

Environmental and social dimensions for sustainability of business, economics and finances

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Introduction

The human species, *Homo sapiens* has become the most intelligent and the most superior creature of the world due to its well-developed brain resulting in high intelligence. This high intelligence had helped him to generate knowledge and transfer it to the next generation. In any field, generation of knowledge is done through research. The findings of research are disseminated through various forms so that the present generations and future generations can use those for their wellbeing to make a better tomorrow. Today, in an era of knowledge based economy, research in the fields of Business, Management, Economics and Finance are of utmost importance to achieve sustainable economic development. Sri Lanka, after a 30 year long secessionist internal war with a minority rebellion group is aiming at rapid economic development.

The aim of every person is to live in better life tomorrow than yesterday. In an era of “beyond the Millennium Development Goals”, the United Nations is emphasizing on continuous efforts to achieve prosperity, equity, freedom, dignity and peace for everybody. According to the UN, post-millennium development goals consultations have emphasized a global development agenda beyond 2015, where sustainable development is a key consideration (UN 2013).

What is sustainability?

The basic definition of sustainability is ability to maintain existence (Pernecky and Luck 2013). The term sustainability was first used to describe an economy in equilibrium with basic ecological supporting systems (Stivers 1976). Simply it is environmental, economic and social wellbeing for today and also for tomorrow (Stivers 1976). Business, economy, finance and management are directly associated with society and economy. However, for these to be sustainable, environmental

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aspects should also be considered. In industry and business, the importance of environment and resources is very much concerned today.

David Miliband, British Labour Party politician who was the Secretary of State for Environment, Food and Rural Affairs and also the Secretary of State for Foreign and Commonwealth Affairs in UK has once said that “In future, every industry should be an environmental industry. In a world where energy and carbon emissions are constrained, every business must take resource productivity seriously” (Quotes Corner 2015). Lee Scott, the CEO of Walmart has once said that “there is a simple rule about the environment. If there is waste or pollution, someone along the line pays for it” (Quotes Corner 2015). Phil Harding, Managing Editor of many websites once said that a sustainable business is resource efficient, respects environment and is a good neighbor (Quotes Corner 2015). Therefore, everybody should concentrate on industries and business that generate less waste and cause no or less pollution.

Sustainability is a multidisciplinary theme which encompasses three overlapping spheres, namely the economic, social and environmental (Fig. 1). Management and coordination of environmental, social and financial demands and concerns, in order to ensure responsible, ethical and ongoing success is sustainability (Vanderbilt University 2015)

In the Environmental Sphere, Natural Resource use, Environmental Management and pollution prevention are considered (Fig. 1). Business and industry should consider efficient use of resources. The main resources in this regard include water and energy. Although we do not feel, the world is facing a water scarcity. Oceans cover around 70% of the earth's surface and account for 97% of its water. Only 3% of all water on Earth is fresh water. However, most of this freshwater is locked away in the form of ice caps and glaciers located in the polar regions - perhaps not for much longer the way climate change is taking hold. Only about 1% of all water found on this planet is easily accessible for human use

Limitation of resources

By the year 2025, 48 countries will be affected by water stress or scarcity affecting around 35% of the population. In Sri Lanka there will be little water scarcity by 2025. However, we have to keep in mind that we should conserve our water. Even now many people in our country are facing water scarcities. Industries and business should also consider harvesting rain water and not polluting the available water.

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Not only the water, we all including industries and business must take care for not polluting the air and also the land. There are regulations regarding ambient air quality, soil conservation etc. Management of industries and business should ensure that these regulations are adhered to.

When energy is considered (Fig. 3), according to forecasted trends, energy consumption will increase until 2035, remain constant until 2045 and then will gradually decrease. When different energy sectors are considered, use of renewable energy, gas and coal will increase, use of oil and nuclear energy will remain more or less constant. Industries and business should also consider consuming less energy and using renewable energy as much as possible. Use of solar energy plays a significant role here. In addition research is underway to investigate the possibility of using wave energy too. Every effort should be taken to recycle waste. This can reduce the amount of waste disposed into the environment.

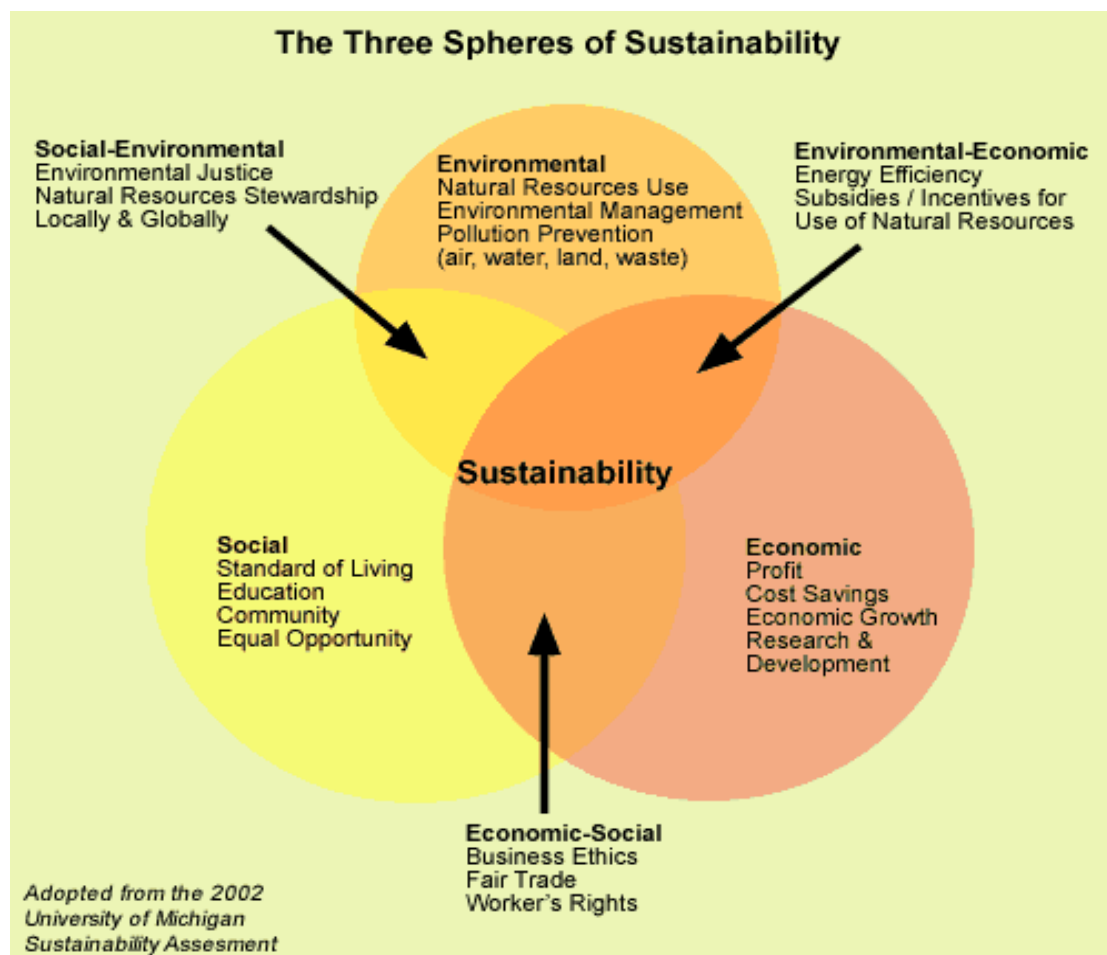


Figure 1: The three spheres of sustainability (Source: Vanderbilt University 2015)

Areas of physical and economic water scarcity

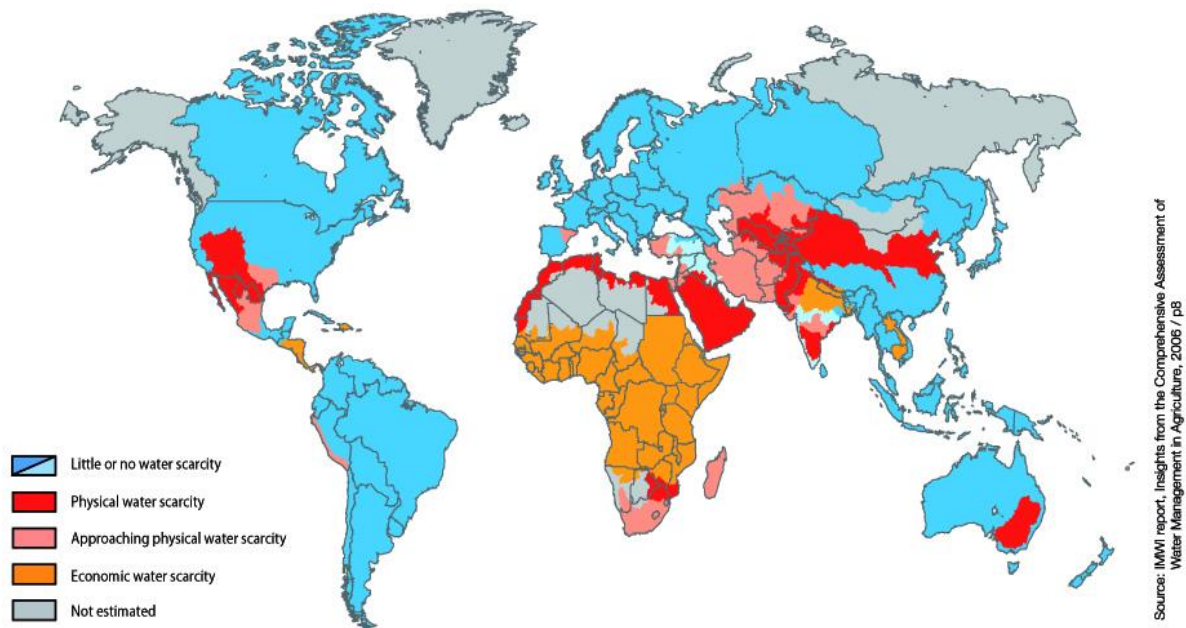


Figure 2: Water scarcity in 2015 (Source: WWF 2015)

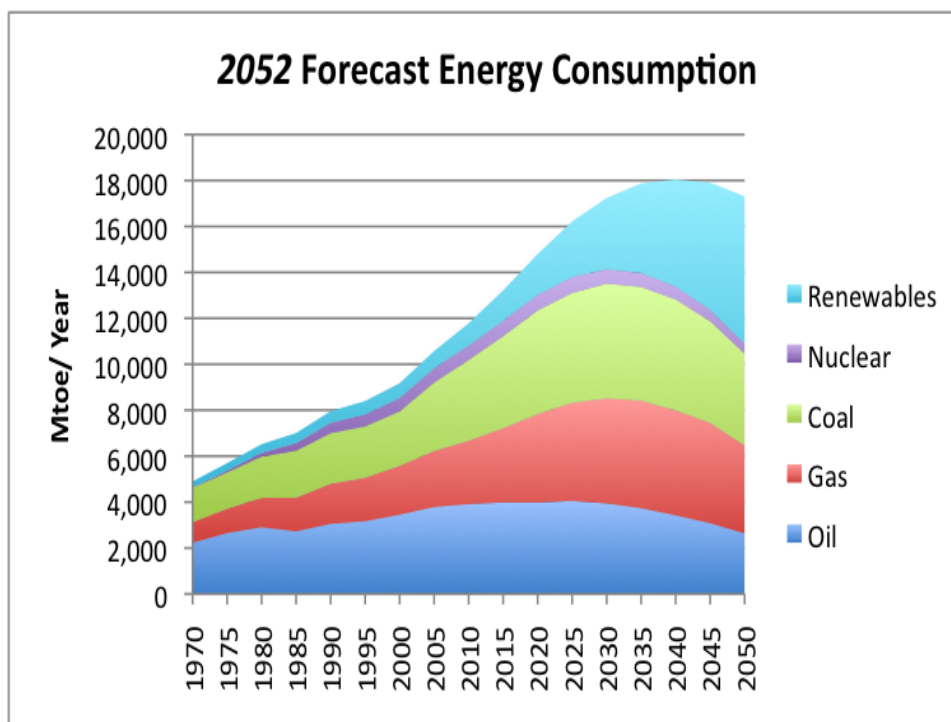


Figure 3: Forecast of energy consumption of the world (Source: ourfiniteworld 2015)

The way forward

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Recycling of resources is also important to reduce resource use. However, all resources are not recyclable. Example is petroleum fuel, coal etc. Therefore, reducing the usage of such resources is very important.

Economic sphere (Fig. 1) considers profits, cost savings, economic growth, efficiency and productivity. Research and development in these fields are necessary. But for sustainability, other spheres should also be considered.

In the Social sphere, for sustainability of business attention should be paid to the employees. These include their standards of living, education, safety and providing equal opportunities.

When these three spheres overlap for sustainability, there will be regions of Economic-Social, Social-environmental and Environmental-Economic.

The economic-social region includes business ethics, fair trade and workers' rights which are also very important for the sustainability of business and industry. Marketing and human resource management also play a vital role here.

The social-environmental region includes environmental justice and natural resources stewardship which is the responsible planning and management of natural resources.

Natural resources are gradually getting depleted (Fig. 4). From 1950s, the rate of depletion had been rapid. This rate will continue for few more years. But after that, probably with more attention towards sustainability and with more efficient management, the rate of depletion will be reduced.

The environmental-economic region includes energy efficiency and providing subsidies and incentives for the use of natural resources (Fig. 1). Use of energy efficient method such as LED bulbs, less energy consuming equipment will contribute to reduce the energy consumption especially the use of coal and petroleum fuel which contribute to the increase in carbon dioxide content in the atmosphere (Fig. 5). What happens due to increase in Carbon dioxide content? This will contribute for global warming (Fig. 6)

What happens due to global warming? Melting of ice caps in the polar regions. This will lead to sea level rise. Most of our coastal regions will be inundated by the sea. This will contribute to climate change. Rainfall pattern will be changed. Some regions will become dry etc. With conservation of

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energy, all of us as individuals, our industries and business enterprises can contribute to minimize the emission of Carbon dioxide and therefore to reduce global warming.

So now every industry is very much concerned about their Carbon footprint. That is the amount of Carbon Dioxide released in to the atmosphere during their entire production line. Every effort should be taken to reduce the carbon footprint.

Therefore Sustainability concept should be integrated with our business. Green dimensions should be considered in Economics, Finance, Business and Management.

Paul Hawken, an environmentalist, entrepreneur and an author once said that “We have an economy where it is cheaper to destroy earth in real time rather than renew, restore and sustain it. Money can be printed to bail out a bank but life cannot be printed to bail out planet” (Quotes Corner 2015).

State of the World

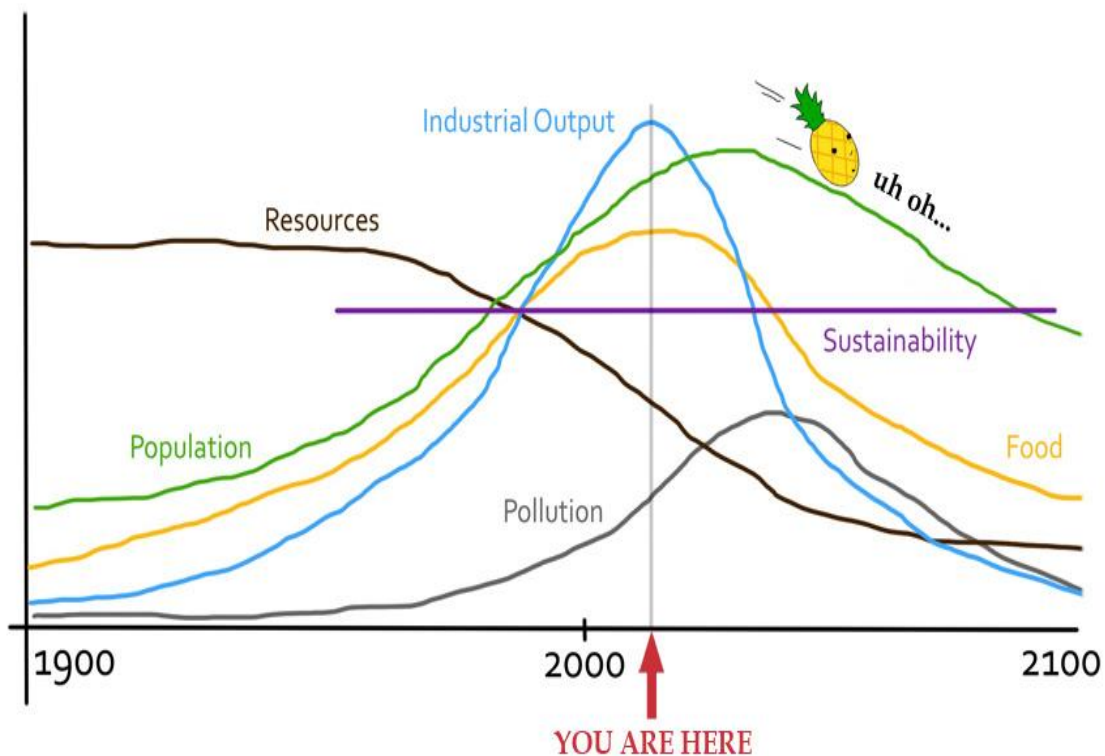


Figure 4: Forecasted changes in the state of world (Source: Pineappleofprovocation 2015)

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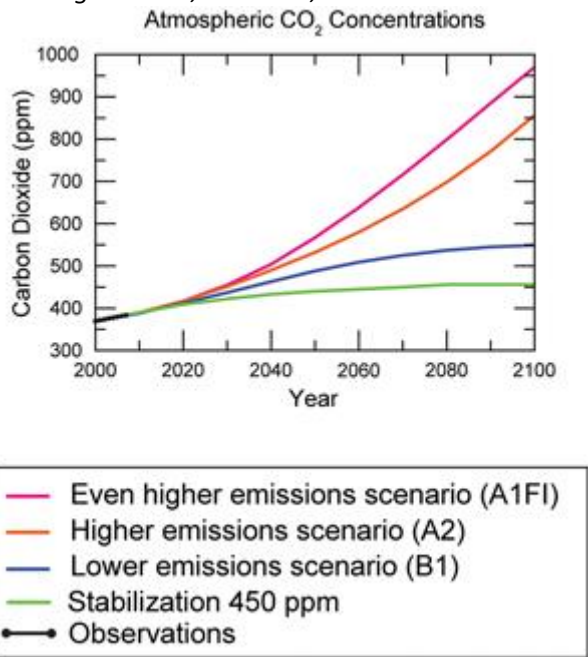


Figure 5: Forecasted trends in carbon dioxide emissions of the world (Source: EPA 2015)

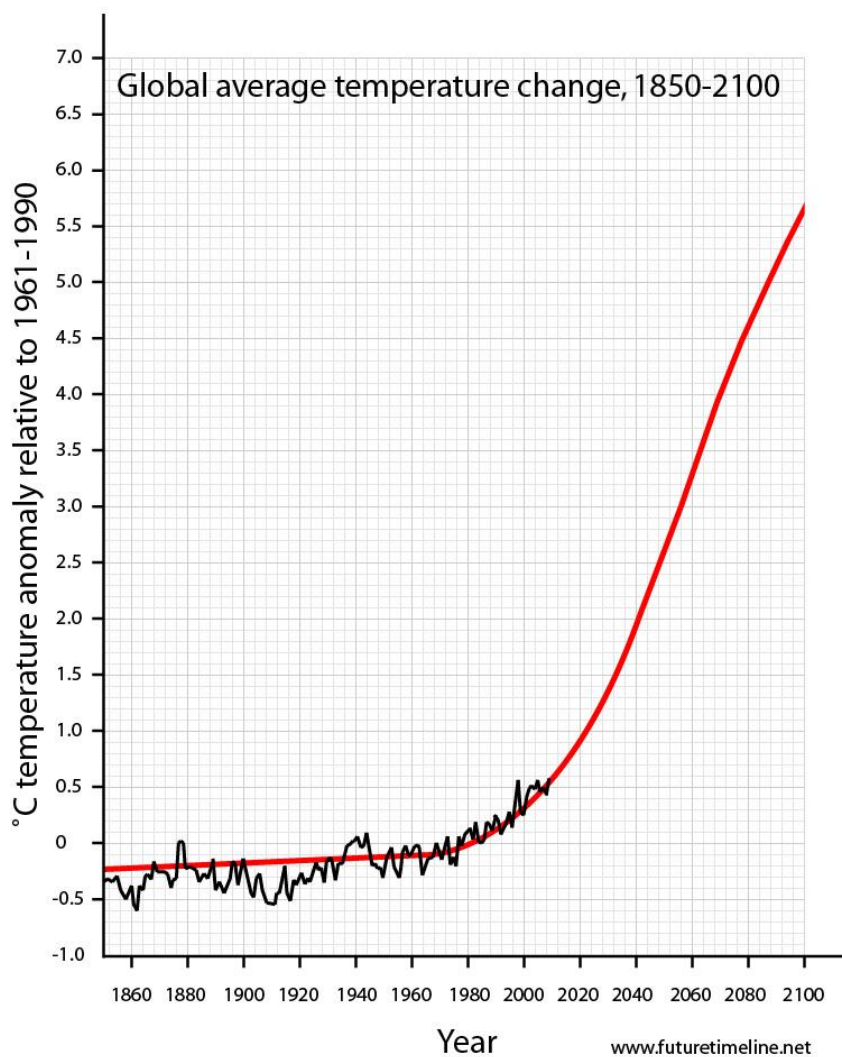


Figure 6: Forecasted trends in global warming (Source: Futuretimeline 2015)

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