

ENVIRONMENT

Youths remain unbeaten, teams jostle for positions

JO-ANNE NINA SEWAL

BSc, MPhil, FLS, AMIB
Dept of Life Sciences,
University of the West Indies

THIS year marks the 40th anniversary of Earth Day which is celebrated annually on 22nd April. By now many readers would have gotten accustomed to commemorative dates like Earth Day having a different theme each year to shift focus to different aspects of the environment or on different environmental problems.

However, Earth Day 2010 is an exception, with this year's celebration not focusing on a specific theme but rather emphasizing events and activities on "green living" and global warming. Therefore this article will focus on these two aspects.

If we have not realised it by now, we should and that is that our planet has a finite amount of natural resources and can thus adequately support a limited amount of organisms. The industrial era which started in Great Britain in the 1700s and spread to other parts of Europe and the United States of America by the 1800s meant that products that were time consuming and expensive to make by hand were now mass produced and as a result cheaper thanks to mechanisation of the manufacturing process. The source of energy to run these machines was and still is from fossil fuels. The industrial era also brought with them mechanised means of transport like trains, cars, trucks, planes just to name a few, so that the world population was now more mobile. So we have to realise that the standard of living that we enjoy and have grown accustomed to is powered by fossil fuels. Even in our homes which are now dominated by electronic gadgets as in order to generate electricity fossil fuels have to be burnt. The human race has grown accustomed to this way of life for over a century and it seems that we have no intention of giving it up. So now that the world's supply of fossil fuels is getting low we have to look for alternative and renewable sources of energy like geothermal, wind, solar and water (hydroelectric) as well as to use the resources we have in a sustainable way.

First of all let me define "green living". This phrase has no concrete definition, but it simply means to lead a lifestyle that is eco-friendly or environmentally responsible, with the aim of minimising one's ecological footprint, that is the impact on the planet's ecosystems. This lifestyle includes sustainable use and conservation of resources, recycling, using alternative energy sources, selecting organic food choice as well as using environmentally safe products in home construction, just to name a few.

Here are just some ways one can lead a "green" lifestyle, such as car-pooling to work or to school in order to cut down on the amount of fossil fuels consumed and vehicular emissions entering our atmosphere.

As a consumer we have the power to make a better environment just by careful selection of the products we buy. For instance, we can choose to buy or utilise products that are biodegradable or from recycled materials or that can be recycled, this also includes material for use in home construction. We can also buy organic foods, such as, fruits, vegetables, and meat that are grown without the use of chemicals. Since

chemicals like pesticides, herbicides and fertilisers can leach into our water table or enter our rivers and streams as surface run off when it rains. Some persons can take this a step further by growing their own home gardens, and this way they can control the chemicals that are added to their food.

While we are on the topic of growing things, we can also plant trees either on our property or as part of a community group project. This serves the purpose of holding the soil together particularly on hillsides. Trees also act as carbon sinks, this means that they absorb the carbon dioxide in the atmosphere and through photosynthesis they release oxygen as a by product.

Education is also a key part when it comes to leading an environmentally friendly lifestyle and we can foster this by passing on this lifestyle to our children and other family members as well as our friends.

Leading a "green" lifestyle does not only mean spending money but saving it as well. Turning off lights and machines like computers, televisions, or radios when you leave a room or are not using them not only cuts down on our electricity bill, it lessens the amount of electricity needed and thus in turn the amount of fossil fuel burnt to supply it.

This leads me to the second part of this article which is about global warming. Our planet is naturally surrounded by a layer of a mixture of greenhouse gases so called because they trap a percentage of the solar radiation reflected from the Earth's surface, the same action done by the glass walls of a greenhouse.

This natural layer keeps the planet's surface approximately 30C warmer than it would be without it. Global warming simply means a rise in the average temperature of the Earth's near surface air and oceans. The cause of this environmental problem is increasing amount of greenhouse gases, like carbon dioxide, methane, nitrous oxide and fluorocarbons in the atmosphere.

Excess amounts of carbon dioxide in the atmosphere are caused mainly by the burning of fossil fuels and deforestation, the latter of which acts as I mentioned earlier as carbon sinks. Methane is produced from decaying organic matter in landfills and from livestock. Nitrous oxide is released naturally from oceans and bacteria in soils; however, its increased presence in the atmosphere is due to nitrogen based fertilizers, vehicle emissions and disposing of human and animal waste in sewerage treatment plants. The last group of greenhouse gases, fluorocarbons is synthetic and contains carbon and fluorine. They are used mainly as coolants in refrigerators and air conditioners and in aerosols.

Effects on our environment caused by global warming includes, severe floods and droughts, melting glaciers and polar ice caps, rising sea levels which, if continued unchecked will cause sea water to enter our rivers and streams raising the salinity of our freshwater sources.

These conditions will no doubt have an effect on both the terrestrial and aquatic biodiversity. Not to mention the quality of life of humans.

The relatively recent rise in the planet's temperature has led to the passing of certain legislature like the Kyoto Protocol in 1997 to reduce

the world emissions of these substances.

Earth Day can be regarded as a benchmark for reflection of

what has been achieved since the last Earth Day, with this year's celebration focusing on promoting global awareness and

preventing global warming, because we all have to do our part to protect and preserve this planet.

