

**Khirod C. Moharana**

## **CAN WE MITIGATE CLIMATE CHANGE WITH A NEW CULTURE OF CONSUMPTION?**

### ***Abstract***

*Earth's climate has been changing and this is an undisputed fact today. The uniqueness of the present climate change is its time span. In about a hundred years the climate has changed noticeably. Various disciplines have been researching on the causes and impact of climate change as well as the ways to adapt and mitigate it. Anthropology is in a unique position to understand climate change due to its holistic, historical and comparative approach. It has been revealed by recent studies that the present climate change is anthropogenic. Why is it so? Which human activities have triggered environmental change in such a massive scale? The present paper attempts to answer this question by bringing "consumption" to the forefront of analysis by linking it to the global forces of capitalism and consumerism. The paper examines the historical and contemporary economic factors which explain the surge of consumption in recent time. With an objective to understand whether we can change our consumption pattern the paper analyses some of the recent works on the nature of consumption as well as examines three non-consumeristic worldviews, namely the Ho worldview, the Jain philosophy and the Gandhian view. Using secondary sources and primary sources involving anthropological fieldwork, the paper proposes an alternate model of consumption based on inputs from the understanding of how constructed needs are consumed by the consumers today as a result of the interplay between the dominant economy, the state and the consumers.*

**Keywords:** *Consumption, Climate change, Culture, Mitigation.*

**Received:** 5<sup>th</sup> April 2018

**Revised:** 18<sup>th</sup> June 2019

**Accepted:** 25<sup>th</sup> June 2019

### **Climate Change and Consumption**

Earth's climate is changing. In fact it has always been changing. But what bothers us now is the speed with which it is changing. It has been estimated that earth's average surface air temperature has increased by about 0.8°C since 1900, with much of this increase taking place since the mid-1970s<sup>1</sup>.

---

**KHIROD C. MOHARANA**, Assistant Professor, Department of Anthropology, University of Allahabad, Allahabad

Other evidences like dramatic decrease in the extent of Arctic sea ice, decrease in spring snow cover in Northern hemisphere, and increase in sea-level rise testify that climate change is happening. What is more crucial than this evidence of climate change is the fact that this has happened only during the last one hundred years. What happened to this planet in this period of about hundred years? Is this change natural or manmade? According to the Intergovernmental Panel for Climate Change most of the evidences point towards an anthropogenic cause for increase in the global temperature in the last one hundred years.

Reports show that since the mid-1800s till 2012 the Carbon Dioxide (CO<sub>2</sub>) concentration in earth's atmosphere and in air trapped in ice has increased by about 40% (see the graph below). Carbon dioxide is the greenhouse gas which maintains the earth's surface air temperature. According to a joint report by Royal Society of London and US National Academy of Sciences, this increase in the concentration of Carbon dioxide is due to human activities<sup>2</sup>. This is evident from the measurement of different forms of carbon (isotopes) on earth's surface. Evidences like this attempt to show that the recent change in the global climate is a result of increase in the carbon dioxide concentration in the earth atmosphere. This, in turn, is caused by increasing industrial activities based on burning of fossil fuel<sup>3</sup>. The question, now, may be asked, why do we burn fossil fuel in such massive scale? Is it linked to human consumption pattern? Is there any change in the way we consume in the last hundred years? Does any relation exist between our consumption practices and the carbon dioxide concentration in earth's atmosphere? Or, in other words, can we link the present problem of climate change with our culture of consumption?

Given the above scientific studies claiming a strong link between consumption and climate change can we think of reducing the global consumption level and pattern? Can consumption be reduced or moderated at both individual and industry level? This can be answered if we understand the nature of consumption in its full details. The dominant understanding about consumption has been based on an economic rational model which defines consumption as a purely economic phenomenon where money or wealth dictates what and how much a person consumes. Consumption and its increase have been considered as essential for a sound economic system. The modern industrial economy is, thus, responsible for increasing global consumption in degree and varieties. However the world today is facing some of the toughest challenges related to climate and environment as a result of which there have been rethinking on the capitalistic assumptions about consumption.

Consumption is a very sensitive matter to discuss as it is linked to human freedom and choice. It invokes political debate and rarely leads to an agreement about its limitation and desirability. Sociologists, anthropologists and other social scientists have provided various perspectives to the study of consumption which gives ample scope to rethink the dominant model of

consumption and thereby putting forward a possible alternative which can help face the global challenge of climate change.



**Graph: 1.** Based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, the graph provides evidence that atmospheric CO<sub>2</sub> has increased since the Industrial Revolution. (Credit: Vostok ice core data/J.R. Petit et al.; NOAA Mauna Loa CO<sub>2</sub> record.)

### Objective

The objective of this research paper is to understand the role of consumption in climate change and to answer why consumption is increasing. The paper further examines the intricacies inherent in consumption and attempts to propose an alternative model of consumption to mitigate climate change.

### Methodology

The study used both secondary and primary sources to analyse the nature of consumption and its relationship with climate change. Simple observations of various products sold in the market and advertised in television are critically discussed in the context of claims they make with the help of secondary sources. In proposing an alternative model of consumption some secondary sources were used to examine the Gandhian and Jain mode of consumption. The Ho way of consumption was examined on the basis of primary data from an anthropological fieldwork conducted in three *adivasi* villages in Jajpur district of Odisha.

**Why Consumption is increasing: Consumerism and Constructed needs**

Consumption is not new. We have been consuming natural resources for our survival since the time we first appeared on this planet. Archaeological evidences show that consumption of material items is not a new feature in human culture. But what differentiates the contemporary consumption pattern is the amount and varieties of material items that humanity has started using. In fact the scale of consumption is what distinguishes modernity from earlier cultures. Rousseau (1950) argued that people in earlier times got their satisfaction from sociability, and had few needs which were easily satisfied. But in modernity there were plenty of needs and each day the number is increasing.

Pre-modern people can be argued to have a different pattern of material consumption due to their distinct economy which was socially embedded. Anthropologists have argued that people in pre-modern societies had organized their economic lives based on circulation of goods through gift-giving and reciprocity. There was no market economy before modern capitalism (Polanyi 1957) and the socially embedded ways of goods circulation restrained individual desire to accumulate. Pre-modern people consumed material items without being “consumers” in the sense the word is used today. This is due to the fact that the goods used in earlier societies had religious, magical and ritual meanings and rarely had “utility”.

Consumption of material items always has been socially determined. Only the elites of the society used most of the manufactured items in the past. There are scholars who recognized global trade of precious stones, spices, jewelry and other exotic material items among distant societies even in pre-modern times (Wolf 1982). But neither the consumption nor the production of these material items was mass-based. The powerful and wealthy sections of the society in pre-modern era consumed these exotic material items. Probably the idea that social status can be enhanced with consumption and display of more material items was there in the pre-modern societies too. But the nature of pre-modern economy never allowed mass production and consumption. The pattern of consumption has witnessed drastic changes through various periods of cultural development. Rather than being static and determined by biological needs, consumption expanded, changed and multiplied for thousands of years. It is the emergence of capitalism when people started to invent entire categories of material culture, and eventually settled down in permanent homes where they could accumulate possessions and pass them along to their descendants (Wilk 2004).

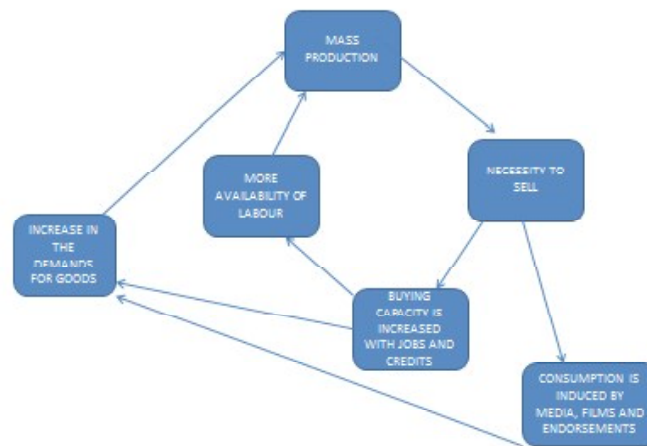
Capitalism emphasizes private ownership, competition, profit and marketing. This has changed the meaning and relevance of consumption in society. The two events in the recent world history which have contributed substantially in shaping human consumption are Industrial revolution and

Fordism. It is industrial revolution which paved a new way of producing and consuming material items which is different from traditional consumption. Industrial revolution created the possibility for manufacturing goods with the help of machines and hence more goods were produced in comparatively less time. The process of producing material items witnessed another crucial development when goods were started to be produced in assembly lines popularly known as Fordism. Fordism enabled producing manufactured items in plenty which was an economic wonder at that time. It eventually led to a need for inducing more consumption so that the produced goods can be sold. This is termed as consumerism where more consumption is desired and designed by various sectors of economy. It is supposed that consumerism is required for the economy to run efficiently. Thus the era of mass production and mass consumption of material items began in the human history.

To understand “how consumerism works” we need to examine certain events in the recent world history. The transition from human consumption to consumerism in the last hundred years has been accompanied with a continuous effort to redefine human needs. In this section an attempt is made to argue that the rising consumerism is based on constructed notions of human needs, comfort, necessities, hygiene, health etc. Rising consumerism witnessed a rising need to create new notions of realities before the consumers. The consumers needed to be (re)educated about their needs. The responsibility to re-educate the consumers was vested on the manufactures of innumerable products. The imparting of this education was possible through images of new lifestyles and trends created with the help of media, television, films, digital gadgets, celebrity endorsement etc. Commercial and economic interest continued to dominate in the entire process.

We consume various resources to sustain on this planet. We satisfy basic and other types of needs by consuming goods and services. This is how we explain consumption in a fundamental way. But today the scenario has changed. Human beings no longer restrict themselves to satisfying their actual needs and today constructed needs outnumber the real needs. This is how we have transitioned from consumption to consumerism. Let us examine how consumerism works by looking into the recent history of world economy. The modern consumption can be traced back to the origin of capitalism with its epistemological premises such as individualism and utilitarianism. Earlier it is discussed that industrial revolution and Fordism accelerated mass production. These two processes made it possible to produce goods in plenty. Now there was a need felt among the manufacturers to induce people to buy their products. This could be possible by two ways: by increasing the buying capacity of the people and / or by convincing the people that these goods are genuinely needed. The first way was possible by providing people with jobs and / or making available easy credits for common people. The second way was to create images of good life based on new goods, services, comforts, necessities and life styles.

It was possible with the help of advertisement, films, television, celebrity endorsement, etc. This is how a stable base of consumers is ensured. When people get jobs in manufacturing sector it adds to the work force eventually contributing to more production. Similarly images of good life induce people to consume more which ultimately ends up with an increased demand for goods. Consumption leads to demand for production which in turn creates more jobs for people. More jobs mean increase in the buying capacity of people which ultimately leads to more consumption. These in turn contributes to more production in a cyclic way. The entire process of ensuring a stable base of consumers is illustrated with the help of a schematic diagram below.



**Diagram-1: Cycle of Consumerism**

Today many goods and services have left the “luxury” tag and have become “necessities” to be used by the common masses. Though the use of items like refrigerator, air conditioners, and cars are principally rhetorical and social (Appaduarai 1988), today it has become “necessities”. Conducive laws abolishing restrictions of use of certain objects by the elite, development of transport and communications making exotic commodities available, and use of small and easy credit make it possible for common mass to buy the once “luxurious” items used only by the elite.

Earlier advertisements generated awareness about certain products and make companies known to the people. The methods used for this purpose were basically newspaper article and radio. But now the situation has changed drastically. Today companies use magazine ads, television commercials, fully dedicated marketing channels, movies ads, billboards, newspapers, social media and radio etc. to advertise. The aim is not only to create awareness about certain products but also to “lure” people into a specific way of thinking and

identifying. For example, a couple of years back the Ferrero Company introduced a separate candy called *kinder joy for girls*. The company used to manufacture gender neutral kinder joy that contained toys that any child could play with. But now the company finds it more appropriate to manufacture toys “suitable” for girls and boys as two distinct products. This way the company wanted to create new classes of consumers by exploiting gender divide. The type of toys for girls manufactured by the company includes among others, dolls resembling Barbie, accessories and ornaments featuring Barbie and other similar female characters. It exemplifies how new needs and wants are created by consumerism.

The other examples which are worth examining here belong to the pharmaceutical and personal care products (PPCP). Pharmaceutical products are required for treating diseases and other lifesaving purposes. The industry has witnessed a steady growth since its inception. It is among the fastest growing industries worldwide. Growth of Indian pharmaceutical industry has also a similar story (shown in the graph below). The personal care industry manufactures consumer products used in personal hygiene and beautification. These include products like deodorants, soaps, moisturizers, lipsticks, shampoos, hair colours, and toothpastes etc. which are believed to enhance the quality of daily life. Similar to pharmaceuticals, the personal care industry has also witnessed tremendous growth both in India and the world. The PPCPs have seen tremendous growth since the last two decades. Now we have thousands of new products and choices in this sector. PPCPs also include products used by agribusiness to enhance growth and health of livestock.



**Graph 2: Growth of Indian Pharmaceutical sector**

The boom in this category of product is linked to crucial factors such as medicalization of society (Riska 2003: Illich 1982), market economy and consumerism. Medicalisation occurs when previously non-medical problems and issues are defined and treated as medical problems, usually in terms of illnesses and disorders (Conrad and Leiter 2004). Medicalisation emerged due to the dominance and influence of bio-medical profession, increased reliance on experts, and an abiding faith in science, rationality and progress (Conrad 1992). Influence of market economy on medicalization was never direct till the time elements of consumerism started to penetrate into the health care system. Over the last three decades there is a spectacular growth of “medical market” (Light 2000). Medical market emerged when medical products, services or treatments were started to be promoted to consumers for improving their health, appearance, or well-being. Use of advertising has tremendously influenced the development of medical market (Dyer 1997). Now-a-days medical services are increasingly organized into product lines (Imershein and Estes 1996) which along with medical market and use of advertising contribute to commodification of medical goods and services. Corporate interests, use of advertising, insurance companies and medicalisation are interrelated factors which work intricately with each other to create new notions of health, hygiene and personal care. Thus, apart from valid scientific discoveries the interests of pharmaceutical companies often motivate increasing consumption of PPCPs.

The other significant group of products which need urgent mention here is food. Food is our most basic need. There was a time when we had very limited choices of food items. They were mostly homemade and traditionally learned. Apart from the traditional food stuff that we eat according to our cultural background there has been substantial addition to the food list today motivated by global consumerism. There are now plenty of choices in snacks, beverages, packed meals, chocolates, ice creams, health drinks, etc. Images and ideas about foods have been reconstructed by the culture of consumerism today. Increasing varieties of new foods with attractive packages are added to our plate day by day. Do we need all these foods in a true sense? Are these food items nutritionally better? Various studies have argued that one of vital reasons for people becoming obese in today’s world is a new culture of eating. No study has proved that fast food, processed food, more meats etc are positively correlated with human longevity. Rather a study of several of the longest-lived peoples in the world found that they ate just 1,800–1,900 calories a day, no processed foods, and minimal amounts of animal products (Bates and Hemenway 2010).

Why these mind boggling choices exist today? Food practices are basically culture-dependent. Myriad practices on eating are found across the cultures of the world. Dietary norms are shaped very early in life chiefly determined by the availability of food in various environment types. The choices were traditionally determined by cultural and environmental limitations. But



what triggered the overwhelming varieties and numbers of food items to capture our platter today? In our own lifetime we have seen an exponential increase in the choices of food items that we consume. Why is this so? Two factors often come to mind which can explain this change in our food practices: market economy and changing notions of food. Today in the globalized scenario there is hardly any constraint in the availability of food for shaping our dietary norm and eating habits. A consumer in India can now eat Italian pizza, American Barbeque, Japanese noodles or many more international dishes. The second factor is the changing meaning or notions of food. New notions of health and lifestyles encouraged by media and films have added new items to our platter. This often leads us to compromise with the health, nutritional aspect and sustainability of our dietary practices.

To be healthy we do not need more than 2000 calorie of energy per day. The consumption of innumerable types of food, fast food, drinks etc. are no way helpful in creating health for people. Rather there are studies which have proved the adverse effect of these food items on health. So it can be argued that the romanticisation of these food items in media and films is merely a reflection of an ulterior economic motive. Images of these food items are thus basically the construction of wants or needs which we may not actually require.

The dominant economic model also creates “needs” at collective or social level. Various significant players in the world economy explore new “needs” in order to produce more products and services. Let’s consider the case of extraction industries which flourished in the last three-four decades in developing countries. If we see the structure of the corporate world we can see a strong link between created needs and an ultimate objective to make more profit. Analyzing the flourishing metal extraction industries in India Felix Padel has examined the links among mining companies, financial institutions and state’s interests. The above nexus or links induce the state to support metal industries and rationalizing it by linking the extraction industries with weapon industries which is considered as the state’s most crucial “need”. Though metal or extraction industries do not imply consumption at individual level but the need is created at collective or state level to rationalize huge consumption of metal. Das and Padel have examined how huge amount of metal, especially aluminum is extracted for arms manufacturing industries. Given the large amount of greenhouse gases emitted by extraction industries the constructed nature of the need of aluminum for humanity requires serious study (Padel and Das 2008).

Thus, “needs” and “necessities” are increasing day-by-day. These burgeoning needs are a result of a particular type of economy which is dominant today. There is no essential relation between these “needs” and human existence. Today most part of human consumption is linked to the satisfaction of human needs or choices manufactured by consumerism. Consumerism has

created a specific type of reality which may not be essentially related to human life and existence. Given the threat of climate change that the world is facing today this created reality can be and need to be deconstructed.

### **Can We Decrease Consumption?**

The consequences of climate change can be avoided if we decrease human consumption to a sustainable limit. However, it requires in-depth understanding of the nature of consumption to be able to think of the possible ways of minimizing it. Consumption is understood traditionally in a simple sense as the act of destroying, using up, wasting or exhausting resources for our survival, comfort and luxury (William 1976). However the terms “consumption” and “consumer” have gained new meanings and popularity with the world accepting new modes of production and economic system, especially capitalism in the eighteenth century. Consumption became “a process whereby agents engage in appropriation and appreciation, whether for utilitarian, expressive or contemplative purposes, of goods, services, performances, information or ambience, whether purchased or not, over which the agent has some discretion (Warde 2005). Scholars have since examined issues like why we consume, what we consume and other crucial dimensions of consumption. The transition of consumption as merely an act of using up or destroying resources for satisfaction of biological or natural needs to a phenomenon of communication system or social distinctions reflects a gradual journey of scholarly deliberation. The following section deals with the major theoretical trends in consumption research with an aim to contribute to an alternative consumption model in the present context of climate change.

Consumption has primarily been regarded as an individual and rational act by classical economists. According to this view consumption is based on desire for objects which in turn is an individual psychological urge. By this, economists consider consumer as the king or the central controller of all economic activities thereby limiting the role of society or macro factors in shaping individual wants or desires. Economists generally consider consumption to be the beginning and the end of economic activity and thus the per capita consumption is taken as a measure of a successful economy. Consumers not only give the initial thrust to the production activity with their desires or wants but with these they keep on moving the entire economic system. All economic activities today are assumed to stand on the existence of these wants and their expansion is the secret of a flourishing economy. Today the model works successfully in converting human desires into reality the world over.

All is well with this model except an inability to distinguish between human need and desire. The model does not see the unlimited nature of human desire and fails to decide on how far to run behind fulfilling human desires. Moreover, most economists believe that consumers are fully informed rational

optimizers, which means people consume goods and services according to their own decision and volition. Individual is assumed to be fully informed and rational in calculating economic profit and loss associated with all consumptions. This is where most sociologists and anthropologists take an opposite stand. They argue that consumers are neither fully informed nor rational while consuming goods and services, and the “needs” consumed by the consumers today are not real. It's not the choice or freedom that the consumers exercise today but in contrast they are trapped in choosing to satisfy “needs” which are constructed.

Scholarly works in sociology and anthropology on consumption examines it from a wide spectrum. In his book “For a Critique of the Political economy of the sign” (1981), Baudrillard examines the sign value of objects which are considered different depending upon the difference in meanings they possess. This explains why people consume or do not consume certain objects. Objects assume new meanings as a result of various factors and become commodity for consumers. Thus consumption in a consumer society is basically the consumption of meanings rather than specific goods and services (Baudrillard, 1970). This symbolic aspect of consumption has been critically examined by Bourdieu who argues that consumption of meanings is at the root of maintaining distinctions between the rich and the poor, the elites and the common men, the bourgeois and the proletariat (Bourdieu, 1984). Consumption is considered a medium through which the social hierarchy and distinctions are maintained. Bourdieu looks at consumption critically to show distinctions resting on more complex factors such as capitals and habituses. Consumption preferences across sections of society are maintained though the objects themselves get replaced by newer varieties and versions thereby helping in social reproduction. The newer versions or varieties of objects replace the older objects and carry the similar hierarchy of meanings as was used by the older objects. Thus the hierarchy of meanings is maintained and what we consume is basically the meanings associated with the objects. Baudrillard emphasises this symbolic aspects of human consumptions and hint at the possibility of macro factors in creating and maintaining a sign-based consumption of material objects with the help of advertisements and other associated activities.

Appadurai too tries to explain the transitory nature of values of a material object, and questions the assumption that consumer is the centre of all economic activities because it is he or she who desires for objects. In his book “The Social Life of Things” Appadurai argues that value is embodied in commodities that are exchanged. Discussing the anatomy of economic values he argues that it is basically the exchange of sacrifices and gains that create economic values. Value of an object is neither its inherent quality nor driven by the demand for it. On the other hand, “demand, as the basis of a real or imagined exchange, endows the object with value” (Appadurai 1988). Thus, we consume commodities not due to their inherent economic value but as a way to respond to the created situation where we feel difficult to acquire certain

objects. It is very crucial to examine the role of factors such as difficulty of acquisition of objects and sacrifices involved in exchange of objects in understanding the consumer culture of today. Simmels name them as the constitutive elements of values (Simmels 1978).

Delving into the fundamental question of why we consume, Appadurai links it to “demand” which, he says, is associated with variety of “social practices and classifications” (Appadurai 1988). In line with Baudrillard, Appadurai too sees demand as a part of a larger socio-economic and political process rather than a derivative of individual desire or need. Demand and hence consumption, he argues, is an “aspect of the overall political economy of societies”. Demand is determined by social and economic processes which, in turn, are manipulated, within limits, by demand.

From the above analysis it can be argued that consumption is fundamentally linked to factors extraneous to individual wants and desires. Macro factors influence individual needs and desires and thereby determine the array and scale of consumption. Thus, it can be argued that limiting consumption is possible at macro level though, at the same time, we should not also ignore the role of individual. Given the global concern about causes and effect of climate change, the most basic question is how to limit and how much to limit our consumption. Demand, and thus consumption is a “socially regulated and generated impulse, not an artifact of individual whims or needs” (Appadurai 1988). The engines of consumer demand include the media, the impulse to imitate a western and materially-rich lifestyle propagated by the media, and sometimes political appeals too. Today the question of how much a person or country should consume involves many cross-cutting dimensions of modern human life. ‘How much to consume’ is not a very straight forward question and is involved with many checks and balances at national and international level cross-cutting interests of various stake holders. As consumption involves individual freedom, liberty and economic stability, the present world chooses to be silent on the question of consumption. People of Asia and other emerging economies do not want to be advised on how much to consume by developed countries in Europe and USA due to an unsuccessful global diplomacy on balancing consumption at an international level.

Now, given such complexities inherent in consumption, can we think of decreasing it? As hinted earlier consumption has been an unasked question for both ideological and political reasons (Gailbraith 1958). Gadgil argues that asking people to curtail consumption is useless because people, by and large, pursue self-interest and are unlikely to be motivated to use a resource base in a prudent and sustainable fashion (Gadgil 1985). Using his Prudent-Profligacy model Gadgil argues that unsustainable and profligate use of natural resources will happen (i) if the resource catchment area of a population is vast and there is little affect of resource degradation (ii) if there is a possibility of substitution of the depleted resources (iii) and if the control over the resource is tenuous,

so that there is a fear and possibility of others using the same resources if the population restrain itself to use it (Gadgil 1995). This model can be extended on a global scale to explain the failure in the international diplomacy to limit carbon footprint by various countries. Today people of various countries perceive that though the resources on our planet are limited, there is always a possibility that others will use up the resources even if some chose to consume sustainably. People of China and India fit into the third of the categories discussed above where there is little preparedness for signing international agreement on decreasing carbon footprint. A solution to this grave problem is to make the developed nations pay more for their extraction of resources from the third world as well as creating preparedness among the people of the world to understand that the resources are limited and we all have to suffer the brunt of this profligate use of resources.

Gadgil's analysis is at global scale to segregate world consumers into biosphere people, ecosystem people and ecological refugees<sup>1</sup>. His strategy warrants global action plan to empower the ecosystem people to give more control over the resources of their catchment area. Gadgil further argues that to make a sustainable world possible biosphere people will have to strike roots all over the world and take good care each of their own bioregions (Gadgil 1985). So the onus of the consumption dilemma has been put by Gadgil on the biosphere people who have more responsibility today to mitigate climate change globally.

However there is an urgent need to create proper understanding about all these climate intricacies among the ecosystem people too, especially the emerging economies of the worlds to behave responsibly. The understanding should be dawned among the third world that the American way of life marked by over-consumption of world resources is a gateway to extinction of our species from this planet.

There has to be an end to the imitation of American way of life by rest of the world especially India and China due to their sheer number. Imagine China and India having more than 800 cars per 1000 inhabitants! What would be the fate of our planet by that time? Guha sees a solution to the global threat of climate change in state interventions such as imposing taxes and subsidies differentially in different parts of the world as a strategy to curb consumption (Guha 2006). He very pertinently analyses the differential volumes of consumption at national and international level and argues that it is very likely that the people of the world wake up to the contemporary environmental conflicts and will have no other way except being forced to limit their consumption. By the middle decades of 21<sup>st</sup> century the global replicability of western style of living and hence consumption will be more directly and persistently challenged (Guha 2006).

The above analysis allows us to see some possibilities to think of decreasing consumption. Even today we witness that the ecosystem people

live on this planet successfully and the quality of their lives are not necessarily inferior to that of the biosphere people. Consuming less or minimum of natural resources is not antithetical to a successful life on earth. Rather, it is the key to better survival and flourishing of our species. We can learn the science and art of decreasing consumption if we examine some of the worldviews that already profess and practice a sustainable consumption though eclipsed now by the dominant capitalistic and consumerist culture. The next section dwells on these worldviews to propose an alternative model of consumption.

### **Consuming towards Sustainability**

The present rate and pattern of consumption, if not checked, will make the world uninhabitable in near future. Apart from the technological interventions to mitigate climate change what we urgently require is change in our consumption of world natural resources. We have, even today, many non-consumerist cultures exist, though sidelined, in many parts of the world. An alternate model of consumption can be created based on learning from these cultures or worldviews. Three views namely the Ho worldview, the Jain philosophy and the Gandhian view have been discussed in this section.

#### ***Consumption in Ho society***

The Ho is an *adivasi* community who lives in Jharkhand, Odisha, West Bengal and Assam. Majority of Ho population in Odisha live in villages surrounded by hills and forest. They are subsistence agriculturists though seasonal migration is seen in many Ho villages to work as agricultural labour as a secondary economic pursuit.

A typical Ho household has minimal possessions mostly limited to some pieces of utensils, minimum number of clothes, some livestock, and sometimes a bicycle. Possessing material items is not compatible with the Ho philosophy of life. The two essential items a Ho possesses is a *handi*, that is a utensil to cook rice, and the body, the physical aspect of one's being. In other words a Ho typically possesses and is satisfied with only a piece of utensil.

The attachment to land and forest for the Ho is very strong and deep. For them ancestral land holds meaning beyond ownership. The particular land a tribal family inhabits is linked to their identity, culture and history. Land and forest are to be used whenever necessary but there is a strong sense of need based consumption. If someone needs to build a new house or repair the existing one the person can approach the village headman or the person who watch the forest nearby. If the villagers are satisfied about his need then he can be allowed to cut trees from jungle. This social assessment of individual need prevents any private sense of wealth and accumulation.

In Ho society if you are having more money and you are not sharing this with the villagers then it is regarded as against the morality of the society and a source of internal conflict. There is no harm in being rich but the wealth

has to be distributed among the villagers and beyond. There are many culturally acceptable ways of wealth distribution for example marriage prestations and practice of gift in social and festive occasions. This is highly valued in Ho society. Individual accumulation of wealth is severely rejected and is often expressed as psycho-somatic illness. The visit of Tunia bongga<sup>2</sup> is an example of this mental illness (Moharana 2014).

It is observed that spatial mobility or movement plays very important role in the social and economic life of the Hos. Often it is seen that the whole family goes to the agricultural field and the house is left without anyone to watch. After the completion of an agricultural cycle many tribes migrate/move to other villages and sometimes town for working as agricultural labours. At the time of festive seasons the tribes move to the common place of religious importance in group and rarely one can find people in villages. This kind of life style, marked by many occasions of group movement, is antithetical to possession of wealth. Wealth can be considered as a “burden” for the Ho community and Sahlins description of “goods” as “grievously oppressive” can rightly be applied here. (Sahlins 1984).

Consumption has a very eco-friendly aspect in Ho community. Individual accumulation is averse and rather social prestige is earned if you donate more. In the multi-clan Ho villages there exists economic and ritual competition between the different *kilis* or clans. Competition for prestige can be observed in marriage exchanges that are much important among the Hos involving heavy circulation of wealth, cattle, goat and cock (Figure 1).



**Figure 1: Practice of Gift during marriage in Ho community**

The Ho cultivator is endowed with an economic rationality, but not with the profit-maximizing mentality of the commercial farmer. The Hos place little value on surplus accumulation since they stress prompt consumption and immediate enjoyment. The Ho society can be described as marked by a unique relation between the subsistence mentality of individual peasant households and a social structure which refuses to grant any primacy to economic (as opposed to cultural or religious) calculations. In non-tribal society the existence of both subsistence and commercially minded peasant households is allowed within the framework of a broadly hierarchical social and economic division of labour. In Ho society the pursuit of wealth is conducted within the confines of a harsh physical environment and within the social constraints imposed by an enduring egalitarianism and a refusal to specialize. Agricultural and non-agricultural labour in Ho society is exchanged on a reciprocal basis within the *killis*. It is not usually bought or sold through open market.

The Ho community has been living in communion with nature and there is absolutely no cultural ways of distancing from the nature. The body, a Ho villager says, is “built to bear summer, winter and rain, and why to fear the nature?” The Hos believe that “nature is your mother and you don’t extract more than what you need. Then only a mother can bring-up her child”. This simple understanding and belief have shaped consumption practice in Ho society. There is probably no need to enquire about the “scientificity” of this cultural value but standing today on the brink of climate change it is hard to ignore this “simple message”.

### ***Consumption in Jain Philosophy***

Jainism is one of the oldest living religions. It was originated in India more than twenty five hundred years ago. We find two sects of Jainism, the *Swetambars* and the *Digambars*. The *Swetambars*, who primarily live in Western India, are the white clad Jains. They believe that monks and nuns can achieve *kevala* (highest spiritual development) if they practice non-violence and renunciation. True renunciation is possible even with minimal clothing. The *Digambars*, primarily found in central and south India, accept that everything should be renounced including the clothing to reach *kevala*.

The whole idea of consumption in Jain philosophy revolves around its basic principle of non-violence and renunciation. Jainism accepts that to reach the highest level of spiritual development (*kevala*) one needs to purify his/her *karma* and this is possible primarily through active non-harming of living forms (Bhattacharya 1976). This means the Jains are required to be vegetarian as well as to lead lifestyle which has minimum chance to do any harm to any living forms including plants. Ahimsa or non-injury to living beings is one of the fundamental virtues among the Jains. To kill a living being is the greatest of sins. So we see reverence for all life forms among the Jain believers.



The above lifestyle requirement of the Jains necessitates a mode of consumption which is based on minimum use of natural resources. The concept of *Parasporopagraho Jivanam* in Jain philosophy requires its adherents to be moderate in consumption so that one can live a life of contentment and discipline (Sanghavi 2001). Accumulation of possessions for individual use/enjoyment is highly abhorred. There are requirements in Jain traditions to practice abstinence and austerity. Life should be based on moderate and restraint consumption of material items. In the use of earth's resources Jains need to be reasonable and very moderate in their consumption. The adherents of Jainism need to reduce their needs and desires. Using any resources beyond one's needs and misuse of any part of nature is considered a form of theft.

The Jains 'emphasis on the interrelatedness of all forms of *jiva* restricts consumption to the minimum. The Jain view of consumption sees the earth as a place where all life forms (*jiva*) are in constant communion with each other as well with the *ajiva* the lifeless components of the earth. As a result the Jain concept of consumption is not exploitation but co-existence with both living and non-living components of earth. It can be argued that the climate change mitigation strategies need to be based on these pro-ecological ideas. The gravity of environmental degradation is unfolding before us as we continue to experience the effect of climate change day by day. Mitigation plan can include the environmental understanding prescribed in Jain philosophy for a sustainable future.

### ***Consumption in Gandhian View***

The Gandhian view on consumption is motivated by Mahatma Gandhi's principle of truth and non-violence (*ahimsa*). He was particularly concerned with a mode of life for satisfying the "needs" not the "greed" of human beings. If everyone only meets his/her needs then the earth has ample resources to offer. But satisfying one's greed involves violence as it implicates capturing the legitimate resource of others. The principle of non-violence has shaped the idea of Gandhian consumption which is based on using natural resources without greed and violence. He practiced vegetarianism and believed that any form of violence will create cumulative effect throughout the world ultimately wiping out peace from the world.

Gandhi favoured consuming natural resources only to meet our basic needs such as food, clothes, shelter and other essential items for a simple living. He insisted on refraining from consumerism as it cannot ensure real happiness to man. Gandhi had visualized the hollowness of consumerist culture long before (Dayal 2006). According to him consumerism conditions the mind towards egotism and attachment, which the Gita has termed as the root of all evils. His idea about consumption is very clearly expressed in his own life. He discarded English dresses and wore only homespun clothes, mainly a loincloth. With this practice Gandhi showed his radical rejection of European industrial

production and consumerism. This also proved to be a very crucial tool for combining both political and moral achievement.

In his experiments with truth Gandhi attempted to strive for moral truth through disciplines of mind and body such as fasting, celibacy and frugality. All this implied a view of consumption which is moderate and need-oriented (Gandhi 1927). He argued that if we take something that we do not need for our immediate use, we are like thieves (Gandhi 1936). Giving his view on demand he argued that it is not “desire” but “need” that should define “demand”. So, a strong criticism of consumerism can be found in his political action and in his personal journey of self-realization. Beneath his attempt to discipline his body and mind was his strong rejection of consumerism too.

Gandhi used a pencil for note taking and he used it for a long period of time. He had profound respect for natural resources and even a pencil of two inches was precious for him. His grandson, Arun Gandhi, once decided that he deserved a new pencil and flung his old pencil to road side bush. Later Arun requested his grandfather to buy a new pencil for him. Mahatma Gandhi put him to a long cross examination and finally Arun had to search for the old pencil with the help of a flashlight. When Arun was successful in finding out the pencil Mahatma Gandhi explained why he made him to search for the small pencil. Mahatma Gandhi explained that throwing away a pencil is nothing but abuse of natural resources. It is tantamount to violence against nature and over-consumption of natural resources. When there is a large section of world population who are deprived how can we throw away natural resources? It is violence against humanity (Gandhi A 1994). Mahatma Gandhi preferred recycling of manufactured products and emphasized careful use of goods for a long period. It has also been observed that consumerism has led to a complete wipe out of products based on recycling. The rationality used is a sense of convenience and comfort. For example most pens in India before 1980s were fountain pen which used ink repeatedly without throwing away the pen itself once the ink is over. It might not be a good business model but it was very much eco-friendly. Now as an effect of consumerism these pens were replaced by once-use pens which needed to be replaced completely after use. This induced more production and thereby a pressure on environment. By redefining what we mean by convenience or comfort we are heading towards creating an unsustainable earth for us. Gandhi’s concept of non-violence can be used as a deterrent in the path of over-exploitation of natural resources. Non-violence is a wonderful motivator in changing public attitude and it can act as a brilliant aid in climate change mitigation.

### **The Alternative Model**

The alternative model thus should be based on the highly climate-centered inputs from the three worldviews discussed above. The three major stake holders of consumption: the state, the business organizations and the consumers need to act in a serious manner for an alternative model of

consumption to take off. The alternative model will essentially include changes in each segment which can be sustainable only in an inter-dependent way. The suggestions can work better if all three sectors work in a coordinated way.

The business organizations should base their product and service design keeping in view of the limitedness of world natural resources. Proper study and analysis of environmental impact of substances used as raw-materials needs to be mandatorily conducted and should not be undermined by commercial interest. The understanding should dawn that climate change will eventually affect every one of us including both the manufacturer and the consumer. Commercial interest should be checked in proper spirit. Priority should be given to product designing based on recycling. As was discussed earlier once-use items need to be minimally manufactured where it is essential for example in health and clinical sector. Throwaway culture must be highly discouraged by manufacturing innovative products involving re-using and re-cycling mechanism as well as extending lives of products. Right understanding and interpretation of scientific research is highly required before designing and commercially manufacturing products and proper assessment of environmental impact in manufacturing each product needs to be mandatorily conducted. Committees need to be established to scrutinize the validity of the claims of manufactures regarding authenticity of research-backing and the usefulness of their products. Usually commercial interests overpower scientificity of such claims. We should not tell people to buy less or consume less or change to sustainable way but allow them to see the urgency of the issue and provide them with proper alternatives. Climate-conducive behavior needs to be valued and incorporated in our culture with proper political support. Climate-friendly products need to be manufactured and should be made available as compelling alternatives.

Today advertisements are aired spreading many wrong conceptions about health and other benefits of concerned products. Advertisements mostly are based on invalid and flawed argument creating wrong and erroneous culture of consumption because they are often motivated by commercial interests. Proper mechanisms of checks should be placed before they are allowed to be aired.

The State should impose proper tax and subsidies to favour products based on recycling. A culture of re-selling of second-hand goods by attaching new and higher meanings to the practice should be encouraged with political support. The State needs to subsidise industries which convert used products into re-usable products with innovative ideas. Using second hand goods should be attached with images of higher and matured citizenship. Collaborative consumption is another culture which needs to be encouraged socially and politically. Climate-conscious behavior should be given priority by the State over other social, political and cultural obligations.

At the individual/consumer level there has to be a shift from non-essential based consumption to a need-based consumption. Mere change in the screen size or camera efficiency should not motivate a consumer to go for a new mobile phone or a laptop. New innovations in technology should be able to be incorporated without necessarily discarding the gadget altogether. There should be an emphasis on up-gradation of technology without frequent change in the hardware. The consumer should neither be lured nor self-motivated to upgrade frequently to newer versions if there is no substantial change in the productivity. The man-nature relationship needs to be re-incorporated to the modern understanding of human life and survival. Man cannot be separated from nature and the struggle to dissociate from nature will only complicate our relations with nature eventually leading us towards catastrophe. Use of air conditions and other amenities for comfort needs to be remodeled on the fact that neither our health nor our society will be benefitted by this trend of being dissociated with nature. Certain amount of heat and cold we can and are built to tolerate. Our insanity to lead a life as comfort as possible will destroy our physical immunity and the climate too.

### **Conclusion**

Contemporary society is experiencing a surge in the percentage of people who are becoming consumers of highly processed food, bigger houses, modern gadgets, and bigger cars etc. Largely it is the forces external to an individual which determine the consumption of type and amount of material goods and services today. The paper argued that modern economy has been creating new needs by constructing new notions of food, health, entertainment, comfort, necessity etc. Today's business strategy and technology/images is creating both need and the purchasing power to satisfy it. The marketing agencies create images and packaging to lure the consumers to desire a whole range of goods and services which are probably not normally required. The financial institutions extend various loans, credits and installment schemes to create a sense of purchasing power for immediate consumption. Thus the contemporary consumer is in the midst of a vicious circle of consumer products as well as a constructed sense of purchasing ability both of which lead to strengthening consumerism. Climate change mitigation needs to examine the above cycle of consumption. The urgency of climate change requires us to resolve on the level of individual as well as industrial consumption. The paper argues that the dominant consumption practices based on consumerism need to be replaced with innovative state interventions and a new culture of consumption.

The three worldviews discussed in this paper throws ample light on cultural practices which have deep bearing on controlling greenhouse emissions. The cultural practices and attitude towards natural resources hold a very vital key in climate change mitigation. Presence of these worldviews and related

practices are the testimonies to the possibility of life with sustainable consumption.

Consumption is a sensitive issue as it is linked to personal choice and human freedom. Because of this, it is very difficult to decide on a standardized formula for human consumption. Though there are enough deliberations on climate change mitigation, we have not come across any intervention revolving around control of human consumption. The paper argued that it is possible to change the amount and pattern of human consumption and there are alternative models of consumption which can inform the mitigation policies for climate change. The model needs to be based on prudent use of resources particularly promoting need-based approach. The culture of using what is actually needed and abhorring over-consumption of goods and resources needs to be highly valued and politically encouraged. The present pattern of consumption urgently needs changes at cultural level as it is culture which can influence deeply human behavior and thinking. Sharing, reuse and common use of resources need to be seriously propagated culturally with political support. The model can be inspired by the Ho way of life where individual wealth accumulation is looked down upon and its distribution is prized. Locus of social values and status should shift to wealth distribution and limited use of resources-opposite to the modern lifestyle.

#### Notes

1. The study titled "The physical science basis" by the Fifth Assessment Report (AR-5); Working Group 1 of the IPCC has investigated the evidences of world climate change in 2013.
2. A joint report by US National Academy of Sciences and UK Royal Society compiled various available evidences for causes of climate change. This was titled "Climate Change: Evidence and Causes" and was published in 2014. Available at <http://nas-sites.org/americasclimatechoices/events/a-discussion-on-climate-change-evidence-and-causes/>
3. In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change concluded there's a more than 95 percent probability that industrial activities over the past 50 years have warmed our planet. The panel's full Summary for Policymakers report is online at [http://ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](http://ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf).
4. Madhav Gadgil has divided the world population into (i) biosphere people, living in developed nations and exploiting the natural resources in the third world countries, (ii) the ecosystem people whose resources are exploited by the developed countries and technology, (iii) the ecological refugees who are basically the ecosystem people displaced when the resources are exhausted in their catchment area.

#### REFERENCES

- Bates, A. & Hemenway, T.  
 2010. From Agriculture to Permaculture. In *2010 State of the World: Transforming Cultures*. New York: The World Watch Institute.

Bhattacharya, N. N.

1976. *Jain Philosophy: Historical Outline*. Delhi: Munshilal Manohar Publishers.

Baudrillard, J. 1981

1973. For a Critique of the Political Economy of the Sign. St. Louis: Telos Press.

Baudrillard, J. 1998

1970. *The Consumer Society*. Paris: Gallimard.

Bourdieu, Pierre.

- [2010] 1984. *Distinctions: A Social Critique of the Judgment of Taste*. London: Routledge.

Conrad, P. & and Leiter, V.

2004. Medicalisation, Market and Consumers, *Journal of Health and Social Behaviour*, Vol 45 (Extra Issues): 158-176.

Conrad, P.

1992. "Medicalization and Social Control", *Annual Review of Sociology*. 18:209–32.

Daughton, C G. & Thomas, A T.,

1999. "Pharmaceuticals and Personal Care Products in the Environment: Agents of subtle change?", *Environmental Health Perspectives*. Vol 107, Supplement 6, December 1999, 907-938.

Dayal, P.

2006. *Gandhian Theory of Social Reconstruction*. Atlantic Publishers: New Delhi.

Dyer, Allen R.

1997. "Ethics, Advertising, and Assisted Reproduction: The Goals and Methods of Advertising", *Women's Health Issues*. 7:143–48.

Fiske, S.J., Crate, S.A., Crumley, C.L., Galvin, K., Lazrus, H., Lucero, L. OliverSmith, A., Orlove, B., Strauss, S., Wilk, R.

2014. *Changing the Atmosphere: Anthropology and Climate Change. Final report of the AAA Global Climate Change Task Force*. Arlington, VA: American Anthropological Association.

Gadgil, M.

1985. Cultural evolution of ecological prudence. *Landscape Planning* 12 (3).285-299.

Gadgil, M.

1998. Prudence and Profligacy: A Human Ecological Perspective. In T M Swanson Ed *The Economics and Ecology of Biodiversity Decline*. Cambridge: Cambridge University Press.

- Gailbraith, J K.  
1958 [1998] *The Affluent Society*. New York: Mariner Books.
- Gandhi, A.  
1994. Gandhi's Nonviolence. In William Kelly (ed.) *Violence to Nonviolence: Individual Perspective, Communal Voices*. Chur, Switzerland: Harwood Academic Publishers.
- Gandhi, M K.  
1922. *Speeches and Writings of M K Gandhi*. Madras: G A Natesan and Co.
- Gandhi, M. K.  
1927. *An Autobiography or The Story of my experiments with Truth*. Ahmedabad: Navjeevan Trust.
- Guha, R.  
2006. *How much should a person Consume: Environmentalism in India and the United States*. Berkeley: University of California Press.
- Illich, I.  
1982. *Medical Nemesis: The Expropriation of Health*. Michigan: Pantheon.
- Imershein, Allen W. and Carroll L. Estes.  
1996. "From Health Services to Medical Markets: The Commodity Transformation of Medical Production and the Nonprofit Sector", *International Journal of Health Services*. 26:221-38.
- IPCC  
2013. *Climate change 2013: The physical science basis*. Fifth Assessment Report (AR5) Working Group 1.
- Light, Donald W.  
2000. "The Sociological Character of Health Care Markets", in *Handbook of Social Studies in Health and Medicine*, edited by Gary L. Albrecht, Ray Fitzpatrick, and Susan C. Scrimshaw. San Francisco: Sage Publications.
- Moharana. K C.  
2014. *Mental Illness among the Hos of Odisha: An Ethnographic Study*. Unpublished PhD Thesis. New Delhi: Indian Institute of Technology Delhi.
- Padel, F. & Das, S.  
2008. Cultural Genocide: The Real Impact of Development-Induced Displacement. In Mathur, H.M. (Ed.), *India Social Development Report 2008: Development and Displacement*. Delhi: Oxford University Press/ Council for Social Development.
- Polanyi, K., Arensburg, C., and Pearson, H. (eds)  
1957. *Trade and Market in the Early Empires*, New York: Free Press.

- Ricklefs, R. E.  
1990. *Ecology*. New York : W.H.Freeman and Company.
- Riska, E.  
2003. "Gendering the Medicalization Thesis", *Advances in Gender Research* 7:61–89.
- Rousseau, J. J.  
1950 [1755] "A discourse on a subject proposed by the Academy of Dijon: What is the origin of inequality among men, and is it authorized by natural law?", in G. D. H. Cole. (ed.) *The Social Contract and Discourses*. New York: E. P. Dutton.
- Royal Society  
2010. *Climate Change: A Summary of the Science*.
- Sahlins, M.  
1984. *Stone Age Economics*. London: Tavistock.
- Sangave, Dr. Vilas A.  
2001. *Facets of Jainology: Selected Research Papers on Jain Society, Religion and Culture*. Mumbai: Popular Prakashan.
- Simmel G.  
1978. *The Philosophy of Money* London: Routledge.
- Warde, A.  
2005. "Consumption and theories of practice", *Journal of Consumer Culture*. 5(2): 131–153.
- Wilk, R.  
2004. "Morals and metaphors: The meaning of consumption", in K. Ekstrom and H. Brembeck (eds) *Elusive Consumption*. Oxford: Berg.
- Williams, R.  
1976. *Keywords*. London: Fontana.
- Wolf, E.  
1982. *Europe and the People without History*, Berkeley: University of California Press.