

Alternative paradigm of development - Tagore & Gandhi

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Introduction It is necessary first to clarify why we are talking about alternative paradigm of development. We are today at the brink of a collapse of society & nature. So much so that a famous microbiologist, late Dr. Frank Fenner, Emeritus professor of Australian National University, who was responsible for the eradication of variola virus that causes small pox, commented before his death a year or so back that human species will become extinct from earth within 100 years. Poets are seers. They could apprehend this collapse much earlier. W. B. Yeats, the famous English poet who wrote the introduction to Tagore's Gitanjali when it was first published in English in 1912, wrote, " Things fall apart/ The centre cannot hold/ Mere anarchy is loosed upon the world/ The blood-dimmed tide is loosed/ The ceremony of innocence is drowned/ The best lack all conviction/ And the worsts are full of passionate intensity." Our post Tagorean famous Bengali poet Jibanananda Das wrote in the middle of the last century, " A strange darkness has descended upon the world/ Those who are blind they see the most/ Those who do not have love, affection & stirring of sympathy in their heart the world does not move without their good advice." It is a grotesque world. Blaise Pascal, the famous philosopher & mathematician, 21 years senior to Newton, born in 1621, warned mankind with these words, " Humankind is only a very small link in the immense web of nature, but It is the only one that through thought understands nature; it is the only species on earth to be responsible for the earth and will be able to transform it for the better or for worse." Humans did not listen to such warnings & have been plundering Earth's resources wantonly causing the collapse of society & nature. We have seen in history such collapses in Harappan, Egyptian & Babylonian civilizations. Let us now take a review of the nature of collapse in societies.

Societal collapse India & third world If we look at India what do we find at the beginning of 21st. Century. Every 3 second a child dies of malnutrition, about .1 million farmers committed suicide during the last 7 years or so, during the last 66 years after Independence more than 60 million people, adivasis, farmers & poor, have been ousted from their hearth & home without proper rehabilitation in the alter of Development. India has the hungriest people in the world today. Nobel Laureate Amarta Sen & Jean Dreje in their latest book, "An uncertain Glory; India & its contradiction", have shown that if we take all the social parameters of development then out of six South Asian countries India's position is 5th., Just above Pakistan. But there has been a phenomenal increase of billionaires in the country after Independence. Only 10% rich of India own 50% of India's wealth. In the last two decades in spite of high growth rates, employment in the formal economy has grown by less than 3 million while the labour force increased by 100 to 125 million. World Bank revealed that in India environmental damages knocks off 5.7% of our GDP in the form of pollution- related diseases, loss of land productivity & so on. India's current account deficit is gallopingly increasing. In 2012-13 India's current account deficit was \$ 88 billion, more than Rs. 500000 crore. 2011 data shows that India's share of the world's GDP is only 5.65%. But what was the position of India before India lost its freedom? Around the time of Battle of Palasy in 1757, the Indian subcontinent accounted for 25% of the world GDP. This was slightly more than all of Western Europe's share (Britain included) taken together. Chinese Empire's share was over 30%. In 1760, 73% of the then industrial production used to come from India & China alone. 80% of world's economic production used to come from Asia. The whole situation changed after colonization was established from the middle of the 18th. Century.

If we take the Third world as a whole: Out of 6 billion people in 2000, 4.8 billion lived in the 3rd. world. 95% population growth took place in the third world. Whereas, the first world had a growth of 0.4% only. World Bank Report in 2007 shows that 1.2 billion people earn less than \$1.25 per day & 2.2 billion earn below \$2 per day. In least developed countries 64% live in abject poverty & in rural areas 71%. Every year 6 million children die under the age of 5 due to hunger. Every minute 21 children die of malnutrition related diseases. Every day 25000 people die from water-borne diseases. Every year 1 million women die from preventable reproduction related diseases. In Africa 20% children die before age 5 & in Asia 5%. 70% of deaths are due to malnutrition, diarrhoea, respiratory diseases, measles & malaria. 1.1 billion do not have access to safe drinking water, 2.6 billion do not have proper sanitary facility, 1 billion illiterate & .854 billion people go hungry everyday around the world. So, we have an overview of the societal situation in the third world. But, what about the First world? First world Let us have a look at the acme of the first world America which has only 5.6% of world population but consumes 40% of world's resources most of which is non renewable. International Council of Museums, the only world body of museums recognized by the UNESCO, hold every three years a world museums congress. In 1989, the congress was held at den Hague, capital of Holland, in which the present writer, a science museum man, was present. In this congress an American thinker Neil Postman gave the keynote address. He said "We have already organized our society to accommodate every possible technological innovation. We have deliriously, willingly, mindlessly ignored all consequences of our action. And have, because technology requires it, turned our backs on religion, family, children, history & education. As a result of what we have done, American civilization is collapsing. Everyone knows this to be true but seems powerless in the face of it. Here is a partial account of our technological dream: By 1995, 85% of our children will leave in one -parent homes. In our large cities, fewer than 50% of our children graduate from high school. This from the culture that invented the idea of education for the masses. And while the average American youngster delights in watching 16000 hours of television by age eighteen and

approximately one million television commercial by age twenty, one-fourth of our population – sixty million people – is illiterate. Every year, forty million people change residences and several million have no residences at all, living in the streets & subways. From 1950 to the present, the incidence of violent crime has increased by 11000 percent. And two out of ten Americans spend some part of their life in a mental institution. Our cities are choked with traffic: our water supply is poisoned with lead & medical debris: our rain's acid: our people consume more aspirin per capita than any other population in the world: our infant mortality is one of the highest in the Western world and our youngsters are frying their brain with drugs." If we look at the economy of USA which consumes 40% natural resources of the Earth we find: USA is the largest & the longest indebted country in the world with present total debt at 15.77 trillion dollars, 12 million unemployed, depending on free food 46.4 million, homeless 3.5 million, without health insurance 44 million, health insurance not sufficient 38 million. When the housing bubble burst & US economy was in great crisis the state came to the bankers' help & doled out \$700 billion. Tagore & Gandhiji understood that the modern industrial civilization will collapse & the Western paradigm of development for India will be suicidal. Tagore tells the villagers in a meeting in 1930, "It is necessary to tell you a fact. Many of you will not be able to feel how much true is the fact. I never could imagine that I shall witness so much of distress from different countries in the West. They are not in happiness. There is no doubt that huge load of goods have been accumulated. But there is deep untrust all around. People cannot ever remain contacted with each other in cities - in Calcutta where we stay and the place we know, there is no relation with the neighbours in their happiness or during some miss happening. Socialization is the heart of village. This socialization can never be achieved in a town. One reason for this is that, as town is large social relation becomes loose. Another reason is that because of business & other special needs & opportunities population becomes large. There humans primarily want to satisfy their own essential needs, not that of others. Due to this even when people are living in the same locality they don't feel ashamed if they don't know each other. With the complication of our life alienation is gradually growing." English poet T. S. Eliot expressed the same alienation when he writes, "The desert is not only in the southern tropics / The desert is around the corner/ The desert is squeezed in the tube train/ And the desert is in the heart of your neighbour." In the memorable film 'Modern Times', Charlie Chaplin makes a satire of industrial civilization where humans are crushed by technology. Tagore in 1905 writes 'Noose of Luxury'. In 1922 he writes the drama 'Muktadhara' where he breaks away a dam. In 1924 he writes 'Raktakarabi', a great critique of industrial society. In a lecture in China in 1924 he says, "We have for over a century been dragged by the prosperous West behind its chariot choked by the dust, deafened by the noise and humbled by our own helplessness and we agreed to acknowledge that this chariot drive is progress & that progress is civilization. If anyone ventured to ask "progress towards what" & "progress for whom" it was considered to be peculiarly & ridiculously oriental to entertain such doubts about the absoluteness of progress. Of late a voice has come which is bidding us to take count of not only the scientific perfection of the chariot & but also the depth of ditches lying across its path." What are 'chariot' & 'ditches'? Chariot represents the industrialism run by science & technology & ditches represent the breakdown of society & nature that we witness today. In 1940, one year before his death, Tagore wrote a letter to the famous Bengali poet Amiya Chakrabarti, who was then teaching in America, "Using Brahmin's brain, Kshatriya's arms & Shudra's services today's commercially minded Europe has become irresistible. But I can see their feet on a downward slope towards extinction." The rich & poor divide all over the world is increasing. The ratio of national income in 1920 between the richest & the poorest was 3:1. In 2001 it became 100:1. The ratio of income between richest 20% & poorest 205 was in 1960 was 30:1. It became 74:1 in 1994. Only 3 billionaire's wealth is equal to the national income 48 under developed countries. Richest 20% currently enjoy 86% of world's income. Whereas, poorest only 1%. Let us have a look at the debt crisis. In 1970, the world's poorest countries, roughly 60 countries classified as low income countries by the World Bank (W.B), owed \$25 billion in debt. In 2002, it was \$523 billion. In 1970, Africa had just \$ 1 billion as debt. It shoots up to \$ 295 billion in 2002. For the poorest countries debts to multilateral institutions like IMF & W.B. was around \$ 70 billion. \$ 550 billion has been paid in both principal & interest over the last three decades on 540 billion on loans. Developing world now spends \$13 on debt repayment for every \$1 received in grants, as summarized by Jubilee 2000 campaign. Like Tagore Gandhiji understood that the Western paradigm of development will be disastrous for India. He wrote, "God forbid India should ever take to industrialization in the manner of the West. A tiny island kingdom today keeps the whole world in chains. If an entire nation of 300 million takes to similar kind of economic exploitation the whole world will be bare like locust." He further said, "Industrialism is going to be a curse for mankind. Exploitation of one nation by another nation cannot go on for all time. Industrialism depends entirely on your capacity to exploit foreign market being open to you & absence of competition.....India, when it begins to exploit other nations – as it must, if it becomes industrialized - will be a curse for the nation, a menace to mankind." He said, "It is a folly to believe that an Indian Rockefeller is better than an American Rockefeller." Tagore said, "at one side there is everything, on the other side nothing. Due to this the boat of civilization gets disturbed. Big inequality brings disaster." Today we understand the import of the words of wisdom of Tagore & Gandhiji. A new concept of Ecological Foot Print (EFP) has come in ecology. What is the environmental impact that humans make in different parts of the world? Carrying capacity of earth is only 1.9 ha. Per person. Already it is more than 2.3 ha per person which is 20% more than the carrying capacity of the earth. But what is the EFP of USA & other countries? EFP of USA is 10 ha per person, Australia 8 ha, Europe 5 ha & Asia & Africa 1.4 to 1.5 ha. If India & China having a population of about 2.25 billion decide to put an EFP like an American, that the .25 billion rich & middle class of India want to do (see the glittering shopping malls that are coming up in the cities of India) then the earth will be bare like locust in a few decades as Gandhiji had envisaged. The world is not becoming a desert because the poor people of the Third world do not consume much. Their EFP is much less than the carrying capacity of the earth. **Collapse of Nature** Let us now have a look at the collapse of nature. The major problem that the world faces today is the climate change due to global warming which is imminent. The following are the other problems that the world faces: Deforestation Biodiversity loss Water crisis Land degradation & desertification Pollution of air & water Oil spill Toxic & hazardous wastes Ozone hole Marine pollution & over fishing Melting of glaciers

Climate Change Regarding climate change tomes have been written. But I shall refer to a few points. James Hansen, Former Director of NASA's Goddard Institute of Space Studies, the foremost climatologist of the world, who appraised most the world about the dangers of climate change, said a few years back that we have, "at most ten years - not ten years to decide upon action but ten years to prevent such disastrous outcomes becoming inevitable." Scientist James Lovelock, the originator of Gaia Theory has commented, "an imminent shift in our climate towards one that easily be described as Hell; so hot, so deadly that only a handful of teeming billions would survive." According to US National Oceanic & Atmospheric Administration the concentration of CO₂ in the atmosphere is at its highest in the last 650000 years. Between 1979 & 2007 the level of CO₂ increased at an average rate of 1.65 PPM per year. Since the Industrial Revolution CO₂ conc. in atmosphere has increased by 30%, methane conc. doubled & nitrous oxide conc. increased by around 15%. Before the Industrial Revolution CO₂ conc. in air was 280 PPM by volume. By the end of 20

th Century it became 370 PPMV. Over the past 25 years or so the nitrous oxide conc. continues to increase steadily while the chlorofluorocarbon has reached a plateau since 1992 after Montreal Protocol. The growth rate of methane also has declined in recent years. But danger of methane increase lurks ahead that will be discussed later. A report in Nature, the important science journal, by scientists informed that if average temperature of earth goes above 2 degrees Celsius then there will be catastrophic changes. The Report said that if total release of CO₂ by 2050 is limited to 190 giga ton then the temperature can be limited within 2 degree. But the Report says that if the world reduces the CO₂ release by 80% even then the release of CO₂ by 2050 will be 216 to 325 giga ton. But a recent report says that carbon emissions must cease before one trillion metric tons of carbon have been emitted- a tipping point that will be reached in about 2040 under business as usual. Most climatologist calls for stabilizing CO₂ emission at 450 PPM

or less to keep temperature rise to 2 degree Celsius above pre- industrial level if we are to avert catastrophe. Climate change is causing extreme weather conditions, hurricanes, sea level rise, food shortages, unusual rains & dry conditions etc. I shall refer to a few issues. Glaciers all over the world & Arctic ice are melting. Scientists predict that within a few decades all Arctic ice will melt. What are its impacts? When Arctic ice melts then albedo, the reflection of sun rays, will be affected that will cause increased global warming. The melting of Arctic ice will affect thermohaline circulation. Gulfstream carries hot water from the equatorial region to the north. Due to evaporation the density of water goes on increasing & as it reaches between Greenland & Iceland millions of gallons of water go down gets cooled & like a conveyor belt takes the cold water to the equatorial region & thereby maintain the temperature balance of the earth. This thermohaline circulation slowed down in 2008. A similar situation arose 10800 years back & there was an Ice Age on earth. Such an eventuality may be there again due to global warming. There is a thin layer of phytoplankton on the surface of oceans which is a part of food chain. It also absorbs CO₂. World oceans absorb one- third to one half of CO₂ released in the atmosphere. This vital part of ocean ecology is being jeopardized because of global warming. In the ice of Arctic, methane, that is known as clathrate, remains stored for millions of years. If all Arctic ice melts then the methane, which is 20 times more greenhouse gas, will be released & a catastrophic situation will arise. Antarctic ice is also breaking up. If this ice melts then there will be a big rise in ocean height & many low lying areas will be submerged. Deforestation In the beginning of 1980's 17 million ha. of forest was logged of which 15 million was tropical forest. Even after all the world conferences each year 13 million ha. is lost today. Tropical rainforest covers only 7% of earth's surface. 50% of living species are found in tropical forests. We are destroying 50 million acres of rainforest each year. 500 years back USA had 3.2 million sq. Km of forest. Today it has only .22 million sq. Km, 93% lost. U.K has lost 95% of its forest. In Haiti, where Columbus landed, it had 80% of its land covered with forests Now very little left. India had 3 times more forest cover 100 years back. Brazil has lost .1 million sq. Km. Of tropical rain forest for conversion into grazing land, agriculture & coffee plantation. Since 1977, 18000 sq. Km. of Brazilian rainforest has been cleared annually. By this way Brazil has lost 95% of vast coastal rainforest. From 1998 to 2010, 14000 sq. Km of Brazilian savannah has been cleared. To supply timber to Germany alone the Third world logged .2 million ha. of forest. In the last 5 months of 2007, 1250 sq. miles (about the size Rhodes Island) of Amazonian rainforest has been logged. Global forest area shrink is estimated to be 0.2% annually which is equal to about 7% of India's land area. As a sentence is written 4 football field equivalent of forest is lost. Biodiversity loss Background rate of extinction of species before the advent of humans was 1 mammal in 400 years & 1 bird in 200 years. During the last 3 centuries 115 bird species & 58 mammal species have become extinct. Each year 100000 species are threatened with extinction. In 1980, biodiversity loss was 1 species per day. In 1994, 10 to 100 species per day. There may be 5 million to 50 million species on earth. But scientists have studied only 1.4 to 1.5 million species. It means we know very little about the species but they are vanishing at a very fast rate. Indian farmers from their practical ecological knowledge had developed 120000 strains & 42000 varieties of rice. But with the inroad of high yielding rice varieties in the 60s gradually majority of indigenous varieties of rice has disappeared. Over 300000 samples of indigenous plants kept in the National Gene Bank have gone out of cultivation. India has now just 12 varieties of food which provide 80% of food energy. Nearly 140 native breeds of farm livestock are facing survival threat. Within the next two or three decades 350 bird species, 200 mammal & about 2500 plant species are on the verge of extinction. In 2007, 12% of world's bird species, 20% mammal & 39% of fish are threatened of extinction. [Water crisis](#) It is estimated that by 2025, 3000 million people of the world will be in severe water crisis. 1.6 billion people live in the world in water stress areas. By 2025, demand of water in India will be equal to the utilisable water available in India. 50 years back in India pumping of underground water was one- third of that of present, 70% of which is used in agriculture. Water used in the golf grounds of the world can meet all the drinking water needs of the world. USA on an average uses 5980 litres of water per capita per day. Whereas, India uses only 1800 litres per capita per day. Between 1965 & 1974 Japan's use of water for industries grew from 50 million cubic meters a day to 120 million cubic meters a day. In industrialized countries 67% of grains are used as fodder for animals. To produce 1 KG of rice 2250 litres. of water is needed, for 1 KG of wheat 250 litres, for 1 KG of sugar 9000 to 10000 litres & 1 KG of beef 46800 litres of water is needed. Water needed to produce 1 KG of sugar can produce 130 to 200 KG of millet. So a country has to decide for food security what kind of agricultural practice we should adopt. It is said that future war will be on the issue of water. Already we observe clashes between states on the sharing of river water. Contract farming is being introduced wherein foreign countries are contracting the kinds of products Indian farmers will produce for them. It is a type of demand of water from water rich countries like India by the water poor countries like Middle East. [Land degradation & Desertification](#) Globally 25 billion tons of top soil is eroded every year. In this India's share is 6 billion tons. Due to soil erosion, 20 million ha. of cultivable land is lost per year globally. Desertification threatens one- third of earth. Desert engulfs 0.6 million ha. per year. Sahara during the last 60 – 70 years has engulfed 6'5 million sq. KM. areas. Our Thar Desert is advancing at a rate of 0.8 KM. per year. The Third world loses 6 million ha. to wasteland every year. 3500 million ha. is being affected due to desertification, one third of which is in severe stress. In the last few centuries world's millions of hectares of grassland have been converted to agricultural land. America's Great Plains, South Africa's veldt, steppes of erstwhile USSR, Brazil's Campas and Argentina's Pampas are being lost due to wrong land use. 1.9 billion Ha. (Agricultural land of 2.6 billion farmers) of agricultural land has been degraded. In October 2009, Luc Guocdja, ex secretary of UN Convention on Climate Change reported that based on current trends close to 70% of land surface of earth will be affected by draught by 2025 compared to 40% today. Dry land covers 40% of earth's surface and support one- third of world population. These are under great risk of desertification. According to FAO (UN) 50% of world's agricultural land are seriously affected by salinity & water logging. In India 10000 sq. Km. of land area are abandoned every year because of salt encroachment. It is estimated that 10 million ha. are water-logged & another 25 million ha. threatened with salinization. [Wastes & pollution](#) Modern industrial civilization creates mountain of wastes. There has been a chemical revolution in the world. In 1930, organic chemicals produced in the world were only 1 million tons per year. In 1990, it became 400 million tons. Every 25 years chemical production is doubling. During the last 60 years or so 75000 new synthetic man-made chemicals have been introduced. The wastes from industries or after use are dumped in lakes, rivers or oceans. In 1992 estimates 2.3 billion gallons of municipal wastes & 4.9 billion gallons of industrial wastes are dumped in ocean coasts. More than 2.8 billion gallons of industrial wastes are discharged directly in ocean waters. There are over 200 industrial chemicals & pesticides are found in the body tissues of 95% of American tested. Plutonium²³⁹ is found in the teeth of British children. In 1980s Thai economy doubled but total quantity of poisonous pollutants released went up by 10 times. Between 1975 & 95 Indian economy grew by 2.5 times but pollutants increased 8 times. It is estimated that each year 706 million tons of oil pollutants enter our oceans. Between 1970-78 there were 46 major oil spills at the sea in which 8 million barrels of oils were spilled. In 1981 it was estimated that oil discharges at sea due to shipping amounted to 1.5 million tons a year, of which 27% was caused by accidents. Indian cities create 120000 tons of wastes daily. USA produced in 1994, 200 million tons of wastes annually. If loaded in trucks it will girdle the earth 8 times. US industries alone is dumping 20 billion pounds (about 10 million tons) toxic chemicals into air, water & land in 1987. In USA, up to 56 tons of trash per head per year are created. Enough garbage per year up to half distance of moon (150000 KM). Americans throw away 2.5 million plastic bottles per hour. By 1978, out of 20000 landfills in USA 15000 have already been filled up. US industries alone create 560 million tons of hazardous wastes per year- 2 tons per American. India generates 8.14 million tons of hazardous industrial wastes in a year of which electronic wastes are 400000tons. 13 billion plastic bottles are thrown out each year.

Ozone hole

Sun radiates ultra violet (UV) rays. It synthesizes vitamin D which helps in teeth & bone formation. Deficiency creates rickets. But excess UV ray causes melanoma skin cancer & cataract. It causes vitamin D toxicity with symptoms of kidney stones & abdominal & bone pains as calcium is

immobilized from the bone structure & excreted to kidney. Two- third of 300 crops used by man are vulnerable to UV radiation. Stratospheric ozone layer normally absorbs harmful UV rays & allows only a small part to reach earth's surface that is needed for bone formation. But chemicals like chlorofluorocarbon(CFC) & halon- based compounds used by man is thinning out the ozone layer, called ozone hole, that allows UV rays to reach the earth unhindered. CFC was used in refrigeration, air conditioning; spray cans, Styrofoam cups, trays & packaging as a plastic expander in foam furniture & car upholstery, in cleaning computer chips etc. In 1980s global emissions of CFC & halon- based chemicals were 1.2 million tons per year. By Oct, 1987, 95% of the South Polar ozone had disappeared. This hole exists between the months of September & October. A depletion of 1% in stratospheric ozone is estimated to create 3 to 15 million new cases of skin cancer & 555000 to 2.8 million cases of cataract for white people born before 2075. 5 to 10% depletion of ozone is worrying. Montreal Protocol of 1987 pledged reduction of CFC by 50% by 2000 AD. Alternative to CFC has been produced & are being used. Environmental Degradation Cost Two scientists appointed by World Bank had studied the environmental degradation cost (EDC) of India. In 1992, EDC of India was Rs. 340 billion per year. This amounted to 4.5% of GDP & equals twice the cumulative FDI inflows into the country since 1991. Air & water pollution accounted for a damage of Rs. 245 billion while land degradation & desertification inflicted a loss of another Rs. 94.5 billion. When this Report came Centre for Science & Environment of Delhi worked on it & found that the study did not take into account all damages. It found that if all damages are taken into account then the EDC of India will be Rs. 500 billion to 700 billion per year which is 7 to 9% of the then GDP. It shows that India's development process is unsustainable. A gradual de- development is taking place if we consider inter-generational equity. Why this social & environmental collapse? It is the gluttonous consumerism of the rich few of the world that is responsible for the collapse. To cite examples: In the middle of the Industrial Revolution in 1800, when an American used to go to the market he had a choice of only 300 items to buy in a market space of about 1500 sq. ft. But in 2000, when an American, living in a city having a population of 100000, goes to the market he has a choice of 1000000 items to buy in a market space of 1.5 million sq. mt. We see the glittering shopping malls that are being set up in the cities of India during the last 2 or 3 decades. Who goes there to buy? Not the poor people who live in Bharat. It is the 40 million rich & 210 million middle class of India that go there. In mid 80s, out of 1000 persons in USA 556 had cars, in India 2 persons & in China 0.7. In 2008, USA had 800, India 7 & China 13 in 2007. In 2002, red meat consumption in USA was 124.8 KG per person per year, in India 5.2 KG & in China 52.4 Kg. In mid-80s, paper consumption in USA was 47 KG per person per year, India 0.6 KG & China 1.2 Kg. In 2004, it became USA 312 KG, India 4.43 KG & China 33.62 KG. Hence we find that consumerism is gallopingly increasing. All the materials come from mother earth. This causes the collapse of environment.

Way out

The first socialist state in the world USSR brought a new hope to the world of an equitable society. But USSR wanted to beat America in per capita production. A huge industrial behemoth was created. But the seed of this approach was inherent in Marx & Engels. According to Marx society has advanced through contradiction between productive forces & production relation. When production relation becomes a fetter to further development of productive forces revolution comes in society & production relation is changed so that productive forces can advance further. In Communist Manifesto Marx & Engels write, "The proletariat will use its political supremacy to wrest, by degrees, all capital from the bourgeoisie, to centralize all instruments of production in the hands of the state, i. e. of the proletariat organized as the ruling class; and to increase the total of productive forces as rapidly as possible." In the appendix of Communist Manifesto Engels writes, "It is Obvious that hitherto the productive forces have not yet been so far developed that enough could be produced for all or to make private property a fetter, a barrier, to these productive forces. Now, however, when the large scale industry, has, firstly, created capital & productive forces on a scale hitherto unheard of and the means are available to increase these productive forces in a short time to an infinite extent." Increasing the productive forces to an infinite extent is a mirage. Because, if productive forces are increased to an infinite extent then natural resource base on which production depends will be completely devastated. That is what is happening now. But if a sustainable society has to be built equity & justice are the primary requisites.

Then what has to be done for India?

Tagore & Gandhiji understood what has to be done to change India. Both of them got disenchanted by the Western paradigm of development. In 1941, one year before his death, Tagore wrote this to poet Amiya Chakrabarty, then teaching in America, "Using Brahmin's brain, kshatriya's arms & shudra's services today's commercially minded Europe has become irresistible. But I can see their feet in a downward slope towards extinction." In 1941, in the year of his death he writes his famous essay 'Crisis in Civilization'. Tagore started Santiniketan, Sriniketan. When the elites of the then Calcutta were sending their sons to West to become barrister, doctor or engineer Tagore sent his son & son in law to America to study agriculture. He sends his teacher Santosh Kumar Majumder to America to learn dairy so they can take part to change the villages around Santiniketan. In 1904 in his famous essay 'Swadeshi Samaj' Tagore writes, "Our society cannot continue like this. Because, powerful outside force is engulfing our society every moment. It is united, it is strong..... it has made it visible by its total control of our schools to everyday market. If society has to defend itself from this it has to stand on its own feet..... We have to rejuvenate our country by bringing change in our village society that is connected in many ways. "Tagore wrote four essays on cooperative. In 1922 in the essay, 'Cooperative' he writes, "We have to reconstruct all our villages to satisfy all our needs. It is necessary to form a zone. If the heads of zones can organize all works and redress the deficiencies by themselves only then the cultivation of self- rule will become true all over the country. It is necessary to help & inspire the villagers to start their own school, cooperative & bank. By this way, if the villagers become self- reliant & united then only we will be saved. Our greatest problem is how to reconstruct our village society." Tagore was envisaging the panchayats & gram sabhas of today. Tagore also wrote & spoke about developing a counter culture to resurrect the society. Gandhiji wrote Hind Swaraj in 1907. In 1945, two years before Independence, he wrote a letter on 5

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Oct. To Jawharlal Nehru" The first thing I want to write about is the difference of outlook between us. If the difference is fundamental then I feel that the public should also be made aware of it.....I am convinced that if India is to attain true freedom and through India the world also, the sooner or later the fact must be realized that people have to live in villages, not in towns, in huts, not in palaces. Crores of people will never be able to live at peace with each other in towns & palaces. They will then have no recourse but to resort to violence & untruth.....while I admire modern science... should be reclothed & refashioned aright.....you must not imagine that I am envisaging our village life as it is today. The village of my dreams is still in my mind. My ideal village will contain intelligent human beings. They will not live in dirt & darkness as animals. Men & women will be free and able to hold their own against anyone in the world." Receiving this letter Nehruji replied thus on 9

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. Oct." It is 38 years that Hind Swaraj was written. The world has completely changed since then, possibly in a wrong direction.... You are right in saying that the world or a large part of it is bent on committing suicide. That may be an inevitable development of an evil seed in civilization that has

grown.” So congress leadership led by Nehru took to western model of development through massive industrialization. So, after 66 years of our freedom hungriest people of the world live in our Bharat. I do not agree with a part of left who thinks that it was all an imperialist design. Our leadership & scientists genuinely believed that as West & USSR had developed through industrialization we also can develop in the same way. We did not go for socialism in the soviet way. We kept capitalism & wanted to develop in the Western model. USSR trying to develop in the Western model collapsed after 70 years. We forgot how West had developed at the blood & sweat of the colonies which is still continuing with globalization. They became the ‘Core’ & we became the ‘Periphery’. Where is India’s periphery? So, we are attacking Singur, Nandigram, Kudankulam, Niyamgiri etc. & ousting more than 60 million people from their hearth & home in the alter of development that has made the rich richer & poor poorer. What was the understanding of Nehruji about development of India one year before his death in 1964. In 1963 Sept. in a lecture at a seminar on “Social welfare in a developing economy” Neheruji said,” My mind was trying to grapple with the problem of what to do with more than 550000 villages of India & the people who live there..... If we were to think purely in terms of output, all the big & important factories in India are not really so important as agriculture.....what Gandhiji did was fundamentally right. He was all the time looking at the villages of India, at the most backward people in India in every sense, and he devised something. It was not merely the spinning wheel; that was merely a symbol. He laid stress on village industries, which again to the modern mind does not seem very much worthwhile.” Again in Dec. same year in a debate on planning in parliament Neheruji says,” I begin to think more & more of Mahatma Gandhi’s approach. It is odd that I am mentioning his in this connection. I am entirely an admirer of modern machine, I want the best machinery & the best technique, but, taking things as they are in India, however rapidly we advance towards the machinethe fact remains that large numbers of our people are not touched by it & will not be able for a considerable time.” I do not know if Nehruji would have been alive if he would have tried to take a different course. Before we decide action to be taken to change India it is necessary to define what is ‘development’, ‘progress’. We admire Greek civilization, Indian philosophy from Vedas to Upanishad when we raised fundamental questions in philosophy, Gupta period in India, Bagdad Caliphate, renaissance in Europe, Indian renaissance from Rammohan to Rabindra Nath Tagore. They have shown exceptional creativity in science, arts, literature, architecture etc. They did not have Coca Cola, Pepsi Cola, cars, mobile or computer. But that did not deter their creative expressions. A society is more developed that fosters creativity of human mind where we differ from other species, a society that is peaceful, inclusive, connected with each other with love, affection & friendship. Nature of future society Future society will have the following characteristics: Equity & justice Inter - generational equity Simple living society shunning consumerism Primarily, a sustainable organic-based society Decentralization of economy & polity Planning from bottom up & not from top to bottom Gender equality Living in harmony with nature-not as master of nature but as a part of nature

But how the new society will come? The new society cannot come by wishful thinking. All the downtrodden & suffering people of India have to be organized to struggle for a change of society with a proper perspective as delineated above. Side by side constructive work has to go on in different fields like agriculture, land use management, water management, education, culture, a forestation etc. Those organizations which are involved in people’s politics should come together & create a massive movement to change the political system & usher in a new kind of revolution. Based on this article, an extempore talk was delivered by the author at the International Conference held at A.N.Sinha Institute in Patna on 26-27th. Feb. 2017.

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