SMART

JOURNAL OF BUSINESS MANAGEMENT STUDIES

(An International Serial of Scientific Management and Advanced Research Trust)

Vol.6 No. 1 January - June 2010

ISSN 0973 - 1598

Chief Editor
M. SELVAM, M.Com., Ph.D.,
Bharathidasan University,
India



SMART Journal is indexed and abstracted by Ulrich's Periodicals Directory, Intute Catalogue (University of Manchester) and CABELL'S Directory

SCIENTIFIC MANAGEMENT AND ADVANCED RESEARCH TRUST (SMART)

TIRUCHIRAPPALLI (INDIA)

http://www.smartjournalbms.org

ENVIRONMENTAL MARKETING - AN INNOVATIVE APPROACH

A. Elangovan

Professor and Head, Department of Commerce, Periyar University, Salem, Tamil Nadu, India.

Abstract

The fragile environment is undergoing unsustainable levels of stress from growing population, with their ever increasing needs and wants. Fast depletion of resources, shrinking of water bodies, desertification, pollution are some of the major problems the present generation faces. Scientists bring to our attention complex but urgent problems that are bearing on our very survival-a warming globe, acid precipitation, threats to ozone layer, accumulation of green house gases, deserts consuming agricultural land, fast depletion of vital natural resources, the disappearance of rain forests and loss of species. The ecological crisis is the outcome of the human impact on nature. Unbridled access to natural resources by the corporate business is considered the primary source for the present crisis. If the present trend of overdrawing of resources is allowed, it would result in environmental catastrophe which would ultimately paralyze the trade, industry and commerce. The present paper is an attempt to look into this danger. 'Waste' is an antecedent of pollution. Waste, particularly solid waste, is the resultant output of our consumption. The present marketing does not have any strategy to address this problem. Therefore, a new concept viz., Environmental Marketing, which considers nature as one of its customers, is fast emerging. As part of Environmental Marketing, a survey was conducted to know the environmental awareness. Friedman ANOVA was applied to know which problem was considered most serious to be addressed immediately. Accordingly, solid waste, the most important problem, responsible for global warming has to be addressed immediately. The paper also provides a model to solve this problem.

Introduction

The fragile environment is undergoing unsustainable levels of stress from growing population, increasing demand on resources and pollution from household, agriculture and industries. The scale and magnitude of human activities are affecting the world's climate, ecology and environment. Scientists bring to our attention complex but urgent problems that are bearing on our very survival. A warming globe, acid precipitation, threats to ozone layer, accumulation of green house gases, deserts consuming agricultural land, fast depletion of vital natural resources, the disappearance of rain forests and loss of species are matters of concern. Reports indicate that the Baltic Sea is dying from sewage and other pollution.

The Ecological Crisis is the outcome of human impact on nature. Reliance on fossil fuels, use of firewood for household purposes, dramatic deforestation as well as farming activity make up an essential cause of the current global warming. These activities are releasing around seven billion tonnes per annum of Greenhouse Gases into the atmosphere.1 Unbridled and apparently uncontrollable growth of industry, transport and motor vehicle are considered the primary sources of sulphur dioxide and nitrogen which pollute air. This air pollution has become a serious problem in major urban centers. Man's greed for socio-economic progress has initiated exploitation of not only co-human and other beings but also the faculty of natural resources. In this process, man has reached an extreme state of polluting his own environment, thereby endangering the peaceful and natural living of all.2

Every year, we lose 25 billion tonnes of topsoil, affecting 6 to 7 million hectares of agricultural land affected by water-logging, salinisation and alkalisation.³

Need for the Study

Huge increases in population and rapid economic growth have conspired to create an expanding environmental catastrophe. The list of pervasive and widespread environmental problems are air pollution, water pollution in the vast majority of rivers, water shortage throughout the country, ocean pollution, mountains of solid and toxic waste, destruction of the remaining scattered habitats, near-total deforestation, rampant over fishing, depletion of agricultural land and uncontrolled consumption of even highly endangered species for food and traditional medicine.

The human and economic costs are monumental, with people suffering from pollution related diseases and frequently triggering mass migration to the cities. The cost of the country's economy from environmental degradation, resource scarcities, air and water pollution has been estimated in India to be about 4.5% of GDP. By far the most important reason for the changes that have occurred in land, air, and water is the large scale destruction caused by man's activities. Marketing is considered as an important element and its purpose is to enhance the wellbeing of all participants in the exchange processes. Marketing is an activity that extracts resources from earth, converts them into products and services and returns the residue back into the biosphere.

This generates Solid Waste and produces substantial pollution problems. Our control over the natural environment has risen to the point that the natural order of the evolutionary processes is moving ever closer to being an Anthropocentric System rather than a Biocentric System. Until recently, little thought has been given by Marketers to the impact of their activities. There is now substantial evidence to suggest that this supportive baseplanet, Earth, is not capable of sustaining the

continued rate of marketing activity it has experienced over the past five decades.

Organized efforts by the Economic Planners or Marketers break the link between man and the natural environment. The natural environment is viewed by humans as a free resource to be exploited and used for the well being, separating the people from the environmental results of the economic decisions. Indiscriminate use of resources depletes the biosphere of its natural ability to replenish itself. The capacity of the natural system to withstand disruptions through the introduction of man made wastes and extensive use of unnatural fertilizers, is limited.⁶ The present Economic Marketing and Consumption Culture put pressure on earthly resources and therefore these activities and strategies have been essentially redefined. A shift in the fundamental approach of marketing needs to take place so as to facilitate sustainable development.

Objective of the Study

The objective of this study is to analyze the role played by conventional marketing practices in degrading the environment and suggesting an alternative approach which addresses the environmental concerns of emerging environmentally conscious consumers.

Sample

A Survey was conducted in Pondicherry Town. A survey instrument containing only two questions was developed to carry out the Survey. The respondents were selected from the customers visiting the various super markets in the town by following the Convenience Sample Method. Out of 618 contacted, 500 responded.

Analysis of the Study

Sample respondents' characteristics are given in **Table -1.1.** The Table is self explanatory. Out of the total respondents

contacted, 84.6 per cent of respondents were from Town and 15.4 per cent were from Village. With respect to education, 110 respondents qualified up to Higher Secondary, 237 qualified as Graduates, 115 studied Post-Graduation and 38 belonged to the category of Others. In the case of sex, 233 respondents were female and, 267 were male.

The following is the result of the ranking of various environmental problems by the respondents. For the first question, "Are you concerned about the degrading environment?", all the respondents answered that they were concerned.

The Friedman ANOVA result reveals (see **Table- 1.2**) that there was a significant agreement in ranking among the ecologically concerned consumers about environmental problems. Further, respondents have ranked 'air, water and soil contamination' first and 'dust wave' second. Noise, high temperature and respiratory problems were ranked third, fourth and fifth respectively. Hence, it is clear that ecologically concerned consumers have felt that air, water and soil contamination are the most serious environmental problems, followed by dust wave, noise, high temperature and respiratory problems.

The failure of Conventional Marketing

The Conventional Marketing encourages a Consumption Culture of "use and throw", resulting in large volume of waste which is considered the main cause of air and water pollution. India will probably see a rise in waste generation from less than 40,000 metric tonnes per year to over 1,25,000 metric tonnes by the year 2030.

In fulfilling the objective of economic gains, the enterprises found themselves churning out more and more money, became short-sighted, started overusing the natural resources. Further, the corporate aims at maximizing financial gains in the short-run. In order to achieve this goal, the enterprises employ the marketing skills in expanding consumption base, shifting cheap technology, shifting consumer bases, re-locating activities, modifying marketing and reducing the accounting costs for inputs. Khanna and Rambabu tried to integrate environmental accounts with economic accounts. Calculations indicate that 5.66 per cent annual growth rate during the period 1980-90 based on economic accounting, actually resulted in just about 5 per cent negative growth rate when the GDP was adjusted against environmental degradation.⁸ Thus the economic growth derived out of efficient marketing becomes a stumbling block for sustainable development.

From the above, Marketing emerges as the root cause of environmental crisis. Because it is amoral in its present form, the marketing concept has outlived its usefulness, especially for those firms whose products, engines, fertilizers, detergents, fuels, nuclear reactors, plastic packages etc.contribute to pollution that threatens man's very survival. A new concept of business responsibility to public and to future generations must replace the current criterion of the highest level of individual need satisfaction that has been the goal of the marketing concept.

Consumption and Waste

Waste from household, agricultural and industrial origin alike is carried off in the world's water bodies, turning them into gigantic sewers. The direct consequences are the accumulation of heavy metals, highly toxic organic compounds in sediment on the ocean floor, riverbeds and lakebeds resulting in the massive death of aquatic life. Soil pollution is a consequence of agricultural practices imposed by market pressure, intensive farming, monoculture, crops unsuited to local ecosystems and climates etc.

The environmental impact of consumerism on the planet became apparent during the last 30 years right from the 1972 Stockholm Conference. The 1992 Earth Summit in Rio, the continuing debate on global warming and the hole in the ozone layer are visible recent examples. Between 1970 and 1995, global per capita rose by one-third and in the rich world more food, energy and transportation were consumed. Energy consumption increased rapidly and water shortages became more apparent. Globalization and the implications of a car, packages- dependent life style increased the strain on the earth's resources.

People are guided by an unlimited desire for additional goods and are influenced by an attitude of grandiosity, of being superior, of having things under control, of improving one's position, of preferring new commodities to old ones. Eventually this over consumption on a vast scale productivity impacted the environment.¹⁰ Through the mass media and the process of globalization, this "Over Consumption Society" has become an ideal for people all over the planet-a way of life to which millions aspire. The ideology of consumerism has been developing for some time but it is in the last 30 years that it has assumed a dangerous form.¹¹

Marketing has a great role in increasing the private affluence which in turn stress the earthly resources. A great deal of time, effort and money goes into establishing what is likely to appeal to individual taste which ultimately leads to generation of waste. Apart from degrading the environment, it causes air, water, soil pollution. Advertising increasingly aims not so much to provide information but to engage the emotions in the buying of products. People are driven by their emotions, not by the facts and logic. Increasingly the only button you press is an emotional one and you find out what the needs are and you discover ways of reflecting these needs¹² Yet it is the accumulation of

goods and the energy needed to produce them which is contributing to the chronic environmental burden which confronts our planet.

The Various Types of Wastes

The Ministry of Environment and Forests (MOEF), Government of India, has made a beginning in this respect. Under the Environment Protection Act 1986, the Ministry has notified the rules for the management of different types of waste viz.,

- 1. Municipal Solid Wastes
- 2. Bio Medical Wastes
- 3. Hazardous Wastes ¹³

Though there are different types of waste, this paper confines its discussion only to Solid Waste.

Solid Waste

Solid Waste can be defined as material that no longer has any value to the person who is responsible for it and it is not intended to be discharged through a pipe. It does not normally include human excreta. It is generated by domestic, commercial, industrial, healthcare, agricultural and mineral extraction activities and accumulates in streets and public places. The words such as "garbage", 'trash' and 'rubbish' are used to refer to some forms of Solid Waste.¹⁴

Municipal Solid Wastes

Municipal Solid Waste is the material for which the primary generator or user abandoning the material within the municipal area required no compensation upon abandonment.¹⁵ In addition, it qualifies as an urban solid waste, if it is generally perceived by the society as being within the responsibilities of the municipal authorities. Solid Waste includes commercial and residential wastes generated in municipal or notified areas in either solid or semi – solid form,

excluding industrial hazardous wastes but including treated bio – medical wastes. ¹⁶ Management of any Solid Waste requires the knowledge of the sources of waste generation, generation rates, quantities of waste generated and the physical and chemical characteristics of the waste. It is also pertinent to know the components and composition of waste.

The following are the sources of MSW.

- 1. Domestic waste
- 2. Commercial waste
- 3. Institutional waste
- 4. Street sweeping
- 5. Debris or construction rejects
- 6. Waste offal, dead animals etc

Figure 1. Projected provides projected trends in the generation of Municipal Solid Waste (million tonnes / year) according to BAU (Business As Usual) Scenario. This enormous increase in solid waste generation has significant impact in terms of the land required for disposing the waste as well as on methane emissions. It is evident from the fact that the cumulative requirement of land for disposal of MSW, would amount to around 1400 kms by 2047. Figure 2 depicts the cumulative land requirement for disposal of Municipal Solid Waste.

Sustainable life styles and new role of marketing

Right from the Stockholm Conference of 1972, on Human Environment, the term "Sustainable Development" became popular and it featured 87,20,000 web pages and enmeshed in the aspirations of the countless programmes, places and institutions. Running through all those pages of discussion, a focus has been given on the importance of individual change and individual responsibility in order to achieve sustainable practices. The Brutland Commission defines sustainable development as "Humanity has the ability to make development sustainable to ensure that it meets the needs of

the present without compromising the ability of future generations to meet their own needs'.

Sustainable Development as a Concept, as a Goal and as a Movement, spread rapidly and is now central to the mission of countless international organizations, national institutions, corporate enterprises which express their concern over conservation and preservation of natural resources to continue the exercise of marketing to satisfy the needs and wants of not only the present generation but also the generations to come. World Conservation Strategy of the International Union for the Conservation of Nature 1980, argued for conservation as a means to assist development specifically for the sustainable development. In Sustainable Development, major focus is on intergenerational equality. Human needs are basic and essential; that economic growth is required to sustain them; and that equity is encouraged by effective citizen participation.

Therefore, the concept of Sustainable Development does imply limits, limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But contrary to the above, the transnational corporations hold the strategy of creating individual identity which emphazises the creation of goods to satisfying needs and changing the life style of the individuals and society which is not acceptable to the concept of Sustainable Development.

The critical role of marketing in development will be appreciated only when it adopts sustainable marketing practices. This means that marketing should shed its present profligacy that encourages an unsustainable consumption. A marketing approach may be developed which aims at serving the material wants of consumers through an ever increasing volume of goods without any attempt to draw too heavily, and too quickly, on already

overdrawn environmental resource.²⁰ A fundamental shift in the approach of marketing is needed to take place so as to facilitate Sustainable Development by shaping customer needs and expectations and ability to identify and develop such consumption choices for society that meet its current needs without sacrificing the ability to meet its future needs. This means that markets not only look for green products that do not damage the environment but also develop such products and services that will improve the poor condition of our environment.

Marketing's Role in Sustainable Development

Marketing's role in the development processes is well recognized. Much of the economic activity is triggered by the marketing process that offers and stimulates consumption opportunities to satisfy human needs and wants. However, the critical role of marketing in development will be appreciated only when it meets the needs of the present without compromising the ability of future generations to meet their own needs through environmental marketing. This means that the present marketing practice of encouraging over exploitation of natural resources should be given up. Keeping this in mind, a new marketing approach may be developed which must aim at serving the material wants of consumers through an ever increasing volume of goods without taking too much resources on already overdrawn environmental resources.

The purpose of a business is to provide benefits to the customers through products. This is accomplished by transforming resources into bundles of tangible and intangible attributes that provide customer satisfaction. But this process has side effects- the generation of waste which is antecedent to pollution. Pollution and its effects have become the most prominent social concern of the consumers. In other words, environmental concerns such as global

warming, toxic waste disposal, resource depletion, and landfill management have created environmental sensitivity. Hence the present marketing approach is expected to reflect this newly emerged environmental sensitivity. The strategy can originate with a firm's evaluation of current production and marketing practices and adjusting behavior to reflect an increased level of environmental awareness. Further, change of strategy is necessary since many consumers perceive that business is responsible for an ample portion of the waste products generation in the country and therefore, should be held responsible for the current ecological crisis. 22 The potential business response to the increased level of environmental awareness of the general public lies in the adoption of an ecological orientation.

Environmental Marketing

A new paradigm is now in the making i.e. Environmental Marketing. It is neither a Social Movement nor a system to return to the lower levels of living and a simple way of life. Rather it is an adaptation of current marketing practice. Social Marketing has become an important concept in the marketing discipline. Environmental Marketing embraces concepts and techniques of the marketing of various socially beneficial ideas and causes instead of products and services in the commercial sense. 24 This definition implicitly includes ideas on the preservation, conservation, and protection of the physical environment as a component of Social Marketing. According to Henion and Kinner, Ecological Marketing is concerned with all marketing activities that help to solve environmental problems.²⁵ Thus, Ecological Marketing is the study of the positive and negative impact of marketing activities on pollution, energy depletion and non energy resource depletion. Mintu and Hozada have defined Green Marketing as "the application of marketing tools to facilitate exchanges that satisfy organizational and individual goals in such a way that the preservation, protection, and conservation of the physical environment is upheld". ²⁶

Mintu and Hozada note that Green Marketing goes beyond image-building activities, and their definition of Green Marketing parallels Caddington's Environmental Marketing. Environmental Marketing is "marketing activities that recognize environmental stewardship as a business development responsibility and growth opportunity and the environmental marketer adds the environment to the standard mix of decision making variables" 27

Thus Green Marketing can also be called Environmental Marketing or Sustainable Marketing. In short, Environmental Marketing is concerned with scanning the marketing environment, identifying ecologically sensitive customers and studying their green needs and motivation to designing, pricing, promoting and distributing products that have a minimum detrimental impact on the environment. In other words, Environmental Marketing places emphasis on sustainability of marketing activities of a firm so that these either create a positive impact or lessen the negative impact on the environment.

The Trio presented in **Figure - 3** is crucial to the understanding of environmental problems and to the identification of creative solutions. Several strategies are recommended in order to effectively understand environmental problems and provide solutions. A symbolic relationship or partnership has to exist between the Trio members to strengthen the environment.

Instead of creating waste and attempting to find solutions to the waste is very expensive. Prevention is better than cure. Hereafter, the plan and execution should attack the roots of waste generation. The present environmental degradation and resultant pollution cannot be

solved by Government intervention alone. Considering the volume of waste generated, a new approach ought to be developed which should include all the waste generators.

The basic problem of pollution is waste. Every product generates 'waste'. Therefore paying adequate attention to product designing will be the starting point in addressing the pollution problem. The current marketing and consumption practice is another reason for pollution that should also be looked into. A model has been introduced and if it is implemented, a drastic change in the waste management would be ensured.

Business Organizations

Corporates need to think and act seriously on product planning, redirecting the consumer needs towards sustainable consumption, reorienting the entire marketing-mix and reorganizing their strategies and action plans in translating the environmental sensitivity into actions.

Government

Government can intervene in addressing the problems of waste through appropriate legislature measures, regulation of policies covering performance standards, clean technologies, and reforming cultural, social practices for sustainable consumption. Also, the Government can participate through its purchase and procurement of environmentally friendly products.

Consumers

Growing waste disposal problems could be mitigated by consumers by following the strategies of reducing their over consumption, re-using the products again and again and segregating the waste as degradable and non-degradable by adopting the Two Bin system.

Conclusion

Conventional marketing involves providing products that satisfy consumer needs at affordable prices and supporting those products with communications that project value to the consumer. This has created an adverse impact on the environment, which the modern marketing concept of understanding customer needs and fulfilling them is insufficient in addressing the newly emerging environmental concern. Hence, the new paradigm is Environmental Marketing i.e., productionconsumption systems designed to meet the needs of the customers, should not damage the ecosystem in the process. Environmental Marketing requires that production consumption activities must become compatible with the ecosystem. It is a business growth opportunity. Moreover, regulatory and activist pressure for Corporate Environmental Stewardship is increasing. The Survey reveals that people are aware about environmental problems and they are concerned about the degradation of environment. Therefore it is suggested that the present marketers are advised to take this emerging customers' concern in their marketing decisions.

References

- 1. Grija Tickoo (2005), Environment, Article and Web alert, May London, June pp 3
- 2. Maheswara Swamy (2001), Law relating to Environmental Pollution and Protection, S.P.Gogia Publishers, Hyderabad, pp 1.
- Jagadish N. Shath, Atual Parvatiyar, (1995) "Ecological Imperatives and the Role of Marketing", the Hawarth Press Inc., New York, pp 3 to 20.
- 4. Paul G. Harris, (2006), "Environmental Perspectives and Behavior in China," Environment and Behavior, volume: 38, No 1, January, London, pp 5 to 21.
- 5.& 6. Bill Neace. M (1995) "Marketing's Linear -Hierarchical Underpinning and a Proposal for a Paradigm Shift in Values to include the Environment," Environmental Marketing, the Haworth Press Inc., New York, pp 55.

- 7. San jay K.Gupta (2004), Rethinking Waste Management, www.indiatogether.org.com.
- 8. Mugal Gupta (2004), Ecological Consequence of Marketing, http://www.indiainfoline.com/bic/mdmk 0.4
- 9. Michael Cahill (2001), "The Implication of Consumerism for the Transition to a Sustainable Society", The Journal of Social Policy & Administration, vol.35, No.5, December, United Kingdom. pp 627 to 639.
- 10. World Wide Fund for Nature, Living Planet Report 1998, pp10.
- 11.& 12. Gerhard Seherhorn (1993) "Consumers Concern about the Environment and its Impact on Business", Journal of Consumer Policy, Kluwer Academic Publishers, Netherlands, pp 171-191.
- 13,14,15,16 & 17. Solid Waste Management in Class I Cities in India (1999), Report of the Committee Constituted by the Hon. Supreme Court of India, pp 83 to 91.
- 18 & 19. Kates; W, Parris.M, and Heiserowitz, (2005), "What is Sustainable Development", Environment, vol.47, No.3, Sage Publications, London, pp 9 to 21.
- 20. Jagadish N. Shath, Atual Parvatiyar, (1995) "Ecological Imperatives and the Role of Marketing", the Hawarth Press Inc., New York, pp 3 to 20.
- 21. Philip Kotler, (1986) "The Role of Marketing in Development, Proceedings of the International Conference on Marketing and Development," Turkey, September 1-4.
- 22. Morgam Miles and Munilla.S. (1995). The Ecomarketing Orientation. An Emerging Business Philosophy, Environmental Marketing, The Haworth Press Inc., New York, pp 23 to 36.
- 23. Azhagaiah. R and Elangovan. A (2006) "Green Marketing and Environmental Protection," Indian Journal of Marketing, Volume 37, No 1, New Delhi, pp 19.
- 24. Fox and Philip kotler (1980), "The Marketing of Social Causes: The First Ten Years". The Journal of Marketing, USA, 44 pp 24 to 33.
- 25. 26 & 27 -Lozada.R and Mintu-Wimsatt.T (1995) "Green Based Innovation: Sustainable Development in Product Management", Environmental Marketing. The Haworth Press Inc., New York, pp 181.

Table 1.1 Demographic Profile of the Sample Data

Demographic Characteristics	Number	Relative Frequency	
Residence			
Town	423	84.6per cent	
Village	77	15.4per cent	
	500	100.0per cent	
Education			
Up to Higher Secondary level	110	22.0per cent	
Graduates	237	47.4per cent	
Post Graduates	115	23.0per cent	
Others	38	7.6per cent	
	500	100.0per cent	
Sex			
Female	233	46.6per cent	
Male	267	53.4per cent	
	500	100.0per cent	

Table 1.2 Results of Friedman ANOVA and Kendall's Coefficient of Concordance on Ranking Scores of Respondents relating to Environmental Problem

Sl. No	Environmental Problem	Ad-Agencies (n = 25)			
		Average	Sum of	Rank	
		Rank	Ranks	Obtained	
1	Respiratory Problems	4.21	2106.5	5	
2	Fog	6.11	3054.5	8	
3	High Temperature	4.19	2093.5	4	
4	Noise	4.13	2066.5	3	
5	Dust Wave	4.00	2001.5	2	
6	Air, Water, Soil Contamination	2.67	1334.5	1	
7	Species Vanishing	5.90	2948.0	7	
8	Global Warming	4.79	2395.0	6	
Kendall's 'W" (Coefficient of Concordance)		0.20344			
Friedman ANOVA Chi-Square Value 712.02*** (7)					

Source : primary data

***Significant at 1 per cent level. Figures in parenthesis show the degrees of freedom. Table value of Chi-square for d.f. 11 at 5% level = 19.67 and at 1% level = 27.72

Figure 1 Rising quantities of MSW from 1997 to 2047

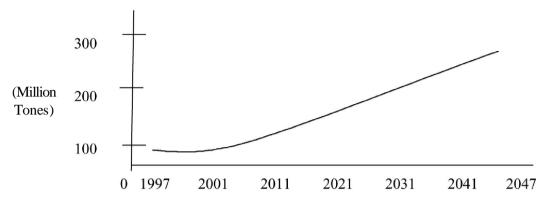
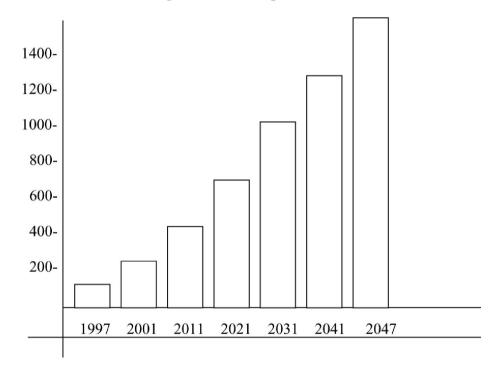


Figure 2 Land required (KM)



Strategies of Environmental Marketing: Figure 3 - The TRIO

