

CO-EXISTENCE WITH NATURAL RESOURCES : A SUSTAINABLE SOLUTION TO CLIMATE CHANGE AND COVID-19 LED RECESSION

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Climate change on the planet earth is the latest phenomenon arising mainly due to imbalances between nature and human actions. The danger is so alarming that it is leading to even the extinction of many species. Human race is also facing unprecedented challenges in terms of increased cases of ailments, dampened capacity to work and so on.

COVID-19 experience in the year 2020 is unique and worldwide. Apart from its having health related implications primarily, it has generated economic implications also which are serious and long lasting. Many economies have been forecast to enter into recessionary zone during and post COVID-19 period.

The objective of the present paper is to analyze the concept of exploitation and co-existence in context of natural resources and human beings. The contention of the paper is that natural resources and human beings do not have a relationship of master and slave. Rather they are supplementary to each other. The depletion or decay or non-survival of one is detrimental to the existence of the other. It also establishes that only a consistent approach directed at advocating co-existence between natural resources and human beings will provide a sustainable solution to climate change related issues and COVID-19 generated recessionary situations.

The paper starts with explaining climate change and its causes. It goes on further explaining recession as concept and COVID-19 generated economic implications. The paper discusses then what natural resources mean establishing their linkages with the concept of exploitation and coexistence. The paper concludes with the assertion that coexistence and not exploitation of natural resources is the key to permanent solutions to climate change and COVID-19 led recession.

CLIMATE CHANGE

The term “climate” refers to various parameters through which Nature exhibits or manifests itself. These may include temperature, air density, air composition, air velocity, sea levels, glaciers formation and melting rate, rainfall – abundance or shortfall, and so on at a particular place or of the entire earth planet on average. These parameters are influenced largely by the transmission and distribution processes of energy radiated from the Sun. Winds, clouds, ocean currents, glaciers etc become the vehicles of these processes.

Climate change in its broader sense refers to change in various parameters and characteristics through which climate is measured, defined and explained. These parameters may include temperature, air density, air composition, air velocity, sea levels, glaciers formation and melting rate, rainfall – abundance or shortfall, and so on. Any change in any one or in any combinations of these parameters is described as climate change. However, these changes have to be on long term basis and not on momentary or short-term basis.

The World Meteorological Organization (WMO) coined the term “climatic change” in 1966 to describe the fluctuations in climate. However, in 1970s, the term “climatic change” was replaced by “climate change” to make the connotations of the term wider. Climate change now refers to change in the climate on long term basis occurring either due to abnormal natural upheaval and processes like tsunami, severe earthquakes very high on rector scale etc. or due to human activities intensely carried out to impact the climate related parameters like creation of green house gases through vehicles, industries operations, artificial cooling and heating plants and so on. Climate change is now universally accepted term and is used at all global platforms and forums unequivocally. Some of these renowned forums include the UN Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC) etc.

REASONS OF CLIMATE CHANGE

Climate change may occur due to many factors. Some of these factors, as mentioned in the previous paras also, are natural forces and natural processes which are happening on continuous basis as part of nature. These natural processes are sometimes too slow to exert any influence on the climate, sometimes are moderate to have moderate and short-term impact on climate, and sometimes are very intense and severe to have lasting and great impact on the climate. The impact in the last case is sometimes so deep that it changes the basic parameters of climate for centuries together. These types of natural

processes include eruption of volcano, movements of seismic plates, creation of mountains, hills, creation of new islands and / or submerging of old islands in oceans, change in the inclination angle of the Earth, change in the rotational period of the earth around the sun, change in the solar radiation due to fluctuation in storms within sun, drift in continents and so on.

The other category of factors that is instrumental in bringing forth climate change is related to human factors or non-natural factors. The actions and deeds of human beings have been creating so much pressure on Nature that climate is getting changed. Emission of green house gases has caused depletion in the ozone layer, forest cutting in an unimpeded and thoughtless manner has caused less availability of oxygen in atmosphere, more erosion of surface area, expansion of desert areas, extreme temperature situations in the same or similar geographical areas and so on.

Though there are both the factors – natural as well as human activities - responsible for initiation of climate change, the general connotation of the term by which it is understood in the public as well as among expert groups is change in climate caused by human activities.

One important point to mention here is that though many a times climate change may be sudden or immediate but for a lasting change, a time period of centuries may be the transformation period. Some of the impacts which are visible, for example, today were triggered by the factors or incidents which took place centuries ago.

RECESSION

Business operations in any industry move in cyclical manner. Ups and downs in the business and industry are the characteristic features without exceptions.

Ups are called boom periods when production is high, sales are great, profits are voluminous, employability is enhanced, demand is high, spending is high, money circulation and liquidity is more and the overall sentiments are optimistic, cheerful and encouraging. At the macro level also, the economy is said to be in boom when gross domestic product (GDP) is growing, household income increases, overall capacity utilization of installations and establishments is optimum, exchange reserves are at their peak, so on, so forth.

Downs as opposite to ups are termed as recession in economic terms. Indicators are just reverse to what is described above. If recession is firm or industry specific, then there are dampening effects on demand, supply chain, production, profitability, industry specific employability and so forth. If recessionary trend sets at macro level in the whole economy, then it is characterized by the indicators like increased unemployment rate, less productivity, low household incomes, higher cases of insolvencies, fallen GDP rate, reduced investment opportunities and expenditure etc.

In some developed countries, recession is said to set in when there is negative economic growth (GDP growth rate) in two consecutive quarters.

COVID-19 AND ECONOMIC IMPLICATIONS

COVID-19 is no longer a myth now and is a reality. The uniqueness of the disease is that it is not confined to some specific geographical terrains, special temperature zones, special countries, special races, special age group. It has engulfed into it practically the entire globe with no sign of complete retrieval in the near future.

Apart from explicit health issues, COVID-19 has generated economic issues also. These issues are not only highly serious but all pervasive, omnipresent and ubiquitous. The germination of these economic issues is attributed not directly to COVID-19 *per se* but to the preventive measures taken to combat COVID-19. One of these measures said to be essential and effective is lockdown whereby, when observed strictly, the public movements are prohibited totally, transportation is completely suspended and all economic activities which need physical interaction and involvement are shut down. In the relaxed format of lockdown also, economy goings-on are dampened leading to large scale unemployment, scale down of industrial production, wage cut or retrenchment of employees, less household income resulting in less spending, less demand which creates pressure on production units to produce less. Thus a new vicious circle is created. A new level of equilibrium, which is bound to be lower than the previous one, gets set in the market of labour, in capital market, in money market, in property market and at the level of firm and industry.

The overall symptoms are indicative of recession. Many economies in the world have already started facing this and many others are on the verge of facing it very soon as per their economic projections and predictions. GDP growth rate in countries like US is estimated to be negative while in countries like India, it is estimated to be lower than previous estimations. The overall situations – economic specifically – are grim and recession symptomatic.

As per the International Labour Organisation, an estimated number of 25 million will be retrenched through the world, if the pandemic is not controlled effectively. The economic implications have been predicted to be so severe that recession which would trigger will be in the nature of deepest recession during peacetime since 1930. Rising unemployment and worsening recession would build pressure on already revenue-starved governments to announce bailouts and stimulus packages which would lead to pressure on central banks and further triggering another vicious circle.

NATURAL RESOURCES

The resources on the earth planet are broadly of two types: first, man created resources and secondly nature created resources.

Nature created resources are mainly manifested in different formations or permutations or combinations of five elements (Tatva) of life viz. air, water, fire, earth and space. Hence, they include all which is not created by mankind. These include sunlight, crops, all animals, all living organs from microbes through single cell organs to humankind itself, land, all deposits of natural minerals within earth, entire atmosphere, vegetation, agricultural produce or crops etc. Majority of nature's living organs subsist on one another best described through food-chain process.

Even so-called manmade resources, if investigated deeply, use natural resources in the process of making or creating those resources. At the initial or basic level of process, it is natural resource which is used as the raw material to produce manmade resource. Some natural resources are used directly like air, sunlight etc., while some are used after processing like petroleum, ore, deposits in earth. Some are used directly as well as indirectly both. These include the examples of vegetables, fruits, water etc which are consumed directly in the raw form and the processed form as well.

COEXISTENCE WITH NATURAL RESOURCES AS A SUSTAINABLE SOLUTION TO CLIMATE CHANGE AND COVID-19 GENERATED RECESSION

It is no denying the fact that the subsistence of human race primarily depends on natural resources – be it earth, air, water or anything extracted therefrom. In fact, human race itself is a part of nature.

However, things started deteriorating with the belief which considered *human beings not as part of nature but apart from nature*. This belief generated actions which helped evolve the perception that human beings are not only superior to nature but they have all rights to dominate it for their self-consumption, comforts and use. These actions were so severe and cruel to nature that imbalances started creating in the environment disturbing the food chain and jeopardizing the natural rejuvenating power of nature.

The industrialization started in 19th century necessitated the availability of raw material in huge quantities. The newly started industrialization also gave birth to the new culture of “consumerism” where the consumption was not need based but life-style based. This created artificial demand also exerting pressures on producing units to produce more and so to acquire more raw materials. It resulted in an ugly and dangerous process wherein the extraction of raw material from nature was at a higher pace than its replenishment rate which takes place automatically (or to say, naturally). Industrialization led life style and new inventions and innovations taking place then increased the demand for energy multifold. The energy demand to the extent of 80% nowadays is met by extracting fossil fuels like coal, gas and oil. There are other non-renewable resources also which are exploited by humans in non-proportionate and irrational manner. These are minerals, precious metals etc used in industry or for personal consumption. Even agricultural activity is considered as a drain to natural resources as it hinders the growth of natural environment and natural vegetation.

The “exploitation of natural resources” – a phrase generally used to explain a situation where rate of extraction and use of natural resources for economic growth is more than the rate at which these resources recoup. Some of these resources are even non-renewable. Due to exploitation of these resources, many environmental degradation related issues have emerged. These issues are very serious and include deforestation, increased rate of soil erosion, expansion in desert areas, all types of pollution – air, water, underground water, soil, noise etc, depletion of ozone layer causing cancers and other health problems, increased number of natural calamities and disasters and so on.

The exploitation of natural resources has created a chain reaction which ultimately has been culminated into “Climate Change”.

The coexistence theory in its abstract form refers to the survival or existence of two entities which exert opposite forces on each other yet live in the same or similar environment giving enough space to each other to grow and sustain. Their opposite forces are to be operated in such a way that imbalances are not created in the system which would disturb the equilibrium patterns also.

In context of natural resources, the coexistence theory refers to relationship between human race and natural resources. The problem of climate change referred to in previous paras can be solved only through applicability of coexistence theory.

The root cause of present alarming situation of “climate change” as discussed above is the irrational extraction or “exploitation” of natural resources in the name of economic growth. The solution, therefore, lies only in obviating the cause. The theory of coexistence removes this cause. In context of human race and natural resources, the coexistence theory tells:

1. The human beings will have to respect and honour the existence of nature so that in turn it may get the same. That is way they both will survive and flourish.
2. Humans should restrict their consumption so as not to exert limitless pressures on natural resources.
3. Whatever resources are extracted from nature should be replenished or restored by human acts. For example, forest cutting should be followed by a massive or multiple plantations drive. Water extraction should be supplemented by rain water harvesting practices and regulations.
4. Drainage to rivers should be permitted only after proper sewer treatment.
5. Industrial and chemical waste should not be allowed to mingle with natural resources without proper decomposition and purification.
6. Wherever possible organic waste should be converted into manure to replenish the land itself.
7. The artificially created demands should be curtailed.
8. There should be minimal or no human interventions in natural processes. These interventions lead to imbalances or disequilibrium in nature triggering further the changes in climate. Some of these processes are even too complex to be comprehended by humans in correct perspective.
9. Any human activity which may lead to temperature variations in atmosphere should be monitored, discouraged and alternate solutions should be sought for.

As mentioned in previous paragraphs, COVID-19 is prompting recession in almost entire world since practically more than 150 countries are in clutches of coronavirus. Treating the virus has to be on priority, but simultaneously recession related challenges are to be met successfully to impart sustainability and stability to the world economy in longer term.

Here also, the concept of coexistence as applied to human beings and natural resources is perceived to provide the solution. The following assertions establish this fact:

1. Since the economies run on the optimal utilization of resources, the human race living in coexistence with natural resources will ensure all time availability of resources. It will be possible as the undue pressure on resources due to artificial demand will be subdued.
2. There will be a better and more judicial resource allocation for production capacities.
3. Decreased wastages and recycling of materials will initiate a new normal after initial glitches.

4. With rivers' self-cleaning, air pollution levels dipping to green zone from red through orange, oceans showing revitalized natural shores, skies beaming with millions of twinkling stars just within few weeks of lockdown period drove home the fact very clearly that millions of dollars may be saved on these ventures if human interventions with natural resources are blocked.
5. The money so saved may very well be redirected to other sectors so as to boost up the economy.
6. The economy which is based on harmony with nature and natural resources will be a sustainable and stable one since there will be interdependence and interlocking of economy and resources in such a way that there will be cyclical relationship between them where overutilization of resources will be done away with. Simultaneously, there would be economic activities which will be more in the nature of giving back to nature what was taken from it rather than having a one way process only.

CONCLUSION

The above discussion clearly brings forth the fact that climate change and recessionary trends are caused due to the mindset which advocates for the exploitation of resources with a strong notion that humans are the masters of natural resources and as such have full right to consume and exploit these resources discriminately and discreetly to their utmost benefit. The concept does not regret in overusing the resources even before they get recharged. This has resulted in the depletion of the precious natural resources leading to climate change issues and finally to recessionary patterns of the economies. The patterns have been aggravated due to COVID-19 related peculiar situations.

The concept of coexistence of humans with natural resources treat both as equals where the survival of both is dependent on each other. The notion assumes that natural resources should be extracted and used only to the extent they are needed and upto the magnitude they are replenishable. We should not consider ourselves as the owners of these resources, rather as the obligatories to the resources.

The moment we start practicing this concept of coexistence with nature, the alarming situation of climate change will also be contained. And slowly the situations will turn out to be favourable. Concept of coexistence with nature is also instrumental in obviating recession as the economies will improve on long term basis with the natural resources available on sustainable basis which will ultimately bring forth sustainable development with nil probabilities of recessions setting in.