THE USE OF SUSTAINABLE RESOURCES

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ABSTRACT

The present paper is about "sustainable use of natural resources".resources are the backbone of every economy.Human sustainability interfaces with economies through the voluntary trade consequences of economic activity.Moving towards sustainability (or applied sustainability) while keeping the quality of life high is a social challenge that entails,among other factors,international and national law,urban planning and transport,local and individual lifestyles and ethical consumerism.Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.But sustainability is also a call to action, a task in progress or "journey".

And therefore a political process, so some definitions set out common goals and values.The earth charter speaks of "a sustainable global society founded on respect for nature,universal human rights,economic justice,and a culture of peace."To add complication the word sustainability is applied not only to human sustainability on earth,but to many situations and contexts over many scales of space and time,from small local ones to the global balance of production and consumption.It implies responsible and proactive social,environmental ,and economic growth to ensure a desirable planet for all species now and in the future.It can also just refer to a future intention ."sustainable agriculture" is not necessary a current situation but a goal for the future,a prediction .Careful resource management can be applied at many scales,from economic sectors like agriculture,manufacturing and industry, to work organizations,the consumption patterns of households and individuals and to theresource demands of individual goods and services.

KEYWORDS: sustainability,lifestyle,economicjustice,development,environment,individual.

INTRODUCTION

The Word Sustainability is derived from the Latin word (tenere, to hold; sus, up). Dictionaries provide more than ten meanings for sustain, the main ones being to "maintain", "support", or "endure". However, since the 1980s sustainability has been used more in the sense of human sustainability on planet Earth and this has resulted in the most widely quoted definition of sustainability as a part of the concept "sustainable development", that of the Brundtland commission of the United Nations of March 20, 1987: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Resources are the Backbone of every economy. In using resources and transforming them, capital stocks are built up which add to the wealth of present and future generations. However, the dimensions of our current resource use are such that the chances of future generations and the developing countries – to have access to their fair share of scarce resources are endangered. More ever, the consequences of our resources use in terms of impact on the environment may induce serious damages that go beyond the carrying capacity of the environment.

The history of sustainability traces human-dominated ecological systems from the earliest civilization to the present. This history is characterized by the increased regional success of a particular society, followed by crises that were either resolved, produced sustainability, or not, leading to decline. In early human history, the use of fire and desire, urge for specific foods may have altered the natural composition of plant and animal communities. Between 8,000 and 10,000 years ago, "Agrarian" Communities emerged which depended largely on their environment and the creation of a "structure of permanence."

The Western Industrial revolution of the 18th & 19th centuries tapped into the vast growth potential energy in fossil fuels. Coal was used to power ever more efficient engines and later to generate electricity. Modern Sanitation systems and advances in medicine protected large populations from diseases. In the mid-20th century, a gathering environmental movement pointed out that there were environmental costs associated with the many materials benefits that were now being enjoyed. In the late 20th century, environmental problems became global in scale. The 1973 and 1979 energy crisis demonstrated the extent to which the global community had become dependent on non-renewable energy resources.

CONCEPTUALISATION

Sustainability is increasingly viewed as a desired goal of development and environmental management. This term has been used in numerous desciplines and in a variety of context ranging from the concept of maximum sustainable yield in forestry fisheries management to the vision of a sustainable society with a study state economy. The philosophical and analytic framework of sustainability draws on and connects with many different disciplines and fields; in recent years an area that has come to be called sustainability science has emerged. Sustainability science is not yet an autonomous field or discipline of its own, and has tended to be problem – driven and oriented towards guiding decision-making.

What is Sustainability?

Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which human and nature can exists in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.

Sustainability is important to making sure that we have and will continue to have, the water, materials and resources to protect human health and our environment. Sustainability has emerged as a result of significant concerns about the unintended social, environmental, and economic consequences of our natural resources.

- Society
- Economy
- In crisis ---Environment

Some of Today's Environmental problems:

- Overfishing
- Deforesting
- Soil Erosion
- Pollution : Air & Water
- Over population
- Climate change.

GOAL : For the Earth to survive as a planet where humans can live, the peoples of the earth today must make difficult personal and societal choices such that population growth and demands upon the environment for energy, water and other resources are managed in a way that preserves the world's ecosystems.

Sustainability had many definitions. One way to think of it is "meeting the needs of the present without compromising the ability of future generations to meet their needs." "In its broadest scope, sustainability refers to the ability of a society, ecosystem, or any such on-going system to continue functioning into the indefinite future without being forced into decline through the exhaustion or overloading of key resources on which that system depends." – Robert Gilman, President of Context Institute.

Considering the fact that the population is exponentially increasing in 3rd world underdeveloped nations, without any end in sight, and the fact that current rates of consumption are bound to increase exponentially with increased population, and development in these countries, sustainability is nothing but a pipe dream. It is Alice in Wonderland, Disneyland and a completely absurd concept. Why then are every environmental organization, the UN and most government agencies spending billions of our tax dollars chasing this absurdity? They can, we allow them to do so.

REVIEW LITERATURE

Sustainability is studies and managed over many scales (levels or frames of reference) of time and space and in many contexts of environmental, social and economic organization. The focus ranges from the total carrying capacity (sustainability) of plant Earth to the sustainability of economic sectors, ecosystems, countries, municipalities, neighbourhoods, home gardens, individual lives, individual goods and services, occupations, lifestyles, behavior patterns and so on. In short, it can entail the full compass of biological and human activity or any part of it. As Daniel Botkin, author and environmentalist, has stated : "We see a landscape that is always in flux, changing over many scaled of time and space.

At the 2005 World summit on social Development it was noted that this requires the reconciliation of environmental, social equity and economic demands – the "there pillars" of sustainability or {the 3E's}. This view has been expressed as an illustration using three overlapping ellipses indicating that the three pillars of sustainability are not mutually exclusive and can be mutually reinforcing. The three pillars – or the "triple bottom line" – have served as a common ground for numerous sustainability standards , standards and certification systems in recent years, in particular in the food industry. Standards which today explicity refer to the triple bottom line include Rainforest Alliance, Fairtrade and UTZ certified. The triple bottom line is also recognized by the ISEAL Alliance – the global association for social and environmental standards.

Ecological economist Herman Daly has asked, "what use is a sawmill without a forest?" From this perspective, the economy is a susbsystem of human society, which is itself a subsystem of the biosphere, and a gain in one sector is a loss from another. This can be illustrated as three concentric circles. A Universally accepted definition of sustainability remains elusive because it is often linked with other concepts such as "sustainable development" or "sustainable agriculture". On the one hand it needs to be factual and scientific, a clear statement of a specific "destination". In simple definition "sustainability is improving the quality of human life while living within the carrying capacity of supporting eco-system", though vague, conveys the idea of sustainability having quantifiable limits.

CONSUMPTION – POPULATION, TECHOLOGY, RESOURCES :

A major driver of human impact on Earth system is the destruction of biophysical resources, and especially, the Earth's ecosystems. The environmental impact of a community or of humankind as a whole depends both on population and impact per person, which in turn depends in complex ways on what resources are being used, whether or not those resources are relative to the carrying capacity of the ecosystems involved.

One of the initial attempts to express human impact mathematically was developed in the 1970s and is called the 1 PAT formula. This formulation attempts to explain human consumption in terms of 3 components : Population numbers, levels of consumption and impact per unit of resource use. The equation is expressed :

$$1 = P \times A \times T$$

Where : 1 = Environmental impact, P = Population, A = Affluence, T = Technology.

World population growth rate, 1950-2050, as estimated in 2011 by the U.S. census Bureau, International Data Base. According to the 2008 Revision of the official United Nations Population estimate and projections, the World population is projected to reach 7 billion early in 2012, up from the current 6.9 billion (May 2009), to exceed 9 billion people by 2050. Most of the increase will be in developing countries whose population suggest a peak at around 2070 of nine to ten billion people, and then a slow decrease to 8.4 billion by 2100. Emerging economies like those of China and India aspire to the living standards of the western world as does the non-industrialized world in general. It is the combination of population increase in the developing world and unsustainable consumption levels in the developed world that poses a stark challenge to sustainability.

THEMATIC STRATEGY ON THE SUSTAINABLE USE OF NATURAL RESOURCES :

On 21st December 2005 the European Commission proposed a strategy on the sustainable use of Natural Resources used in Europe. The objective of the strategy is to reduce the environmental impacts associated with resource use and to do so in a growing economy. Focusing on the environmental impacts of resource use will be a decisive factor in helping the EU achieve sustainable development . The objective can be described as : " ensuring that the consumption of resources and their associated impacts do not exceed the carrying capacity of the environment and breaking the linkages between economic growth and resource use". Some initiatives finds its origin in the strategy on the sustainable use of natural resources. The panel aims to provide scientific evidence to underpin the delivery of policies on resource efficiency.

Sustainability is the capacity to endure through renewal, maintenance and sustenance, or nourishment, in contrast to durability, the capacity to endure through unchanging resistance to change. For humans in social system or ecosystems. Sustainability is the long-term maintenance of responsibility, which has environmental, economic and social dimensions and encompasses the concept of stewardship, the responsible management of resource use. In ecology sustainability describes how biological system remain diverse, robust and productive over time, a necessary precondition for the well-being of humans and other organism. Long-lived and healthy wetlands and forests are examples of sustainable biological systems.

Robust, diverse, productive ecosystems and environments provide vital resources and processes known as " ecosystem services". There are two major ways of managing human impact on ecosystem services. One approach is environmental management; this approach is based largely on information gained from educated professionals in earth science, environmental science and conservation biology. Another approach is management of consumption of resources, which is based largely on information gained from educated professionals in economics.

MANAGEMENT OF HUMAN CONSUMPTION :

The underlying driver of direct human impacts on the environment is human consumption. This impact is reduced by not only consuming ;use but by also making the full cycle of production, use and disposal more sustainable. Consumption of goods and services can be analysed and managed at all scales through the chain of consumption, starting with the effects of individuals lifestyle choices and spending patterns, through to the resource demand of specific goods and services, the impacts of economic sectors through national economies to the global economy. The idea of embodied resource use, resource intensity and resource productivity are important tools for understanding the impacts of consumption. Key resource categories relating to human needs are food, energy, materials and want.

In 2010, the International Resource panel, hosted by the United Nations Environment programme (UNEP), published the first global scientific assessment on the impacts of consumption and production and identified priority actions for developed and developing countries. The study found that the most critical impacts are related to ecosystem health, human and resource depletion. From a productive perspective, if found that fossil-fuel combusting processes, agriculture and fisheries have the most important impacts. Meanwhile, from a final consumption perspective, it found that household consumption related to mobility, shelter, food and energy – using products cause the majority of life-cycle impacts of consumption.

Flow of CO_2 in an ecosystem : The sun energy, stored by plants during photosyntheses, passes through the food chain to other organisms to ultimately power all livinf process. Reduction of current CO_2 levels must be achieved against a background of global population.

Water resources : Water security and food security are inextricably linked. In the decade 1951-60 human water withdrawals were four times greater than the previous decade. This rapid increase resulted from scientific and technological developments impacting through the economy – especially the increase in irrigated land, growth in industrial and power sectors and intensive dam construction on all continents.

Food security : The American Public Health Association (APHA) defines a "sustainable food system" "One that provides healthy food to meet current food needs while maintaining healthy ecosystem that can also provide food for generations to come with minimal negative impact to the environment.

A Sustainable food system also encourages local production and distribution infrastructures and makes nutritious food available, accessible and affordable to all. Further, it is humane and just, protecting farmers and other workers, consumers and communities. Sustainable seafood from either fished or farmed sources that can maintain or increase production in the future without jeopardlzing the ecosystems from which it was acquired. The sustainable seafood movement has gained momentum as more people become aware about both overfishing and environmentally destructive fishing methods.

Sustainability concerns the specification of a set of actions to be taken by present that will not diminish the prospects of future persons to enjoy levels of consumption, wealth, utility or welfare comparable to those enjoyed by present persons. Sustainability interfaces with economics through the social and ecological consequences of economic activity. Sustainability economics represents : " .... a broad interpretation of ecological economics where environmental and ecological variables and issues are basic but part of a multidimensional perspective. Social, cultural, health-related and monetary/financial aspects have to be integrated into the analysis. The challenge for sustainability is to curb and manage western consumption while raising the standard of living of the developing world without increasing its resource use and environmental impact. This must be done by using strategies and technology that break the link between, on the one hand, economic growth and on the other, environmental damage and resource depletion.

A recent UNEP report proposes a green economy defined as one that "Improves human well-being and social equity, while significantly reducing environmental risks and ecological scarcities" : it "does not favour one political perspective over another but works to minimize excessive depletion of natural capital". The report makes three key findings: "that greening not only generates increases in wealth, in particular a gain in ecological commons or natural capital, but also (over a period of six years) produces a higher rate of GDP growth" : that there is "an inextricable link between poverty eradication and better maintainenance and conversation of the ecological commons, arising from the benefit flows from natural capital that are received directly by the poor"; "in the transition to a green economy, new jobs are created, which in time exceed the losses in "brown economy" job. However, there is a period of job losses in transition, which requires investment in re-skilling and re-reducating the workforce.

CONCLUSION: The concept of sustainability is much broader than the concepts of sustained yield of welfare, resources or profit margins. At present, the average per capita a consumption of people in the developing world is sustainable but population numbers are increasing and individuals are aspriring to high-consumption western lifestyles. The developed world population is only increasing slightly but consumption levels are unsustainable. Several key areas have been targeted for economic analysis and reform : the environmental effects of unconstrained economics that takes greater account of the social and environmental consequences of market behavior.

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