

ENVISIONING **A SUSTAINABLE SOCIETY**

Technology and Business

Presented by
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How much is enough?

Consumption

“We need things consumed, burned up, worn out, replaced, and discarded at an ever increasing rate”

The neglected god in the trinity of issues we call must address if we are to get on a path of development that does not lead to ruin. The other two population growth and technological change – receive attention, but with consumption there is often only silence.

The silence is not surprising.

- Breaking this casual silence requires the richest one fifth of the globe to question their own lifestyles, to challenge the all- pervasive notion that more is better.
- For those of us who belong today the industrial countries that it is gradually becoming clearer *that after a point, more consumption does not equal greater fulfillment.*

How much is enough?

Present Perspective

- ❑ Now is the time to channel that frustration into a movement for what we call a **culture of permanence** – *a society that lives within its means; that draws on the interest provided by the earth's resources, not its principal; that seeks fulfillment in a web of friendship, family and meaningful work.*
- ❑ Only population growth rival's high consumption as a cause of ecological decline and at least population growth is now viewed as a problem by governments and citizens of the world. **Consumption, in contrast, is almost universally seen as good-indeed, increasing it is the primary goal of national economic policy.** The consumption levels exemplified in the two decades the highest achieved by civilization in human history, they manifest the full flowering of a new form of human society: the consumer society.

How much is enough?

Present Perspective

- ❑ The soaring consumption lines which track the rise of the consumer society are, another perspective, surging indicators of environmental harm. The consumer society's exploitation of resources threatens to exhaust, poison, or unalterably disfigure forests, soils, water and air. We, its members, are responsible for a disproportionate share of all the global environmental challenges facing humanity.
- ❑ Psychological evidence shows that the relationship between consumption and personal happiness is weak.

Of course, the opposite of over consumption- destitution- is no solution to either environmental or human problems. It is infinitely worse for people and bad for the natural world too. **solution?**

If environmental destruction results when people have either **too little or too much**, we are left to wonder.

- *How much is enough?*
- *What level of consumption can the earth support?*
- *When does having more cease to add appreciably to human satisfaction?*
- *Is it possible for the entire world's people to live comfortably without bringing on the decline of the planet's natural health?*

How much is enough?

Present Perspective

- ❑ We may be, therefore, in a conundrum- a problem admitting of no satisfactory solution
- ❑ If the life-supporting ecosystems of the planet are to survive for future generations, the consumer society will have to dramatically curtail its use of resources. But ultimately, sustaining the environment that sustains humanity will require that

“we change our values”

HISTORICAL PERSPARIVE, A VISIONFORGOTTEN {FAINT TILL NOW}

By German Born Economist Dr. E.F. Schumacher

- About 70 years back he envisioned the illusion of unlimited powers, nourished by astonishing scientific and technological achievements, has produced the concurrent illusion of having solved the problem of production. The latter illusion is based on the failure to distinguish between income and capital where this distinction matters most. Every economist and businessman is familiar with the distinction, and appeals in conscientiously and with considerable subtlety to all economic affairs-except where it really matters; namely, the irreplaceable capital which man has not made, but simply found, and without which he can do nothing (Minerals).
- A businessman would not consider a firm to have solved its problems of production and to have achieved viability if he saw that it was rapidly consuming its capital. How, then, could we overlook this vital fact when it comes to that very big firm, the economy of Spaceship Earth and, in particular, the economies of its rich passengers?

HISTORICAL PERSPARIVE, A VISIONFORGOTTEN [FAINT TILL NOW]

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- ❑ ***One reason for overlooking this vital fact is that we are estranged from reality and inclined to treat as valueless everything that we have not made ourselves. Now,*** we have indeed labored to make some of the capital which today helps us to produce-a large fund of scientific, technological, and other knowledge; an elaborate physical infrastructure, innumerable types of sophisticated capital equipment, etc- but all this is but a small part of the total capital we are using.
- ❑ Far larger is the capital provided by nature and not by man-and we do not even recognize it as such. This larger part is now being used up at an alarming rate, and that is why it is an absurd and suicidal error to believe, and act on the belief, that the problem of production has been solved.

HISTORICAL PERSPARIVE, A VISIONFORGOTTEN [FAINT TILL NOW]

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Let us take a closer look at this “natural capital”.

- First of all, and most obviously, there are the fossil fuels. No-one, I am sure, will deny that we are treating them as income items although they are undeniably capital items. If we treated them a capital items, we should be concerned with conservation; we should do everything in our power to try and minimize their current rate of use; we might be saying, for instance, that the money obtained from the realization of these assets – these irreplaceable assets-must be placed into a special fund to be devoted exclusively to the evolution of production methods and patterns of living which do not depend on fossil fuels at all or depend on them only to a very slight extent. These and many other things we should be doing if we treated fossil fuels as capital and not as income.

- Look at the figures that are being put forward under the heading “World Fuel Requirements in the year 2000. If we are now using something like 7,000 million tons of coal equivalent, the need in twenty eight years” time will be three times as large-around 20,000 million tons.

The Environment at the Cost of Consumptions

- ❑ Economists use the word- **consume** to mean “utilize economic goods” but the **Shorter Oxford Dictionary’s Definition is appropriate to ecologists. “To make away with or destroy; to waste or squander; to use up.”** The economies that cater to the global consumer society are responsible for the lion’s share of the damage that humans have inflicted on common global resources.
- ❑ The consumer class’s use of fossil fuel,
For example causes an estimated two thirds of the emissions of carbon dioxide from this source.(Carbon dioxide is the principal greenhouse gas.)The poor typically are responsible for the release of a tenth of ton of carbon apiece each year through burning fossil fuels; the middle-income class, half a ton; and the consumers, 3.5 tons. In extreme case, the richest tenth of Americans pump 11 tons into the atmosphere annually.
- ❑ From the crust of the earth, we take minerals; from the forests, timber; from the farms, grain and meat; from the oceans, fish and from the rivers, lakes and aquifers, fresh water. The average resident of an industrial country consumes 3 times as much fresh water, 10 times as much energy and 19 times as much aluminum as someone in a developing country. The ecological impacts of our consumption even reach into the local environment of the poor.

The Environment at the Costs of Consumption

Consumption of selected goods, industrial & development countries, (Late eighties)

Good	Industrial Countries Share of World Consumption	Consumption Gap Between Industrial & Developing Countries
	Percent	Ratio of per capita consumption rates
Aluminum	86	19
Chemicals	86	18
Paper	81	14
Iron & Steel	80	13
Timber	76	10
Energy	75	10
Meat	61	06
Fertilizers	60	05
Cement	52	03
Fish	49	03
Grain	48	03
Fresh water	42	03

The Environment at the Costs of Consumption

High consumption translates into huge impacts. In industrial countries, the fuel burned release perhaps three fourths of the sulfur and nitrogen oxides that cause acid rain.

As people climb from the middle-income to the consumer class, their impact on the environment makes a quantum leap –not so much because they consume different things.

Jyoti Parikh and his colleagues at the Indira Gandhi Institute for Development Research in Bombay used U.N. data to compare consumption patterns in more than 100 countries.

Ranking them by gross national product per person, they noticed that as income rises, consumption of ecologically less damaging products such as grains rises slowly. In contrast, purchases of cars, gasoline, iron, steel, coal, and electricity, all ecologically more damaging to produce, multiply rapidly.

There are good reasons for emphasizing technology and population.

Herman Daly of the world bank points out, for example, that simply stopping the growth in rates of global pollution, ecological degradation and habitat destruction – not reducing those rates, as is clearly necessary – would require within four decades a twentyfold improvement in the environmental performance of current technology. And that assumes both that industrial countries immediately halt the growth of their per – capita resource consumption, allowing the developing countries to begin catching up, and that world population no more than doubles in that period.

Technological change and population stabilization cannot suffice to save the planet without their complement in the reduction of material wants.

Even assuming rapid progress in stabilizing human numbers and great strides in employing clean and efficient technologies, human wants will overrun the biosphere unless they shift from material to nonmaterial ends.

CONTRASTS IN WORLD VIEW BETWEEN THE INDUSTRIAL ERA AND THE ECOLOGICAL ERA

Industrial-Era-View	Ecological -Era View
The goal in life is material progress	The goal in life is to co-evolve both the material and spiritual aspects with harmony and balance.
Emphasis on conspicuous consumption-the "good life" is dependent upon having enough money to by access to life's pleasures and to avoid life's discomforts.	Emphasis on conservation and frugality-using only as much as is needed,; a satisfying life emerges with balanced development in cooperation with others.
Identity is defined by material possessions and social position.	Identity is revealed through our loving and creative participation in life.
The individual is defined by his or her body and is ultimately separate and alone.	The individual is both unique and an inseparable part of the larger universe; identity is not limited to our physical existence.
The universe is viewed as material and largely life less; it is natural that we who are living exploit the lifeless universe for our ends.	The universe is a living organism that is infused with a suitable life-force; it is important to act in ways that honor the preciousness and dignity of all life.

CONTRASTS IN WORLD VIEW BETWEEN THE INDUSTRIAL ERA AND THE ECOLOGICAL ERA

Industrial-Era-View	Ecological -Era View
Emphasis on self-serving behavior (get as much for myself as I can while giving no more than is required in return)	Emphasis on life-serving behavior (give as much of myself to life as I am able and ask in return no more than I require)
Cutthroat competition prevails; compete against others and strive to 'make a killing'.	Fair competition prevails; cooperate with others and work to earn a living.
The mass media are dominated by commercial interests and are used aggressively to promote a high-consumption culture	The mass media are used to promote a balance diet of information and messages, including the importance of ecological approaches to living.
Nations adopt a 'lifeboat ethic' in global relations.	Nations adopt a "spaceship Earth ethic" in global relations.
The welfare of the whole is left to the workings of the free market and/or government bureaucracies.	Each person takes responsibility for the well-being of the world.
Emphasis on personal autonomy and mobility	Emphasis on connectedness and community.

THE PUSH OF NECESSITY AND THE PULL OF OPPORTUNITY

- ❑ In 1930 the world had 2 billion people, in 2025 the world's population will approach 9 billion people. The vast majority of the increase in human numbers is occurring in the less-developed nations. Because the world's ecosystem is already under great stress, as these new billions of persons seek a decent standard of living, the global ecology could easily be strained beyond the breaking point, producing a calamity of unprecedented proportions.
- ❑ More than a thousand million people (1.2 billion) now live in absolute poverty- "a condition of life so limited by malnutrition, illiteracy, disease, squalid surroundings, high infant mortality and low life expectancy as to be beneath any reasonable definition of human decency".
- ❑ Global warming will likely alter patterns of rainfall and disrupt food production, flood enormous areas of low-lying lands, displace millions of people, destroy fragile ecosystems, and alter patterns of disease in unpredictable ways".
- ❑ Cheaply available supplies of oil are being depleted rapidly and, with in a generation, the world will be deprived of an energy source basic to our current form of high-intensity agriculture.
- ❑ Toxic wastes are being poured into the environment, and pollution-induced outbreaks of cancer and genetic damage may reach massive proportions.

The few organizations who changed themselves From just Profit People & Planet to Planet People & Profit.

- B.P. (British Petroleum).
- Delnor Community Hospital, (U.S.A, Chicago).
- Green Mountain Coffee Roasters (GMCR).
- Interface corporate.
- Shell.

Co-creation

Co-creation means co-participating consciously with the laws or patterns of life itself, conscious alignment with the essence of others and with nature.

Corporate Karma

What the organizations can do

- The conventional economies Profit, People, Planet (Environment).
The new realigned economy is Planet, People, Profit.
we can as industrial organizations must put forth Business plans to focus on following:
- First key driver-- Health Safety & Environment and Fire protection.
- Second Key Driver:-to cut the specific consumption of all inputs e.g. Coal, Iron Ore/additives/Water.
- To question basic premise of selecting a technology before installation.
 - To make environment improvement not just comply with minimum stipulation of Govt. (CECB)
- Third key driver of business -- Improvement projects on Environment.
- To consider HSE plans as KRAs of Business leaders of our organizations.
- To make HSE metrics as first point of performance appraisals in organization.