

Global Warming: Global warning for local actions

Abdul Malek

School of Housing, Building & Planning, Universiti Sains Malaysia. Minden, 11800, Penang, Malaysia

Abstract. After decades of global warming many are still in the dark as what needs to be done to overcome this world threat that affects single citizen of the planet earth. The word 'sustainability' has been used very loosely, some not knowing the exact meaning of it only with intentions to gain research grant for the academics, profit making by keeping by the general business environment, thus leading to dumping the market with green-washing products. Those who seriously know the true meaning are not many and many times frustrated with the doings of the many which do not. This presentation hopefully provide some useful insights as to what sustainability means and for the necessary green initiatives that need to be taken to reduce further aggravation of the borderless geographical environment. Future growth in all countries are converging into a common trend and therefore efforts need to be in tandem and synchronized for a more effective win against this pervasive war of the world. Most tangible efforts are normally easily observed in the socio economic trend that affects the built environment of individual countries. The common cues of the world are that it is getting hot, flat and crowded and to overcome this force is no easy task for any nation since the rhythm and tempo of growth of each nation differs. But one thing is common, that the rate of urbanization is rapid throughout the world. It was reported that by about 2030 the land-use for urbanization will be about 75% all over the world and so a relook at the socio economic policies must be geared towards how urbanization do not worsen the already bad situation from global warming.

Keywords: global warming, sustainability, urbanization

The words 'sustainability' and 'green' have different meaning to many people. Normally they would relate to their own vocations and claimed sustainability. Majority would subscribe to the preservation of the natural ecology and conservation of what is existing. Most emphasizes on the *natural environment* because it is easier to comprehend activities that advocate for the need of the natural environment. The World Wildlife Foundation provides an exhaustive list of endangered species all over the world to conserve the population of the listed species. 'Endangered' means that any wilful poaching of these listed animals for economic and profit-making activities are considered strictly illegal and mandatory be imprisoned.

Man was and still is seen as the cause of the climate change that causes the phenomenon global warming. Often times the media would report cases of deterioration of the natural environment. Scientists in Alaska are saddened by the dying of hectares and hectares of pine trees at the Tundra region in the remote areas of Alaska caused by the shortened metamorphosis of a type of insect known as the *boll weevil* that eats up the leaves of the pine trees. Thus the natural function of carbon dioxide uptake by the leaves is missing leaving a huge amount of carbon dioxide content in the atmosphere. Glaciers and the polar caps, especially the Arctic polar cap is melting down rapidly not only raising the sea level but also absorb heat from the sun due to its dark colour nature as compared to the white ice caps. There is one lake that due to the warm water cause a chemical reaction that gives out continuous methane gas to the atmosphere. One to one, methane gas is more potent than carbon dioxide but although this happens only in Alaska and from this lake, the continuous emission of this gas 24/7 over a long period, is a cause for concern. There are

many examples to proof that man has been the culprit in gradually destroying the natural environment. This is inevitable as man needs to live comfortably. Living comfortably means having to clear virgin jungles for human settlement. Years ago the temperature of the earth has been, though fluctuating, constantly in a horizontal manner but there has been indications that the temperature graph has been slowly rising until sometime in 2000 the rise is abruptly rising almost towards vertical. This is an indication that development for human living has been shown not to be sustainable and a liability on the natural environment.

Man has to live in the environment that is opposite of the natural environment and this is known as the *built environment*. It has been found out that due to the fast pace of technology and rapid population growth that the pace of environmental disasters has also increase. According to Theodore L. Friedman (2008), an international journalist, who discovered that the world is getting hot, flat and crowded and during his travels he exposes several undisputed indications of these three synchronize occurrences and warned that if nothing is done to reverse the situation the world would destroy itself and the human species. Thus the human beings are now becoming the endangered species. Unfortunately many scientists are busily engrossing themselves into saving the natural environment but their everyday living does not reflect the habits that need to be changed to save the natural habitat. Being in the built environment to do their researches that produce toxic gas from the machines in the laboratories, their daily commuting to and fro home and office emitting carbon dioxide from vehicles, switching air-conditioning 24 hours so as not to destroy chemicals in laboratories and many other everyday habits are contributing towards the gradual deterioration of the natural environment.

The Earth is getting hot due to the technology that man brilliantly devised for human convenience that also led to healthy living with population growth with low death rate. Presently counted as 6.8 billion in this decade and at the rate it is growing it has been predicted to be as high as 9 billion by 2050 (World Energy Outlook, 2010). By this time the melting down of glaciers and ice caps would have reached a critical level and hence reduced land area due to sea level rising. Land then becomes an economic item to be guarded jealously by all. Those who previously live in the vicinity of seashores would seek whatever available land inland. Land prices would escalate and may probably cause friction among nations that may lead to wars. Ideologies do not case war any longer but land aggrandizement may. There would then be other related depravities when resources become scare such as land bank, food security, living spaces and political boundaries, etc.

So the thought of the Earth being hot, flat and crowded means scientist and researchers should be doing research to counteract the global warming phenomenon so as to pull down the vertical graph line back to original 2005 horizontal graph line. The year 2005 has been used as a benchmark by the International Panel for Climate Change for countries in the world to do something positive within the realms of their countries abilities. Researches in the natural environment are already aplenty but researches in the built environment are still far behind. Such researches involving in energy efficiency, indoor environmental quality, building site planning & maintenance, material and resources and water resources are common criteria in many countries when sustainability is required in the built environment. These are the criteria that are commonly found in all green rating tools of many major countries like the USA uses Leadership in Energy Efficient Development (LEED), British Research Establishment Environmental Assessment Method (BREEAM) for the United Kingdom, Greenstar (Australia), Greenmark (Singapore), Green Building Index (Malaysia) (www.greenbuildingindex.org) and many more and the latest to be on board of all the green rating tools is the Greenship from Indonesia.

Transportation is part and parcel of the urban living scenario and many countries are gradually introducing the hybrid cars for energy efficient vehicles that saves the environment by either using an all-out electric car or the hybrid that combines electricity

and bio fuel. For now Thai Airways is the only airlines that use biofuel for its planes. Toyota and Honda have been rigorously exporting their hybrids to many countries including countries that traditionally produce cars like Sweden, and also to other countries like New Zealand, Australia, Malaysia, Thailand etc. In transportation there are other modes apart from having individual cars like encouraging the population to use efficient public transport for example buses, light rail transits and taxi cabs.

The transportation is one item to think about but buildings have been reported to consume at least average about 35% to total energy consumption for most countries and at the moment this energy comes from burning the fossil fuels that contributes to the high content of CO₂ in the atmosphere (World Development Indicators, 2009). The built environment is now becoming of grave concern because the trend all over the world is towards living in the urban areas. It was reported that at least 75% of people would be living in urban areas and urbanization is tsunami that is difficult to counteract. Whether scientists like it or not, those living in the urban areas and do research for the natural environment would help to be conscious of where their time is spent and assess their carbon footprint.

References

1. Friedman, T.L. (2008), *Hot, Flat and Crowded*, Allen Lane Penguin Books, London, UK.
2. International Energy Agency (IEA), *World Energy Outlook 2010*, ISBN 978 92 64 08624 1. Pp 47
3. www.greenbuildingindex.org
4. World Development Indicators. (2009). *CO₂ emissions per capita*. Retrieved June 5, 2013, from www.google.com/publicdata/explore?ds=d5bncppjof8f9_#!ctype=l&strail=false&bcs=d&nselm=h&met_y=en_atm_co2e_pc&scale_y=lin&ind_y=false&rdim=region&idim=country:MYS:JPN:SGP:THA&ifdim=region&tdim=true&hl=en_US&dl=en_US&ind=false