



### **The Shadows of Consumption: Consequences for the Global Environment.**

Peter Dauvergne. Scientific Publishers (India), 5-A, New Pali Road, P.O. Box 91, Jodhpur 342 001. 2011. xx + 336 pp. Price not mentioned.

This brilliantly written book by Peter Dauvergne from the University of British Columbia depicts human behaviour as observed over the centuries. As the title suggests, human behaviour described in this book is characterized by unguided, unbalanced consumption. Unbalanced consumption denotes the plundering of useful natural resources, plant or animal, and unchecked consumption of finished goods. Such human consumption can be described as a lack of frugality, simplicity, self-reliance, reuse, conservation and recycling behaviour.

The book gets its metaphoric name from Dauvergne's attempt '...to analyse not only the direct consequences of human consumption, but also the environmental spill overs of corporations, cross border trade and financing chains that supply and replace consumer goods...'. The author delves into the consumption practice in five case studies. These cases range from high-end manufacturing of the 21st century, to low-end hunting practised in the 17th century. He traces the history of automobiles and leaded gasoline. Both these are considered to be two of the most dangerous inventions of the last century, according to the author. Other case studies in the book portray the development of refrigerators (revealing how an invention hailed as a breakthrough in consumer electronics turned out to be an environ-

mental threat), the complications involved in cattle rearing for beef and heart-rendering harp seal hunting. The book is nicely structured, with two introductory chapters followed by five chapters on each case study. Each case study in turn, has four sub-chapters, with headings relevant to the case study. The author sums up the book with two concluding chapters.

The history of how automobiles, leaded gasoline, refrigerators, beef and harp seal fur sustained to live on with sales despite the ups and downs of business cycles, cunning articulate corporate public relations, extreme climate, war, activist propaganda, international negotiations on environmental concerns, wavering government assistance and customer pull, is narrated in language that is a pleasure to read. Much of what is described in the book, be it the shocking shadows of cancer, tearful Canadian seals, SUV fatalities on the road, Japanese 'Toyota-ization', obvious struggles of MADD, what DuPont and GM do when they come together in USA, implications of 'buy one get one free', carbon dioxide emissions from the US and China, ambition of Chinese manufacturers, implications of efficiency drives, implications of Brazilian leadership in beef production, and the slippery meaning of 'organic beef', triggers an emotional shadow blanketed by disbelief and protective denial in the reader. Dauvergne clearly jolts the reader. Some of what is described is pure horror.

The book is well researched with appropriate references. The descriptions of the death of Bridget Driscoll in the first motor accident, and statistics on the motorcar culture are startling. In Nigeria, public transport systems are referred to as 'danfo' (flying coffins) or 'molue' (moving morgues), as they cause accidents often killing children and adults because of low safety standards in vehicles and wild road traffic rules. As a consequence, this results in ever-increasing medical expenditure. The book constantly narrates the impact of one action, and its consequential outcomes, and in turn their impacts and consequential outcomes, resulting in change reactions that move distantly unconnected to where it all started, involving actors apparently unconnected to the original actor that started it all.

Attention to detailed description is a striking feature of this book. Dauvergne

patiently details incidents, and brings out multi systemic impacts of one or more action. For example, the research experiments of 'showman' scientist Thomas Midgley Jr in the General Motors Research Corporation are the hallmark of this book. The author profiles the individual, narrates to the reader what that person does, and shows that the implications of one man's action is sufficient to throw shadows into the environment. Midgley, a Ph D in chemistry from Cornell University, was supposed to be a genius in whose mind 'ideas bounced about like balls in a pin ball game'. He collected over 100 patents and colleagues thought that one out of ten of Midgley's ideas were simply brilliant. After intense research Midgley's team found that 'a spoonful of tetraethyl lead, costing only a penny, was enough to convert a gallon of gasoline from a rattling, knocking nuisance (in automobiles), into a smooth running motor fuel'. Soon after, when the US Surgeon General asked if tetraethyl was safe, Midgley replied on behalf of his Chairman confidently that, 'the average street will probably be so free from lead that it will be impossible to detect it or its absorption'.

The Midgley narrative is extremely insightful. Lagging behind Ford in profits, General Motors was keen to gain profits by introducing a gasoline that eliminated engine knock. Their eager behaviours were soon stalled, as five workers soon died in the tetraethyl laboratory. They were found black and blue from muscle spasms, writhing in agony, delusional, suicidal and poisoned by ethyl gas. Apparently this incident did not have its impact. The Bureau of Mines reported that, 'No peril to public seen in ethyl gas after long experiments with motor exhausts.' On the other hand, apparently unconnected to the Bureau, New York City Board of Health banned ethyl gas. Surprising, sales went ahead elsewhere. The company took several measures to gain public confidence in the face of continued worker tragedies. Executives in the business claimed that ethyl gas is a gift of God, helping a gallon of gasoline to go 50% further. Controversies got ugly. Various actors were seen playing strong and weak roles; these actors were standards setters, medical professionals and forthright academics. Yandell Henderson, a professor from Yale University, stated that, 'the investigators in the Bureau of Mines have used

experimental conditions which are fundamentally unsuited to afford information on the real issue', and later suggested that General Motors funded the Bureau's research and it was all about protecting 'billions of dollars', implying that because of the money involved, the US government would not ban leaded gasoline. David Edsall and Alice Hamilton also echoed the dangers of ethyl gas. Critics silenced them calling them 'incompetent', 'misguided zealots', 'putting forth hysterical testimonies'. They added that the likes of Handerson could do nothing to stop the impressive sales of leaded gasoline that touched a 90% market share in the 1930s. The author hints that without a doubt, there was a fair amount of assistance from corporate lobbyists at the US Congress. But with time business cycles are intentionally changed. By the 1960s when the ethyl gas profits grew flat, and the company's patent had expired, they sold their ethyl business. With that, the interests of General Motors changed as it revealed that lead destroyed the platinum catalyst in the convertor, implying that unleaded gasoline was needed. By 1970, the slogan was 'lead must go'. However, the damage was already done by 1960 itself, and geochemist Clair Patterson noticed 'high lead levels in the northern hemisphere'.

The story goes on with Midgley about his 1928 discovery, namely chlorofluorocarbons (CFCs), a stable chemical compound to cool refrigerators, later sold by DuPont and General Motors as 'Freon'. It was only around 1974 that the American Chemical Society made policies about CFC, and clarified the rate at which it will deplete the ozone layer, cause skin cancer and cataracts. The 1995 Nobel Prize-winning finding of Mario Molina and Sherwood Rowland in 1974 that CFCs deplete the ozone layer, showed 'the power of science to get it right, too'. DuPont defended CFCs by saying that 'imaginative musings of ivory tower academics' (referring to Molina and Rowland), had gotten it wrong about CFC. Nevertheless, the Montreal Protocol on substances that deplete the ozone layer entered into force on 1 January 1989. Science proved its might again by bringing a CFC-free refrigerator. All the leading players in the refrigerator industry competed with each other to bring out more eco-friendly and energy-saving refrigerators after the implementation of the Montreal Protocol. However, Zam-

bian fishmongers as late as 1999 stated, 'Whatever this CFC means ...all I know is that the deep freezer has been a big asset for me.' Dauvergne correctly points out that, 'international agreements and new technologies can interact with corporations and trade to change the ecological impacts of global consumption'. This book clearly implies that someone must watch out for this and bring about corrective ecologically sustaining measures.

Dauvergne writes about the complex relations that corporations, financial institutions and policy-makers have, which are sometimes good and sometimes bad. He describes how the state and corporate entities view globalization as 'more of an ideology rather than a set of processes' (p. 6). He says that globalization of investment, trade and technologies not only bring about economic benefits but also an opportunity to export environmentalism. World Bank and the International Monetary Fund not only pressurize developing countries to liberalize investment and trade rules, but also (along with the United Nations Development Programme) act as enforcers to the Global Environment Facility (GEF), where grants and technical assistance is provided to developing countries for 'projects having a global environmental goal'. Successful technology transfer, along with adequate support from GEF and United Nations Environment Programme helped Sub-Saharan Africa overcome the use of leaded gasoline. This is a good example of how globalization helps promote good environmentalism.

Multinational corporations can use trade as an excuse to overcome legislations and environmental concerns raised in local markets. The Ethyl Gasoline Corporation was advocating the use of leaded gasoline to be safe. They used their financial clout to delay legislations against leaded gasoline. When leaded gasoline was declared unsafe and polluting, the Ethyl Gasoline Corporation exported it to the developing world in order to maintain its profits. Similarly, when activism on harp seal hunting almost succeeded in reducing the consumption of white coat seal pups in the First World, Canada started exporting white coat seal pups to Russia and China, where environmental sympathies are not the best. This way corporate sales were sustained.

While trade and globalization has gone on to become the engine of growth in the

world, the same has also resulted in the deviation from what is called 'sustainable development'. Dauvergne defines sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (p. 7). Consumption is the resultant behaviour of end-user customers world over, enamoured by the product and service offerings of many actors like skilled businessmen, some scientists, most multinational corporations, some financial institutions, some policy-makers and governments that abet this behaviour, both domestic and global.

The five case studies clearly imply that whilst at times the actors intentionally turn their faces to actions that throw shadows on the environment because of their fear of the looming shadow that corporate profits casts on them, at other times, there is poor scientific proof, insufficient activist influence and apathy to do something. Nevertheless, there have been many cases where the good prevailed over the bad, and shadows were reigned in.

A thorough piece of academic work, this book is interdisciplinary in nature mixing elements of chemical sciences, biological sciences, economics, business, political and social sciences. The book is strongly recommended as a must read for all. It reveals how the social and economic demand for improving an imagined and creative standard of living forces correctional balances. It is clear that this begins in the minds of citizens, and this book intends to bring out a sense of awakening for all. The reader will understand the thought process that goes into policy/law making and how pressure groups influence it. They will learn about potential hindrances that delay legislations, their enforcement, and how bold and strict legislations eventually lead to healthy green life styles.

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