degree Celsius. Result is 8.36 Degree Celsius. When CO₂ was around 280 ppm in atmosphere then natural global warming prior to industrial revolution was 33 Degree Celsius. Now, CO₂ has increased around 47.85% (414 ppm in 2020) that is 134 ppm on 280 ppm. If increased CO₂ is causing increase in global warming then global warming must have been increased of about 8.36 Degree Celsius till 2020. But average maximum global warming rise of 2.18^oC (17.18-15=2.18) has occurred on 4th July 2023. In other words natural global warming plus CO₂ induced global warming equal to current global warming (33+8.36=41.36) 41.38^oC. The Earth surface average temperature should have been 23.36^oC (41.36-18=23.36) by increased Carbon-dioxide in 2020 status. The earth surface mean temperature 15^oC deducted from 23.36^oC of global warming to get result which is increased global warming of 8.36^oC (23.36-15=8.36^oC) induced by CO₂ alone till 2020 instead of 1.52^oC in 2020. Other view is this that carbon dioxide in the atmosphere contributes approximately 25% of greenhouse effect, on this basis 25% of natural global warming 33^oC is 8.25^oC. Since CO₂ has been increased about 48% in atmosphere and 48% of 8.25^oC is 3.96^oC. If CO₂ accounts for 25% in greenhouse effect then CO₂ alone might has caused increase in global warming of 3.96^oC so far but global warming has hiked approximately 1.52^oC till 2020. Global average maximum temperature rise was of 17.18^oC (17.18-15=2.18^oC) that is utmost increase in global warming recorded was of 2.18^oC on 4th July 2023. According to observation by the NOAA Global Monitoring Lab, in 2021 carbon dioxide alone was responsible for about two third of the total heating influence of all human produced greenhouse gases. CO₂ increased 48% in atmosphere on 280 ppm level of pre-industrial time and contribution of CO₂ is around 66%. Therefore 31.68 parts is contribution on 48% rise. And 31.68 % of natural global warming 33^oC is 10.45^oC. Carbon-dioxide alone might increase about 10.45^oC global warming provided that increased concentration of CO₂ in atmosphere is increasing global warming.

2. Increased concentration of CO₂ and temperature rise are not proportional:

In an observation of during 1880 to 1980 and 1990 to 2020 this has been seen that till 1980 CO₂ concentration increased from 290.7 ppm in 1880 to 338.76 ppm in 1980 that is CO₂ increased (338.76-290.70=48.06 ppm) 48.06 ppm 1980 and 1990 meanwhile global warming increased 0.8^oC that is 48.06 ppm increase in CO₂ caused 0.8^oC increase in global warming. On the other hand during 1980 to 2020 concentration of CO₂ increased from 338.76 ppm to 414.24 ppm. That is CO₂ increased (414.24-338.76=75.48 ppm) 75.48 ppm meanwhile global temperature increased from 0.8 in 1980 to 1.52^oC in 2020 or 0.72^oC rise. Means 75.48 ppm increase in CO₂ concentration caused 0.72^oC increase in global warming. In one hand 48.06 ppm rises in CO₂ concentration increased 0.8^oC global warming during 1880 to 1980. On the other hand 75 ppm increase in CO₂ concentration caused 0.72^oC increase in global warming during 1980 to 2020. In other words less increase in CO₂ concentration (48.06 ppm) caused more increase in global temperature (0.8^oC) while more increase in concentration of CO₂ (75 ppm) caused less increase in temperature (0.72^oC). Thus no direct correlation found between increased CO₂ concentration and increase in global warming.

3. Lifetime and future of increased CO₂:

Since life time of CO₂ in atmosphere is about 200 years hence all CO₂ or 80% thereof which accumulated in atmosphere till 1820 have automatically collapsed in atmosphere in 2020. Similarly CO₂ which was produced till 1900 will collapse in 2021. CO₂ concentration in atmosphere in 1900 was 295.8 p p m whereas 414 ppm in 2020, in 120 years 129 ppm increase occurred and at an average rate of 1 ppm per year increase CO₂ will be around 494 ppm in 2100. About 295.8 ppm will disappear automatically till 2021 but 199 ppm will remain of old CO₂. Plants will produce 280 ppm CO₂ naturally which was prior to industrial revolution (then 199 ppm +280 =479 ppm) that is in 2021 CO₂ concentration in atmosphere will be around 479 ppm. No doubt, concentration of CO₂ will definitely increase up to a level of around 479 ppm by 2021 but global warming will not increase if Patel's theory of thirty three and Bonn Challenge will be followed.

4. Rise of CO₂ is beneficial:

Increase concentration of CO₂ in atmosphere is of no concern because it is not harmful to mankind up to level of 5000 ppm and dangerous up to level of 40,000 ppm. Plants photosynthesis enhanced by 40% under elevated level of CO₂ between 475 ppm to 600 ppm. Increased concentration of CO₂ in atmosphere is essential to increase crop production to fulfil requirements of increasing population of the globe.

5. CO₂ and temperature in Venus:

Although concentration of CO₂ in atmosphere of the Venus is about 2,400 times more than that of the earth yet the average temperature of the Venus is around only 15 times higher than the Earth. Natural global warming on the Earth is about 33°C which is multiplied by fifteen to get natural global warming of the Venus. (33°C x 15 = 495°C). Such natural global warming on the Venus is of around 495°C. Water vapour is absent in atmosphere of the Venus but vapour of Sulphuric acid is found which is responsible for greenhouse effect therein. This is very clear from above explanation that contribution of CO₂ in increasing global warming is either negligible or nil.

6. Cause and cure:

Deforestation is main cause of global warming rise and reforestation is cure. Plants directly absorb a part of visible light of the Sun during photosynthesis and cool to the Earth. Therefore we feel cooler underneath a tree.

III. CONCLUSION:

If increasing concentration of CO₂ in atmosphere is increasing global warming then global warming might has raised up to 3.96°C or 8.36°C or 10.45°C on basis of 25% or 53% or 66% contribution of CO₂ alone. Some other factor like deforestation is increasing global temperature. Bonn Challenge as well as Patel's theory of thirty three should be followed to balance atmospheric concentration of CO₂ at 280 ppm level and the Earth surface mean temperature of 15°C.

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