

decreases and contributes to the global warming (Appendix I).

So, it appears the great complexity of the climate: variation of parameters on the Earth (humidity, clouds...), but so the cycles of the sun (11, 22, 60 years...), inclination of Earth axis [13].

Today some authors begin to critic so the theories of GIEC or IPCC [14-16] on the climatic models and even the greenhouse effect saying that is impossible for the atmosphere to heat the Earth because it is cooler.

V. CONCLUSION

The predictions for the climate in short duration of some ten years are very difficult, because the enormous quantity of water plays a fundamental role: by electromagnetic absorption: direct effect from the sun (in visible) and greenhouse effect in infrared and far infrared. The climate seems chaotic because many phenomena are active (humidity, clouds, oceanic currents...) and very long to study. But the particularity of the water molecule form (dipole and lightness) allows the life on the planet Earth.

The carbon dioxide cannot play the important role given by IPCC and GIEC, the water is the second heat source after the sun and could be responsible of global warming of Earth.

To understand the mechanism of the global warming to day, it is necessary to study the great accumulation of heat in the oceans and the exchanges atmosphere-sea.

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APPENDIX

(I) Solar flux F_0 at the top of the Earth: 1365 W m⁻²

Stefan constant st : $5.67 \times 10^{-8} \text{ W m}^{-2} \text{ deg}^{-4}$

Mean Albedo A of the Earth: 0.30

Radius R of the Earth:

Equation giving the Equilibrium of Absolute Temperature without atmosphere:

Power by radiation Planck = Power received by the sun

$$4\pi R^2 st T^4 = (1 - A)\pi R^2 F_0$$

$$T = 255 \text{ }^\circ\text{K} = -18 \text{ }^\circ\text{C} [1,2]$$

(II) Thermal Gradient of the Troposphere:

Due to the gravitation g :

$$dT/dz = -g/C_p$$

$$g = 9.81 \text{ m s}^{-2};$$

Specific Heat of air $C_p = 1005 \text{ J kg}^{-1} \text{ deg}^{-1}$ for dry air, $1510 \text{ J kg}^{-1} \text{ deg}^{-1}$ for humid air. So, this gradient varies between -6.5 deg kg^{-1} and -10 deg kg^{-1} for humid and dry air [11].