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IS SUSTAINABLE DEVELOPMENT, ONLY A MIRAGE?

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Abstract:-Human-led growth and development limits the growth of natural world. It is equally important for society to save the natural living heritage in the wild that continues to evolve in nature e.g. medicinal plants, wild relatives of crops, lest we lose it one day due to voluntary interference in the eco-systems. Ramifications are deep and solutions are constrained by limited capacity of humans (due to limitations of technology and institutions), in light of which unresolved problems grow. It is to see how much we can save.

Keywords:Sustainable development, human- led development, natural development, mitigation, adaptation, traditional system of medicine, modern system of medicine, cisgenics, transgenics, lifestyle innovations.

INTRODUCTION:

Growth requires usurping more resources and economics falls short of the target in tackling the menace of ecological degradation and sustainable development. Growth of national economy always adds disturbances in the natural ecosystems and natural machinery of weather. If continued it would require many Earths to exploit resources even to maintain the current standards of civilization. Through the idea of 'sustainable development' we have to step into the future i.e. what should be our future course of development?

Discussion: Development is translated to physical growth as is seen in biological world. The phenomenon of growth and development is perfectly intertwined and goes hand in hand. It follows certain evolutionary paths through the process of natural selection that have been documented to certain interpretable levels. Selective development is characterized by processes of directive, disruptive and stabilizing elements that turn the wheel of evolution with dynamism between them in space and time. Similarly, in civilized societies, there is a definite pattern of evolution in every human endeavour such as national economy indicated by material growth and development. There had been two courses of development- human led (development of a physical entity or a process that cannot reproduce by itself or incapable of reproduction e.g., development of seeds of crops with terminator genes that makes it incapable to reproduce, hybrid seeds produced by non-natural process; machines) and the natural. In the discourse of civilization new and better techniques and material have replaced the old ones because humans have innovated by successive enrichment of thought that started the process. Humans that tend to exercise more control over natural resources and nature is indispensable for survival.

The fundamental requirements of food, health- care, clothing, shelter, not for only survival

but to live a healthy life in a stable society and sound environment, as the ultimate goal is 'health' (mental, physical and social), justifies development by human efforts. Identification and recognition of shortcomings or limitations or harmful effects of misuse with the help of available modern tools and techniques, in every sphere of human endeavour, always pushes for advancement, thus keeps in motion the wheel of development. For example, large scale (temporal and spatial) use of inorganic fertilizers, pesticides and herbicides that reportedly resulted in ecological degradation has now been termed as unscrupulous. Similarly, mining accompanies destruction of natural habitats. In sustainable mining and agriculture, would mitigation for economic and environmental reasons require the adoption of precision mining in the former and precision farming in the latter? In mining sector, would restoration of disturbed natural habitats require introducing native or area-specific plant species for spontaneous initiation of the process of regeneration and gradual recovery? (It is under experimental stages of development). On the other hand does adaptation in agriculture practices would mean introducing micro-flora in the soil from external source and beneficial plant species or restoring organic farming which has always been there in the countryside? Organic farming requires organic fertilizers, pesticides and herbicides, native varieties of seed, appropriate technology that boosts the beneficial biodiversity and making the ecosystem viable. Is it feasible? Or to what extent it can be adopted? Or to what extent organic farming is saved?

We have seen several revolutions that have changed the course of civilization. One such revolution is industrial revolution. Industrial revolution inspired technological evolution is followed by large-scale ecological degradation and disturbances in natural machinery of climate. In some quarters of the society it is still held that scientific sources are equivocal about anthropogenic change in climate which has dawned like a hoary reality both at local as well as global levels. Buzzwords like growth, development, urbanization aren't culprits by themselves but emerged in new form of challenges for survival of mankind. Therefore, strategies for combating change in climate came to be known nowadays. It has already raised several philosophical questions as how to devise ways and means for tackling change in the huge machinery of weather that is not fully understood. The targets for development set by various national governments always push for more growth usurping more resources. Governments of developing nations have yet to provide even the basic facilities to its citizens. If material product, machinery, business cycle or structural establishment has a definite life-span, removal or declaring them obsolete out-rightly would affect growth and development of a national economy and further enhance usurping of resources, irrationally.

If we finally become successful in mitigating green-house gases, this would symbolize filling one void and creating the other, simultaneously, still undefined and unidentified. Then, what would be the fate of our sacred rivers, forests and the oceans? Several perennial rivers and seasonal streams are on the verge of becoming ecologically dead but reportedly, a few of them already are e.g., in the Philippines. The targets for development set by various national governments always push for more growth usurping more resources. If material product, machinery, business cycle or structural establishment has a definite life span, removal or declaring them obsolete out-rightly would affect growth and development of a national economy and further enhance usurping of resources, irrationally. Any additional facility or up-gradation of technology will only require more resources. Until now, we have not blacklisted out-dated or obsolete technologies that carry on the burden much farther than we realize. What have we learnt from experience of replacing ozone depleting substances with efficient ones? Ramifications are deep and solutions are limited (a shift from ozone depleting potential to global warming potential and also after achieving efficiency and quality we have seen a rise in ozone-depleting gases due to growth in the number of people who availed facilities that use such gases). Rectifying one problem creates new breed of problems- individual and systemic (and can lead to social crises). Therefore, technology alone isn't going to help in a world facing fluctuations or a progressive change in climate because solutions through technology have a limit and we solely depend on mother 'Nature' e.g., if a catastrophe that results into extreme change in climate thereby causing extinction of food plants but all the fauna and flora that have coexists and co-evolved in a particular climatic zone, ex-situ conservation of only food plants in the form of seeds or germplasm will not work because we cannot reintroduce them and the wealth will be lost forever. It has put a question mark on our survival if the catastrophe covers the entire planet.

Industrialization and institutionalization have also seen co-evolution for organized activity and simultaneous growth. New and better institutions have replaced the old ones and improved performance in order to make economic growth a sustainable activity. Ever changing scenarios and dynamism between various factors in space and time influence the validity of institutions that constantly innovate thus putting before them new and challenging tasks e.g., 'environmental impact assessment'. However, it has not been reportedly successful in breaking the resistance of the people such as farmers and tribal people due to information gaps and suspicions about the magnitude of large projects- industrial as well as infrastructural- for qualitative and quantitative transformation in social and environmental milieu that is far more important than the immediate benefits. Adverse impact that could be assessed with the available tools and information and remedied through compensation in any form such as providing funds for biodiversity conservation, rehabilitation packages or plantations for livelihood purpose or restoration of ravaged area have proved less than effective. Survival without the roots becomes a challenge and they become environmental paupers. It is neither socially nor environmentally reasonable options as it leaves us with backlogs, generates corruption and becomes soared recipe of unresolved problems, but question of survival puts pressure. The cumulative impact of such an activity would be enormous and creates a potential force having contiguous impact on the biodiversity and the living beings e.g., actual impact on local ecosystems sustaining organic farming, livestock and medicinal flora. It culminates in a sustained negative impact on the economy due to loss of natural wealth. It is therefore essential that we must discover the missing links in ecological studies.

In the area of conservation science the rationale is to save not only the biodiversity to which we have an intimate relationship for ages such as native varieties of seeds, livestock and medicinal plants, fishes but also the cultural and lifestyle diversity to ensure food and health security. It puts us in a quandary where there is enormous pressure of cattle grazing on one hand and the protection of wildlife and natural ecosystem on the other. Protecting biodiversity elsewhere doesn't make any sense so long as we neglect this aspect.

With commercialization of traditional indigenous knowledge of the communities, particularly the tribals, there seems to be an enhanced possibility of transforming the lifestyles of the people by choice. One doesn't actually know that in doing so one is breaking the natural cycle of development and wilfully interfering with the evolution of traditional indigenous knowledge, for example, traditional system of medicine using medicinal plants. Therapeutic evaluation supports the development and evolution of both the streams of knowledge namely traditional and modern system of medicine (their sources are different). It appears that either the streams have been integrated or the traditional system of medicine has been absorbed in the system of modern medicine, but it is otherwise. It is 'disruptive selection'. Due to its very own nature the growth and development under the mainstream dominant doctrine the resources used in the system of modern medicine will gradually and continuously exert pressure on the wild flora up-to extinction (some of them already are). Conservation efforts through tissue culture will also not work because it is not known whether plant life could sustain itself in controlled environs devoid of natural selection/evolutionary pressures. Tissue culture is an answer only for management so that the plants will not become extinct in the wild. The other option would be to artificially synthesize such organic molecules but the versions more effective than the natural ones. Can the same principle be applied on food? Various national governments have ventured into clinical trials to scientifically validate the therapeutic potential of medicinal plants to revolutionize the field of medicine. Scientific analysis through clinical trials will only prove that as already exists because it is time -tested. It could be advantageous if applied on new communities (due to diversity of genetic make -up) who traditionally not consuming organic medicines and also to discover therapeutic potential of plant species with known medicinal properties for new ailments. It would also help reduce the time period and helps expedite the process to discover new plant species having medicinal properties. Much of the new developments in the manufacturing and marketing of new products have drawn on traditional knowledge and hitherto non-commercialized products that originate from unexplored territories. In light of the extinction of traditional knowledge if the current trend of urbanization engulfs the traditional communities, lifestyle disasters may not remain theoretical but become a

reality. Will the idea of sustainable development prove a fiasco? The chapter on history of villages is absent from the books on 'big history'. Then how could we derive strength and improve quality of life from within.

Besides socio-economic and ecological un-sustainability, the two main consequences of industrialization have been the decline in soil health and the seeds putting burden on professional and industrial food technologists to enhance nutritional values artificially by certain additives. The adverse impact is evident on the health of humans and milch-cattle. Besides, there is ever increasing suspicion from every nook and corner of the society towards transgenic seeds and crops. The technologically fatigued food industry is ready to grasp the transgenic farm products. Have all other options been exhausted? The technology of cis-genics would be an alternative. Without in-situ conservation of native varieties of seeds by the farmers, it cannot be feasible to sustain agriculture anywhere in the world. However, it is noticeable that yields through organic farming have been equal to inorganic farming but the qualitative gaps are wider.

The idea of organic farming may be new but it has always been there in the countryside. However, as the green revolution filled the granaries, crises in other sectors slowly crept in. It was not recognized or registered earlier but intensive research carried for several decades by investigations in the field of medicine, sociology, anthropology and agriculture, forestry, hydrology and atmospheric sciences revealed the adverse impacts on life. It warned us of impending crises in food, healthcare, clothing and shelter in addition to availability of clean air, water and soil.

CONCLUSION:

As the ultimate goal of all the activities in different sectors of a national economy ranging from 'primary sector' to the 'tertiary sector' is to meet the fundamental requirements of food, healthcare, clothing and shelter (e.g., energy in the form of electricity isn't an end in itself but a means to achieve an end), not only to live a healthy and quality life but to meet the ever increasing demand of a growing human population therefore, growth and development in this regard that has led to industrialization and urbanization, emerged in new forms of challenges for survival of human beings.

It is never-ending human urge that forces mankind to search and explore the surroundings in order to survive and eliminate threat. The challenge before various national governments is to create green livelihoods besides meeting the entire fundamental requirement to sustain human life. With equitable distribution of material wealth and knowledge we can dramatically increase the social health of the individuals. It puts a limit where the use of resources depends on the nature of work. Use of resources for survival also depends on the geographical location of a country. Therefore equitable distribution of resources is practically impossible. It is to see to what extent we have and could become successful in improving the quality of life by technological as well as institutional advancement without compromising social and environmental health.

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REFERENCE:

1. Climate change 2007: The physical science basis. Intergovernmental panel on climate change Working group- I fourth Assessment report.
2. Living planet report 2006. World Wide Fund for Nature International, Gland, Switzerland.
3. MukulSanwal. 12 April 2008. Sustainable development perspective of climate change. Economic and political weekly.
4. Helmut Haberl, Fridolin Krausmann, Simone Gingrich. 25 Nov 2006. Ecological embeddedness of the economy. A socioecological perspective on humanity's economic activities 1700-2000. Economic and political weekly.
5. K. N. Ganeshaiah, R. Uma Shankar and R. Vasudeva. 25 July 2007. Bioresources and empire building: What favoured the growth of Vijyanagarempire? Current science, vol 93, No. 2.

6. Arnab Chatterjee, Sitabhra Sinha and Bikas K Chakrabarti. 25 May 2007. Economic inequality: Is it natural? Current science, vol. 92, No. 10.
7. Amit Bhaduri and Medha Patkar. 3 Jan. 2009. Industrialization for the People, By the People, of the People. Economic and political weekly.
8. Ajai, A. S. Arya, P. S Dhinwa, S. K Pathan and K. ganesh Raj. 25 Nov. 2009. Desertification/land degradation status mapping of India. Current science, vol. 97, No. 10.
9. Gamini Seneviratne. 10 March 2009. Collapse of beneficial microbial communities and deterioration of soil health: a cause for reduced crop productivity. Current science, vol. 96, No. 5.
10. M. narayanareddy and N. H. Rao. 10 Jan. 2009. Integrating geo-spatial information technologies and participatory methods in agricultural development. Current science, vol. 96, No. 1.
11. Diwakar Sharma and S. F. Wesley Sunderraj. 10 Feb 2005. Species selection for improving disturbed habitats in western India. Current science, vol. 88, No. 3.
12. Paul A. Wender and Benjamin L. Miller. July 2009. Synthesis at the molecular frontier. Nature, vol. 460.
13. Sanjay kumar. 28 July 2001. 'Indigenous communities' knowledge of local ecological services. Economic and political weekly.
14. Harm de Blij. 2008. The power of place: Geography, destiny and globalization's rough landscape. Oxford University Press.
15. Sunil Ray. 3 April 2010. Economic growth and social cost: Need of institutional reforms. Economic and political weekly.
16. K. N. Panikar. 14 Feb 2009. Culture as a site of struggle. Economic and political weekly.
17. G. S. Mudurand and Ajay Sukumaran. 8 Feb 2010. Row reveals order to lift plant protection. The telegraph.
18. Mayank Tripathi. 10 Oct 2008. Plant tissue culture- answer to biodiversity conservation? Current science, vol 95, No. 7.
19. E. Jacobsen and Karba N. Nataraja. 10 June 2008. Cis-genics- Facilitating the second green revolution in India by improved traditional plant breeding. Current science, vol 94, No. 11.
20. M. J. Prabu. 29 June 2009. A farmer's experimentation leads to a highly popular drumstick variety. The Hindu.
21. Laurent Pordie. 1 May 2010. The politics of therapeutic evaluation in Asian medicine. Economic and political weekly.



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