

**COMMENTARY** *By* DR. DHANPAUL NARINE

# Waste not, Want not!



Dr. Dhanpaul Narine

Water, and not oil, will be the source of future world conflicts. It will be the biggest threat to world peace. It is New Year's Eve. Thousands are in Manhattan to watch the ball drop. By the time the clock strikes midnight, until lunch the following day, New York would have consumed enough energy to supply the Caribbean for a year and millions of liters of water would be wasted.

It is lunchtime in a New York City Public School. By the time the session is over gallons of milk and sandwiches and fruit will go to waste. They will be dumped without being touched. When we waste food we waste energy. We waste water. Food on the table involves a complex chain, from land preparation to production, transportation, storage, marketing and packaging and finally consumption. When we throw away food we waste all the energy that is used in its production. Scientists estimate that waste in the United States each year is equivalent to around 400 million barrels of oil and this can power the country for about 2 weeks.

The statistics for the US alone are mind-boggling. For example, Americans toss 500,000 cell phones everyday, 106,000 cans every second, and discard 60,000 plastic bags every 5 seconds and if you are traveling on a plane you may be reminded that the aviation industry uses a million plastic cups every 6 hours. We also use 15 million sheets of office paper every five minutes and each hour 2 million bags are used in supermarkets.

In November 2015, an investigative report by ABC7 News found that about 10 tons of fresh produce were in heaps in Salinas Valley in California ready to be dumped to landfills. Salinas Valley produces 70 per cent of the salad greens in the United States. Food waste is so great it has led scientists to conclude that in the US alone 25 per cent of household food ends up in the garbage. This amounts to around

\$3,000 of the annual food bill per household and is worth \$48 billion nationally.

Why is so much food wasted? The answer is most interesting. According to the Natural Defense Council huge amounts of fruits and vegetables are rejected 'because they are ugly.' One of the chief dumpers is Dole Foods. When asked to comment on food waste at the facility Dole said in a statement, 'Dole disposes of approximately 20,000 pounds at the Salinas waste facility. These bags are samples that we use to monitor product performance and are not intended for public consumption.' In other words Dole is throwing away food that could be used to feed the hungry because it wants to monitor product performance. It is well known that if a vegetable or fruit looks odd it is rejected because it is said to have the wrong shape.

It is said that around 30 percent of the food grown worldwide is wasted before it reaches the consumer. The United Kingdom Office for Science says that the figure could be as high as 50 per cent. In developing countries much of the waste occurs on the farms as a result of poor techniques in agriculture. Investment in agriculture has dropped in many countries with the result that transport and storage of food is lacking.

Food waste has an impact on other sectors of the economy. There is climate change to consider. Tons of discarded food in landfills produce methane gas and this is 20 times 'more effective at trapping heat in the atmosphere

than carbon dioxide.' In 2010, food waste in the US, 'accounted for 100 metric tons of methane originating from landfills.' The figure is also high for Europe where it is estimated to be 170 metric tons. The terrible effects of methane spillage could be seen in California where a state of emergency was declared in January 2016. Apart from methane gas there is also water. When we waste food we waste water. Calculations suggest that food waste is responsible for more than 25 per cent of the freshwater consumption worldwide.

The next time you crave a hamburger spare a thought for the amount

at every scale from local to global.' The world's population is estimated to reach 9 billion by 2050 and raising enough animals to keep up with this increase will be a problem for the environment. Every hour hundreds of acres of land in the Amazonian rainforest are cut down to make way for cattle grazing. It is no secret that China is buying up lands in South America to expand pig cultivation.

Research at Oxford University shows that 45,000 lives would be saved in England if meat intake is reduced. It would also save 1.3 billion pounds on the National Health Service. China's meat ex-

need meat to make an excellent dish that is exciting and full of flavour. I passionately believe that vegetables can be the star of the show.'

One of the resources that we take for granted and waste is water. But the supply of water is by no means limitless. The use of water has increased three-fold in the last fifty years and there has been no commensurate increase in the stock. As with other forms of resources water use reflects the paradox of our times: water is readily available to the rich while the poor in developing countries experience water shortages and untreated water. According to the World Bank,



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of water that goes into the preparation of the fields for cattle production. A UNESCO study in 2005 says that around 20 percent 'of the total water footprint of the agricultural sector in the world is related to the production of animal products' and one-third of that goes into cattle production. Meat consumption is a personal choice but vegetarianism has its benefits and these can be researched. If we stay away from meat for one day a week we can significantly reduce global greenhouse emissions.

The Food and Agricultural Organization (FAO) says that, 'the livestock sector is one of the top most two or three significant contributors to the most serious environmental problems

pansionist policies have been outlined but India has become one of the biggest consumer and exporter of meat. The FAO in 2007 estimated that India's per capita intake of meat was around 6 kilograms per person, the highest since records began. India's chicken revolution and export of beef and buffalo meats has placed pressures on the environment. India is one of the leading emitter of methane gases in the world.

The rise of consumable incomes means that meat consumption is increasing among the Indian middle classes. But the world would do well to heed the advice of one of France's top chefs. Bruno Loubet says, 'It is something you would not expect a French chef to say, but you do not

'there are 80 countries that have high water shortages with more than 2.8 billion people living in areas of high water stress.' This figure is expected to rise by 2050 to around 4 billion and it is projected that even before then there could be wars between nations for access to water.

As it stands Sana, the capital of Yemen, could be the first major city to run out of water and other cities could follow; around 700 cities in China are currently short of water. The melting of glaciers in Asia and South America has led the United Nations to conclude that climate change is linked to water shortage. The UN says that 'water and its availability and quality will be the main pressures on and issues for societies

and the environment under climate change.' The water situation is so serious that it has engaged the attention of the US government.

In 2012 the US Intelligence Council reported that, 'the fragile ecosystem of international trade and political partnership that America relies on will be threatened...and that countries will come to blows over a single resource: water.' In other words water will be the new oil. How can the lack of water lead to global insecurity? Since 70 per cent of the world's water is utilized for agriculture a water crisis will lead to immense damage in agricultural output and food markets. At current rates there is stress on water reserves with countries over-pumping to meet the demands.

The US Intelligence Report makes it clear that, 'when combined with poverty, social tensions, environmental degradation, ineffectual leadership and weak political institutions- water shortages contribute to social disruptions that can result in state failure.' What then can we do to prevent a global calamity?

There are various programs that encourage us to 'think green.' These are commonsense approaches that if implemented can help and in many cases they cost little. Buy in bulk, reuse bags and other products, pay your bills online, go meatless one day a week, take your own shopping bags to the supermarket, cut down on the use of plastic straws, and save water. Major outlets have begun to review their food policies and are donating to charities but conservation education is still needed.