



SUSTAINABLE DEVELOPMENT-AN OVERVIEW

Biological Science

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ABSTRACT

The concept of Sustainable development was most discussed approach in all field since last four decades. The term penetrate in all sphere of the development from research to way of living. All the activities of human development have direct or indirect inclusion of sustainable. Therefore, the concept and terminology need to understand by everyone.

KEYWORDS

INTRODUCTION

At the start of the twenty-first century, the problem of global sustainability is widely recognised by world leaders, and a common topic of discussion by journalists, scientists, teachers, students and citizens in many parts of the world. The World Summit on Sustainable Development (WSSD, 2002) confirmed that the first decade of the new century, at least, would be one of reflection about the demands placed by humankind on the biosphere.

The idea of sustainability dates back more than 30 years, to the new mandate adopted by IUCN in 19693. It was a key theme of the United Nations Conference on the Human Environment in Stockholm in 19724. The concept was coined explicitly to suggest that it was possible to achieve economic growth and industrialization without environmental damage. In the ensuing decades, mainstream sustainable development thinking was progressively developed through the World Conservation Strategy (1980) , The Brundtland Report (1987), and the United Nations Conference on Environment and Development in Rio (1992), as well as in national government planning and wider engagement from business leaders and non-governmental organisations of all kinds.

What is sustainable development

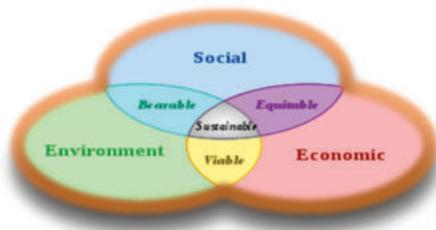
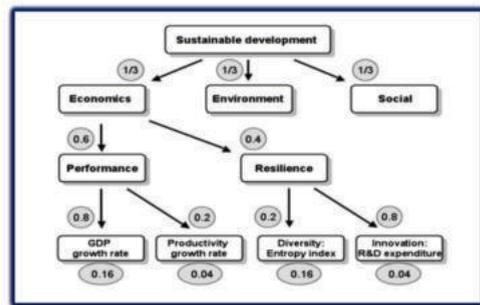


Figure-shows that Sustainable development ties together concern for the carrying capacity of natural systems with the social challenges facing humanity.

Figure is an example of a tree diagram of this kind where the concept of sustainable development is broken down into three dimensions corresponding to the famous: Economic, Social and Environmental pillars. Only the Economic branch is further developed, with two constituting dimensions, Performance and Resilience. Performance is evaluated with the help of two indicators: two growth rates (GDP and Productivity). The Resilience sub-branch also gives rise to two dimensions: Diversity and Innovation. The cascading weighting

process is illustrated by the final weight of each indicator, which is the product of all the previous weights and its own. Thus the GDP growth rate is given a 0.16 weighting, i.e. the product of its own specific weight 0.8, of the 0.6 weight of the "Performance" branch, and the 0.33 weight of the "Economics" branch.



Environment sustainability

Consumption of renewable resources	State of environment	Sustainability
More than nature's ability to replenish	Environmental degradation	Not sustainable
Equal to nature's ability to replenish	Environmental equilibrium	Steady state economy
Less than nature's ability to replenish	Environmental renewal	Environmentally sustainable

Natural resources occur naturally within environments that exist relatively undisturbed by mankind, in a natural form. A natural resource is often characterized by amounts of biodiversity and geodiversity existent in various ecosystems.

On the basis of renewability

Renewable resources are ones that can be replenished naturally.e.g sunlight, air, wind. Non-renewable resources are resources that form extremely slowly and those that do not naturally form in the environment. e.g fossil fuels, minerals

Why sustainable development of natural resources necessary?

We cannot go backward to our infinite resources nor can we continue with business as usual.

Economic Sustainability

It emphasized the interlinkages between economic development, environmental degradation, and population pressure instead of three objectives.

Three types of capital in sustainable development The sustainable development debate is based on the assumption that societies need to manage three types of capital (economic, social, and natural), which may be non-substitutable and whose consumption might be irreversible

Sustainable Agriculture

Environmentally friendly methods of farming that allow the production of crops or livestock without damage to the farm as an

ecosystem. Apart from this, it also prevents the adverse effects on soil, water supplies, Biodiversity, or other surrounding natural resources.

The elements of Sustainable Agriculture

1. Agroforestry:-Agroforestry is a collective name for land use systems and practices in which woody perennials are deliberately integrated with crops and/or animals on the same land management unit.
2. Mixed farming:-The best known form of mixing occurs probably where crop residues are used to feed the animals and the excreta from animals are used as nutrients for the crop.
3. Multiple cropping:-growing two or more crops in the same piece of land, during the same season is called Multiple Cropping
4. Crop rotation:- The growing of two or more dissimilar or unrelated crops in the same piece of land in different seasons .

The velocity of environmental change is fast, and increasing. As Peter Vitousek and colleagues comment, tellingly, 'we are changing the earth more rapidly than we are understanding it'²¹. Rates of human transformation of the earth are increasing, particularly in countries undergoing rapid industrialization or de-industrialisation. concurrence of disasters in 2005 and 2006 (numerous hurricanes and tropical storms, earthquakes, flooding, famine) has concentrated the minds of Western media pundits on the shared fate of humanity. Some of these disasters (especially storminess and flooding) are connected in popular Accounts to issues such as climate change. The parallel nature of environmental and humanitarian issues is thus clear to many people.

There is therefore, in the first decades of the twenty-first century, a powerful opportunity to start a new debate about development, economy, equity and environment. This must address both the human needs and aspirations of the poor of developing world, and the over-consumption in the industrialised world.

The biosphere is not infinite. As Edward Wilson observes, 'the biosphere, all organisms combined, makes up only one part in ten billion of the earth's mass. It is sparsely distributed through a kilometre-thick layer of soil, water and air stretched over a half billion square kilometres of the surface'

The diversity of life is fundamental to human wellbeing. The concept of nature has great strength, because it combines both a conventional conservation concern for species and ecosystems (biodiversity) and the diverse ways in which species and ecosystems have value (aesthetic, cultural and spiritual values as well as more directly material values, and the Millennium Ecological Assessment recognised).

CONCLUSION.

The sustainable development is a holistic approach for saving of the universe and human have a wide role to achieve it. The resources on the earth should be judiciously utilized to save for future generation. The diversity need to be preserve as much as possible because all the puzzles of adversity are hidden in it. The sustainable development concept is not for profess but everyone should follow in day to day life. The design of 17-SDG (Sustainable Development Goals) is also an outcomes of the this concept.

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