

Fundamentals of sustainable development, Authors –Niko Roorda with Peter Blaze Corcoran and Joseph P. Weakland, Routledge , Taylor & Francis Group.

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Abstract:

The subject of sustainable development is a relevant question in today's world. Natural disasters and immense catastrophes are forerunners towards successful sustainable development. In today's world, fossil energy remains denuded in half a century from now. So the question of renewable energy, environmental sustainability and energy sustainability. This treatise gives immense glimpses of successful and probable sustainable development in various parts of the world. The examples are very much informative and thought-provoking. Problems ranging from water crisis to environmental disasters are elucidated in details at every corners of this research treatise. The vision is clear and promising as it reaches to the larger audience of human race and the stakeholders of environmental and energy sustainability.

Key Words-environment, energy, sustainability, global, water, crisis.

1.0 Introduction:

Sustainable development is an intricate issue in today's era of energy and environmental sustainability. The question of sustainability is fully linked with the human survival and mankind's path of success and life. This is a lively and challenging resource book aimed at all who have interest in sustainable development. It provides some excellent case studies and descriptions of the complex and diverse issues concerned with making this planet a safer and fairer place upon which we can all live.

The impact of development needs to be considered beyond the narrow focus of economic, ecological or social concerns. This widely reader friendly book is a pioneer to promote a holistic approach to sustainable development. People, planet and profit remains as the ultimate theme of this direction of the present research. It envisions people, cultures, social cohesion, empowerment , education and health, nature and the environment , and prosperity and the economy, to help and guide readers in the realm of fundamentals of sustainable development.

2.0 A detailed description and analysis of the treatise:

The book has been written in an accessible manner, and can be read with ease by those with no previous understanding of sustainable development. The first part deals with an overview of the conceptual and practical challenges in sustainable development stemming from human-environment relations as well as issues of inequality and insecurity. The second part explores strategies and solutions for facing these immense challenges. It presents case studies from all over the world and draws on many disciplines to investigate topics such as climate change, energy, technology, political and economic instruments, and sustainable business practices.[1]

This book consists of two visionary parts. The first, chapters 1 to 4, analyses the situation in the world with respect to sustainable development, while the second part, chapters 5 to 8, provides a range of strategies and methods for solutions in terms of sustainable development. The first part of the book deals with intricate questions while second part deals with its answers.[1]

Chapters 2 and 3 proceeds with analyzing a number of so-called flaws in the fabric – weaknesses and threats that together constitute the reasons why people around the world are targeting sustainable development.

An analysis of the strengths, weaknesses, opportunities and threats is often abbreviated as a ‘SWOT analysis’ which is why part I carries that name.

Through the SWOT analysis, it will be possible, by the end of Chapter 4, to formulate twelve objectives for sustainable development –ones that at the very least will have to be attained in the decades to come. These will comprise the agenda for selecting strategies for the solutions that will be discussed and deliberated in part II.

Part I comprises of the following salient features:

- 1) Sustainable development : an introduction.
- 2) Flaws in the fabric: people and nature.
- 3) Flaws in the fabric: people and society.
- 4) Sources and resources of vigour.

Chapter 1 deals with an introduction to sustainable development. In this chapter the following topics and concepts were discussed in details:

- 1.1 Man and nature
- 1.2 Rich and poor
- 1.3 Problems and success stories
- 1.4 The definition and deliberation of sustainable development.
- 1.5 The triple P-People, Planet and Profit

In the section on 'Man and Nature', the authors deal with the Dutch people's age-old battle with water. There have been many deluges over the last thousand years, both from the sea and from rivers, and there is a good reason why the Netherlands is renowned around the globe for its dykes. Netherlands has shown the world how to stand before natural disasters especially flooding. Their endeavours and efforts are visionary and exemplary. In the wake of the great flood of 1953, which saw over 1800 people lose their lives, the Delta works were constructed, with dykes raised and storm – surge barriers installed across the river deltas of south-west Netherlands. Once the entire project was completed, it was thought the country was secured against flooding. But nature turned out to be untrue.

The major rivers of the Low Lands provided a sudden and unpleasant surprise in both 1993 and 1995, with flooding occurring twice in a few years. In the course of 1995 much work was done investigating the causes, and it emerged from research and debates that there were a number of reasons.

Researchers found out that the rivers have been canalized. In other words, the winding and twisting – the meanders – that originally constituted parts of the rivers were straightened. This was done to facilitate shipping and dyke-building, but it also means that the water flows through the rivers at a greater speed and the rivers contain a smaller volume of water. While this is not noticeable under normal circumstances, in the winters of 1992-3 and 1994-5 there was an extraordinarily high rainfall in Europe, and a large proportion of that rain flowed through the Netherlands into the North Sea. There was simply not enough space for that mass of water. The situation was further exacerbated by the fact that the floodplains, a natural feature of rivers, were no longer available because of the dykes. So the intense flooding.

There was yet another cause for the floods-deforestation. Forests alongside the river had been felled on a large scale, not just in Netherlands but in other countries too-in the regions where the water flows down from the mountains and gathers. So the result is tremendous flooding.

The struggle between the Dutch people and the water that surrounds them serves as an example of the relationship between people and environment. Their struggle against natural disaster is visionary and exemplary. The Dutch people trusted the technology for controlling water-to the extent that homes were even built in the washlands. In the year 1993 and 1995 the rivers demonstrated that radical alterations in environment can devastate nature. The reasons which depends on environmental sustainability are the combination of canalization, deforestation, urban development and perhaps global warming – each of these changes might not have caused floods of such magnitude on its own, but the combination of them proved disastrous and catastrophic.

In order to strive towards a greater environmental sustainability, the 'Room for the River' programme was born in Netherlands. A national ecological network was created focusing on the restoration of biodiversity and the resilience of the natural environment.

This example of Dutch biodiversity endeavour has propelled the concept of sustainable development to the forefront of mankind and human race. This is an example by itself. The definition of sustainability is projected in which interests of humanity, the economy and the natural environment are balanced with each other. Sustainable development can be encountered on an international scale.

In Section 1.2 , the author deals with the intricate relationship between humanity and the natural environment. The author brings before the reader the unequal distribution of prosperity between people in different parts of the world, between rich and poor. In the case of golden rice, there has been a meeting of two different cultures, on the one hand there are a few billion ordinary people lacking nourishment and suffering from malnutrition , on the other hand there are Western – oriented companies with profits stretching into billions. The question arises – is it really true that the genetically changed(genetically modified or GM) golden rice can solve the problem of vitamin A deficiency?

Biotechnology is expensive , and it costs a great deal of money to develop a new crop. Here comes the question of gulf between rich and poor. The multinational companies are developing these crops in order to make profit while on the other hand the Third World farmers have little money and cannot afford such seeds. These are the reasons why the environmental organization Greenpeace has declared itself an opponent to genetic modification.

Section 1.3 lucidly deals with problems and success stories. Our planet and human mankind are faced with problems of climate change, child labour , mountains of waste, problems involving immigration, the depletion of natural resources, refugees, soil pollution, hunger, war epidemics and terrorism. These are few examples of a larger disaster and immense catastrophe. So here question of sustainable development and environmental sustainability comes into play. Man's as well as scientist's vision is widened and is complete with versatility.

In Section 1.4, the author effectively deals with again the answers to sustainable development leading to a world in which an increasing number of people are able to lead decent lives for many generations to come.

According to the author, there are two sides to sustainable development:

- a) A decent life for an ever-increasing part of the population
- b) This decent society sustained for a lengthy period.

In Section 1.5 the definition of sustainable development is dealt with. There is one definition that most people do consider authoritative. It dates back to 1987 and was devised by a commission set up by the United Nations , the World Commission on Environment and Development(WCED).The body is generally referred to by the name of its Chairwoman , Gro Harlem Brundtland(at that time Prime Minister of Norway), as the Brundtland Commission[2]. It

defined sustainable development as a development as a development that ‘meets the needs of the present without compromising the ability of future generations to meet their own needs’.

In Section 1.6 the concept of Triple P(people, planet and profit) are taken into account. In the previous sections, three cases covered all relate to sustainable development – rivers, golden rice and shortage of space. According to the authors, they share the common ground. One such match is the environment. A second common theme is that of people. There is a third match between the cases , the economic interest involved and the prosperity of the people-the financial system.

Chapter 2 deals with flaws in the fabric with relation to people and nature. The author elucidates overexploitation with its gigantic footprint , clean water for mankind , excessive efficiency in agriculture and livestock farming and consequences for the natural environment.

Chapter 3 deals with flaws in the fabric with relation to people and society. The following are highlighted:

- a) The people, planet and profit imbalance.
- b) Inequality and the lack of solidarity
- c) Dehumanisation – alienation and exclusion
- d) The lack of safety –terror, war , dictatorship
- e) The fabric of man, nature and the economy.

The distressing scenario of child labour is just one of the many global flaws in the relationship between humanity and the economy. This chapter goes into the depths of these flaws in the fabric, and examines what these mean for people in various countries- both far from and near to home.

In Chapter 4 , sources of vigour are elucidated in details. The following topics are discussed with respect to sustainable development :

- a) International organizations
- b) Ideas and sources of inspiration
- c) People
- d) Nature
- e) Science and Technology
- f) Business
- g) Students
- h) Cooperation

In ideas and sources of inspiration, the author elucidates one of the fundamental values behind sustainable development – the feeling of solidarity, solidarity between people and also solidarity between people and natural environment. Scientific insights contribute to the profound shift in

values towards this feeling of solidarity. A deeper knowledge with respect to ecosystems and complex interactions of all their components-including humans-makes it clear that in an objective sense human beings have much stronger ties to our natural environment than was previously realized.

The author in this chapter deals lucidly with the twelve goals of sustainable development. Through a wide range of cooperating partners and networks, it is possible to work effectively towards a sustainable future. This collection of requirements – the twelve pillars of sustainable development can tell the readers which scientific, technological, economic , political, legal and social innovations to be targeted.

Part II of the book elucidates solution strategies- the opposing sources of vigour and the oppurtunities they create. The relationships between them were unearthed and they culminated in twelve requirements that sustainable development will have to fulfill. In broad terms, this means the SWOT analysis (strengths, weaknesses, oppurtunities and threats) has been completed.

Chapter 5 highlights China's growth disregarding human rights and India's vision towards high-tech revolution disregarding rural vision and poverty.

China demonstrates power to rise. From a poor nation in World War II , they have transformed their vision towards market economy. But the question of the poorer sections of the society remains- the disadvantaged sections of China's society.

India, along with China , is one of the BRIC nations(Brazil, Russia, India and China), four rapidly growing economies. And just like China, India also has a history stretching back thousands of years, with complex cities holding up to 30,000 inhabitants already existing in 3000BC. But that is more or less where any similarities with China end. The origin of caste system characterizes India . The complex caste system is deeply rooted in Hinduism , which is the largest religion in India. The caste system deeply rooted in Hindu social fabric gives a negative image to India's prosperity and to India's successful economic advancement.[3]

In the twentieth century India strived for independence , under the inspired leadership of Mohandas Gandhi, who placed pressure on the colonial power using a strategy of complete non-violence(ahimsa: a term expressing a combination of non-violence and respect for all living things). The non-violent campaign for independence created such an impression on public opinion in Europe that the United Kingdom felt compelled to grant India independence in 1947.

Child labour is rife across the nation. Many of them are debt slaves- they may not be slaves in an official sense but they are not free to leave when they want , as their wages have been paid in advance to their parents, sometimes years in advance. Another source of issue is caste system. The caste system in India may no longer exist by law, but that has not meant that much has changed in practice. In the question of sustainable development, society and mankind has an unbilical cord.

Chapter 6 deals with the subject of unequal distribution of prosperity which not only exists between people occupying different regions of the planet , but could also be considered to exist between the people of today and the future generations- i.e. between now and later. The author elucidates the fact that ruthless exploitation of the natural environment and the exhaustion of non-renewable mean that mankind may face with a situation in which future generations would not be able to fulfill their own needs.

Chapter 7 elucidates climate and energy.[4] The phenomenon of rising temperatures , the greenhouse effect, the consequences from rising sea levels to failed crops and the possible solutions with regards to technology and lifestyle. Climate change is caused by the greenhouse effect, which has been a factor on this planet , in the form of a natural greenhouse effect, for billions of years , long before humans existed.

Chapter 8 delineates sustainable business practices. The topics discussed in this chapter are corporate social responsibility, corporate governance, sustainable products and services, future-oriented entrepreneurship and also dealt with the sustainably competent professional.

Each case study elucidates these facts. The author touches upon corporate social responsibility(CSR) . There are many organizations whose raison d'etre in their mission and corporate mission is CSR.

There is no reason to think that it provides a burden to the readers. It reaches to a broad domain of our society. Every chapter unfolds itself with a greater and stronger vision. The ideas in this book are challenging and far-reaching.

3.0 Vision behind sustainable development:

The question of sustainable development is unending and broad. The civilization is gearing for it as being the only solution to a better future. This book gives an in-depth insight to the varied answers to futuristic sustainable development and successful environmental and energy sustainability.[5] It carries with itself an unending stream of examples of sustainable development. The vision of a common man and that of a scientist is widened as the reader moves through each chapter of the book. Its readership quality is extremely successful and instinctive.

4.0 Future conclusion and future flow of thoughts:

Man's vision is versatile and visionary. The answers to sustainable development has just undergone in our present day life. Natural disasters have an umbilical cord with sustainable development. Sustainable development will be successful if the questions of natural catastrophes are answered.[6],[7],[8],[9] Energy and environmental sustainability are the two cornerstones of sustainable development. The future of civilization is bright if mankind takes a strong and encouraging step towards successful sustainable development with active participation from civil

society, stake holders and government. Successful sustainable development will then never be a distant reality.

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