

# Eating healthy is environment friendly

Going vegetarian may  
save the earth too!



Al Gore's remarkable film, "An Inconvenient Truth" has brought home to all who have seen it that the relentless quest for 'development' in the recent decades has overturned the balance of greenhouse gases in the atmosphere and has set up a dangerous rise in the global temperatures.

Molecules of gases like carbon dioxide, methane or nitrous oxide are large and heavy and can store energy, like a flywheel. This is unlike the more common atmosphere gases, like nitrogen, oxygen or hydrogen. This is the reason that buildup of heavy gases, also known as greenhouse gases, in the atmosphere tends to store heat and raise temperatures.

## **Global warming**

The immediate result of rising temperature is melting of arctic snows and glaciers, rise in sea levels and great and unpredictable changes in climate of the world. But the danger is that with the reduction of glacial melt, the source of water for the major river systems of China and India gets hugely reduced. The populations that depend on this resource would then be deprived and the ramifications, social, economic and political would affect the whole world.

The main causes of global warming being addressed are engines that burn gasoline, like cars or aircraft, and the burning of coal or oil for generation of electricity. The world is hence being exhorted to drive less, use more efficient cars, better industrial processes and generate electricity from wind, tides, sunlight or even nuclear methods - to save the atmosphere - and hence the dwindling resources of water.

As it is, the availability and consumption of water is unequal, with the US citizen using a hundred times the water more than a person in Burundi or Uganda. Humans need about fifty litres of clean water a day to stay healthy - for drinking, washing, cooking and sanitation. But in 55 countries, this much is not possible, a billion people cannot access adequate drinking water, and half the world's population lacks basic sanitation

In 1996 it was estimated that humans were using over half the accessible fresh water, which is three times what they used in 1950. While it was estimated that if the trend persisted, then by 2030 our needs would outpace availability, that was before the sources of water themselves were known to be getting wiped out!

### **Another culprit**

While burning fossil fuels has rightly been identified as an important agent leading to global warming and reduction of water supply, another factor that increases greenhouse gases and uses up scarce water is the meat consumed by populations. A report by the Food and Agriculture Organization of the United Nations found that livestock production was responsible for 18% of global greenhouse gas emissions alone, a proportion greater than all the surface and air transport in the world put together! Add to this the quantity of water that meat production consumes and it begins to appear that what the world needs to save the crisis is new eating habits.

### **Greenhouse gas**

Livestock production is responsible for 37% of global methane emissions, a greenhouse gas that has a global warming effect twenty three times greater than CO<sub>2</sub>, and 65% of global nitrous oxide emissions (mainly due to manure) which has 296 times the global warming potential of CO<sub>2</sub>. In the US alone, livestock can produce 130 times more excrement than the entire global human population. In addition the sector accounts for 64% of ammonia emissions, which can lead to acid rain and the acidification of ecosystems. Of all the farmed animals, of which there are 55 billion worldwide, beef is the most carbon-intensive, producing 34.6 kg of CO<sub>2</sub> per kg of meat.

### **Grain and water**

Apart from carbon emissions, which contribute to global warming and the water crisis, meat production compounds things by record water consumption. The water consumed in producing a kilogram of beef is about 15 tonnes, compared to 400-3000 kg for cereal crops. A vast proportion of land and water, and fuel and power resources are then locked in producing cheap meat – at the cost of cost of rice and wheat, and ecological consequences worldwide. It is ironic that while meat production thus makes it difficult to produce grain, around 40% of the world's grain produce is used for feeding animals.

The sum total of resources that get consumed in meat production is staggering. . About 26% of the world's land is used for grazing livestock, and another 33% is used to grow the crops and grain to feed them. The demands of livestock have led to deforestation, soil erosion, effects of overgrazing and the displacement of local communities. In the Amazon, 70% of previous rainforest land is now pasture, with animal feed crops occupying a good part of the rest.

The dismantling of the ecosystem of the earth – by transport, electricity, plastics, could still be stemmed by choosing different food.

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