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1.0 Why Climate Is Changing?

4 seasons experienced on the earth is due to inclination of earth axis by about 23.45° from its axis perpendicular to the equator's plane. When earth was formed its axis of rotation might have been perfect 90° to the plane perpendicular to its axis, to keep the free energy to its minimum for a rotation of a perfect spherical body (figure 1A).



Figure 1 A hypothetical sketch of earth rotation (A) showing axis when earth was formed and (B) shows how the axis of rotation has changed from its inception (A).

Though we have no evidence but thermodynamics' theory suggests that system tends to adopt a perfect symmetrical body to make its free energy, the least. To full fill this thermodynamic requirement the distribution of masses like stone, wood, soil etc in the earth must have adjusted to make its centre of gravity passing through the axis perpendicular to the plane of the equator (figure 1A). Over the several millions of year, wood etc buried under the earth started to convert into crude petrol and gases. Crude oil started to collect at the place from where the wood got converted into oil as well as gases. Crude oil and gases must have occupied the empty space created by conversion of wood etc into oil and gas. This process might have disturbed the axis of rotation of the earth (Figure 1A). As a result, earth started to change its axis of rotation and finally settled down to the tilt angle of 23.45° (Figure 1B). The process of shifting the axis of rotation must have taken slowly in time domain may be over several millions of year. When human being started to survive on the earth then perhaps the equilibrium condition must have been settled and thus it was noticed that the there is a tilt in the angle of rotation. We also started to experience the presence of the four seasons on this planet and we associated this change of four seasons due to the tilt of 23.45° from the axis perpendicular to the plane of the equator (Figure1B). This change in the axis of rotation we now feel it to be responsible for the change in seasons we experience on the earth.

Over millions of year, earth has experience many upheavals such as earth quakes and volcanic eruptions, rotational distance of earth from sun during its course of orbiting round the sun etc. If these factors were responsible for climate change then the change in climate which we experience these days should have been seen since the inception of earth. But the fact is that only lately we have started to feel a change in the climatic condition of the earth. Hence it is necessary to examine what human beings have done lately which has caused the changes that we observed now, like desert areas are becoming slowly green, warmer part of earth is becoming cooler, rain fall distribution is different at different places (rain fall used to be more in places now is getting less and other places are getting more, desert areas are getting rainfall etc).

What could be the scientific reasons for such gradual change in the climatic of the earth?

Over the years we have started taking out crude oil and gases in very huge quantity (~ several thousand of billions of gallon of oil and gasses) from the earth, creating a hollow space inside the earth i.e. hollow space where oil and gas used to occupy the space. This hollow space need not be symmetrical, because crude oil and gases might not have distributed in the earth symmetrically. Hence creation of hollow space due to removal of crude oil and gases would also not be symmetrical. Removal of huge amount of oil and gases would cause the weight loss of earth as well as create unbalance in the total symmetry of earth sphere. This loss of weight and creation of hollow space can affect axis of rotation of earth and hence to make the earth thermodynamically a stable a change in the tilt angle from 23.45° must be the necessity to maintain an equilibrium condition of the system of earth's rotation with respect to its axis perpendicular to the plane of the equator. If this axis is changing, the climatic condition on the earth has to readjust which we experience these days.

In order to confirm this hypothesis there is a need to re-examine and measure the tilt angle of the earth so that it can be ascertained that change in the climate is due to removal of crude oil and gases from the earth which is a man-made change.

2.0 Conclusion

Any spherical solid body if hanging in air would arrange its axis of rotation such that it is perpendicular to the plane of its equator. This is the law of thermodynamics and every system will always try to keep its condition such that its free energy of existence is minimum. When earth was formed it is natural to accept that distribution of solid mass would have adjusted such that its centre of rotation was exactly perpendicular to its plane of the equator. With time of formation of earth, some woody part present in the earth must have gradually converted into oil and gases. These materials being liquid and gas will tend to occupy free space where its potential energy is minimum. Once this process started, to keep the centre of rotation of earth axis such that its gravitational field is kept to the minimum, its angle to rotation must have gradually adjusted to keep the entire body thermodynamically stable. The tilt in the axis of rotation which we experience to-day might not have been there right from the beginning of the formation of earth. When human beings inhabited on this planet, the tilt of 23.45° in the axis must have already formed. Now human beings are creating new hollow/empty space in the earth and therefore in order to maintain the equilibrium of stability the tilt angle of the axis must readjust. In other words, the tilt axis is gradually changing - whether it is becoming more or less needs confirmation by actually measuring the tilt angle.

If we agree that title axis is changing/ modifying, consequently the weather system and related climate condition will also have to adjust accordingly. Perhaps due to this shifting of tilt angle, we are experi-

encing the climate change all over the world. Therefore a request is made through this article to measure the title angle once more accurately to relate the climate change. Once we have such data it may be possible to understand the climate change occurring on this planet which is being experienced on this planet.

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