EcoConsumer

A Quarterly Newsletter for the Promotion of Sustainable Production and Consumption

CUTS International

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Let us Make Waste Management a People's Movement

Any material with no economic value is a waste. So the moment it acquires economic or even some type of value it becomes useful and therefore a resource. Today wastes arising out of homes, hotels, hospitals, industries or institutions are a major problem because we have not been able to work out an integrated approach to reduce them in the first place, to reuse them or to recycle or convert them to something useful. A lot of work is being done on this in many parts of the world but we are yet to evolve models to convert this kind of a problem into a great opportunity.

Managing waste and ensuring a clean environment has been an enduring challenge before Man through the ages. The Greeks were the first to think and map out an arrangement, with the city of Athens organising the first municipal dump circa 500 BC. Citizens were required to dispose of their wastes at least a mile (1.8 km) from the city walls. Milleniums later, Man is still engaged in perfecting the most ideal solution to handle wastes in a cost-effective manner. Governments and civic authorities have evolved and put into place a range of solutions involving newer technologies. But the problem is still several streets ahead of Man.

One stark lesson that is emerging from all such efforts is that any arrangement that touches people's lives will most importantly need their active participation. Unfortunately, the common perception is that waste management is exclusively the responsibility of the government and the civic authorities.

Managing waste does not cost much. It may surprise people to know that by spending as little as Rs.20 a month one can keep one's house and environment clean. What is required is to pursue a systematic approach and combine modern concepts of waste management with public cooperation.

For example, municipal solid waste could be segregated into dry and wet wastes at the source itself, suitably tagged in bins. The wet waste can easily be converted into compost to provide a source of energy and organic fertiliser. Dry waste can be segregated into paper, plastic, glass etc. and recycled to give them added economic life. Debris can be converted suitably for use in construction.

Wherever a systematic approach and public cooperation have combined, astounding results have been obtained. Orillia, a small town in Ontario, Canada, has repeatedly won prestigious awards such as 'Greenest City', 'Silver Waste Minimization Award', 'Best (recycling) Promotion Award' etc. by the simple expe-dient of issuing different categories of garbage tags to its citizens and collecting the waste for recycling/disposal accordingly. In many American cities a system of pay-as-you-throw exists where residents pay for municipal solid waste collection based on the amount of waste they throw away. This encourages recycling of waste and ensures its reduction.

Even in third world countries like Indonesia, Ghana and Guinea people pay a nominal container-emptying fee to the municipal authorities. Thus a healthy service provider-client relationship is also established.

In Delhi a unique project to convert kitchen waste into compost is underway, involving school children, assisted by a NGO. Nearly 200 compost units have been established to convert garden/kitchen waste into organic fertiliser.

An important avenue of waste management is reducing waste itself. For example, we can decide to buy products; with the least amount of packaging. Packaging is estimated to be 13 percent of the cost of a product, about 50 percent when it comes to packing food items. Imagine the amount of waste, and thereby costs, that can be saved by that one decision. Using reusable plates and utensils, donating or selling old clothes, toys, furniture, buying retreaded tyres, limiting the use of disposable items, and buying products in reusable, refillable or recyclable containers are among the other range of options that could be practised.

Fortunately, the average amount of waste generated by a household in India is 400-600 gms per day as against 750-1000 gms in Malaysia and Thailand and 1.5-2 kg in Japan and the US. However with our current growth at consumption it will not be too long before we catch up. It is therefore prudent and wise to act now.

(Adapted from the 'Sintex Times', Volume-4, Issue-15)

CUTS International

Insects, Too, Hate the Smell

A Bangladesh scientist has developed a biopesticide from garlic, whose smell perhaps repels insects as much as it does humans. The garlic tablet can treat seeds that can be planted on fields up to 0.4 hectare. Seeds dipped in a solution of the tablet in water have 95-100 percent rate of germination as against 50-60 percent in untreated seeds and the seedlings are free from disease.

(DTE, 15.04.05)

Eight Indian States Form Biodiversity Boards

Dr S Kannaiyan, Chairman, National Biodiversity Authority, has announced that State Biodiversity Boards (SBB) have been set up by eight states of India: Arunachal Pradesh, Goa, Karnataka, Kerala, Madhya Pradesh, Nagaland, Punjab and West Bengal.

Besides performing all functions as per the National Biodiversity Act, 2002, the SBBs will advice the State Governments on the guidelines issued by the Centre relating to biodiversity, sustainable use of resources and equitable sharing of benefits arising from the utilization of biological resources. Industries would also be required to inform the respective boards about use of biological resources.

(TH, 08.06.05)

Economic Growth is Straining the Earth

Worldwatch Institute, the Washington DC, US, based organisation, has released its annual 'Vital Signs' report for 2005. Increased production and consumption of everything from grain to oil to meat to automobiles reflects strong economic growth round the world in 2004. At the same time, pollution continues to increase, ecosystems are degraded, and many of the world's poor are being left further behind despite economic growth. Although the growth of developing nations with growing populations will play a critical role in the world's future, the report stresses that, rich nations with low populations and "sky-high consumption patterns remain a major threat to the global environment."

(ENS, 12.05.05)

Sustainable Energy from the Sea-Bottom

John Piña Craven, a scientist working in Hawaii, US, has conceived of a system by which an inexhaustible supply of energy and other facilities may be obtained merely by pumping up the icy cold water from the deep sea. Craven's system exploits the dramatic temperature difference between ocean water below 1000m - perpetually just above freezing - and the much warmer water and air above it. That temperature gap can be harnessed to create a nearly unlimited supply of energy.

For power, pipes draw warm water from the ocean surface and cold water from the seabed. The warm water enters a vacuum chamber and is evaporated into steam that drives an electricity-producing turbine. The cold water condenses the steam back into water for drinking and irrigation. Circulating the cold water also produces air-conditioning. The sweat on the outside of the pipe produces water for drinking and irrigation. What more, Craven even feels that by carefully controlling the cold water running through pipes in agricultural beds, it is possible to accelerate plant growth and maturity.

(WN, 13.06.05)

Unsustainable Fishing

Wild Fish Catch Hits Limits

After decades of growth, the reported global wild fish catch peaked in 2000 at 96 million tons and fell to 90 million tons in 2003, the last year for which worldwide data are available. The catch per person dropped from an average of 17 kilograms in the late 1980s to 14 kilograms in 2003, the lowest figure since 1965.

The 10 most-fished species constitute 30 percent of the world's catch. Seven of these have reached their limits and are classified as fully exploited or overexploited throughout their entire ranges, meaning that we cannot expect to increase their harvests. Interestingly, several of these species became fishing targets only after the stocks of more desirable fish were over harvested.

The irony is that governments subsidize the destruction of oceanic resources to the tune of US$15-30bn each year. In 2001, subsidies paid to the fishing industry in Japan reached US$2.5bn, equal in value to a quarter of the catch. US fishing subsidies totalled US$1.2bn, exceeding the worth of 30 percent of the U.S. catch. Removing these subsidies could go a long way toward relieving pressure on fish stocks.

(EPI, 28.06.05)

1000 Sea Mammals Killed Daily

Indiscriminate and unsustainable fishing has another victim - sea mammals. Almost 1,000 whales, dolphins and porpoises die daily in fishing nets and urgent changes are needed in trawling methods, the conservation group WWF has urged. Its report — which WWF says is the first assessment of the situation by leading marine scientists — points to the accidental catching of cetacea in fishing gear as one of the gravest global threats to marine mammals.

But the report says the populations of these threatened creatures could recover with changes to fishing gear combined with other conservation methods. Innovations include attaching acoustic alarms to nets that annoy marine mammals — a method that has reduced harbour porpoise deaths in the Gulf of Maine.

(Reuters, 09.06.05)

Shrimp Farms Replacing Mangrove Forests

Since the 1960s, the mangrove forests of South East Asia have systematically been destroyed to make way for commercial shrimp farming and a massive increase in the tourism industry. Now, almost 70 percent of South East Asia's mangrove forests have disappeared. The result is that the coastline is becoming increasingly vulnerable to erosion and natural disasters as was starkly evident during the recent tsunami. The extent of damage was multiplied many times over because of the decline of protective mangrove covering.

Moreover, the mangrove forests absorb carbon dioxide and provide a natural breeding ground for crustaceans and fish, on which the local populations depend for their livelihoods. With the reduced mangrove swamps, fishing harvests have declined and fishermen are resorting to dynamiting the corral reefs to ferret out the catch, causing untold damage to the ecology and adding to coastal vulnerability.

(Ecoworld, O6.04.05)

Two-thirds of World Resources 'Used Up'

A report backed by 1,360 scientists from 95 countries - some of them world leaders in their fields - have warned that the almost two-thirds of the natural machinery that supports life on Earth is being degraded by human pressure. The wetlands, forests, savannahs, estuaries, coastal fisheries and other habitats that recycle air, water and nutrients for all living creatures are being irretrievably damaged. In effect, one species is now a hazard to the other 10 million or so on the planet, and to itself. The report, published under World Bank auspices, warns that:

- Because of human demand for food, fresh water, timber, fibre and fuel, more land has been claimed for agriculture in the last 60 years than in the 18th and 19th centuries combined
- An estimated 24 percent of the Earth's land surface is now cultivated.
- Water withdrawals from lakes and rivers have doubled in the last 40 years. Humans now use between 40 percent and 50 percent of all available freshwater running off the land.
- At least a quarter of all fish stocks are over harvested. In some areas, the catch is now less than a hundredth of that before industrial fishing.
- Since 1980, about 35 percent of mangroves have been lost, 20 percent of the world's coral reefs have been destroyed and another 20 percent badly degraded.
- Deforestation and other changes could increase the risks of malaria and cholera, and open the way for new and so far unknown diseases to emerge.

(Guardian, 01.04.05)

GM Crops Foster Ecological Imbalance

A UK study suggests that some genetically modified (GM) crops can harm bees and butterflies by altering the balance of weed species that thrive on farmland. This would subsequently impact animals higher up in the food chain, it warns.

The study found that the number of butterflies decreased by up to two-thirds and bee populations by half in the fields of transgenic winter oilseed rape (canola). It blames the weed-control system for this. The crops are resistant to a particular herbicide, which hits broad-leafed weeds harder than grassy varieties. Bees and butterflies suffer because they prefer the former. "If this crop were commercialised, we'd be concerned about the implications for birds such as sparrows and bullfinches," says David Gibbons, a conservationist from the Royal Society for the Protection of Birds and a member of the committee that oversaw the experiment.

In 2003, two of the three other transgenic varieties covered by the three-year study, spring oilseed rape and beet, were shown to harm bio-diversity by reducing overall levels of weeds.

(DTE, 30.04.05)

Poachers Turn Protectors of Tigers

In the face of a rapidly dwindling tiger population in the Sundarbans, India, Project Tiger, involved primarily with the protection of the Big Cat and its habitat in India, has been largely successful in changing the mind set of the local people from one of antagonism towards the beast to one of harmony.

This has been possible chiefly by introducing eco-tourism in the region and convincing the populace that conservation is a paying proposition. With sustainable incomes from the initiative, the locals have begun to feel that they are the real stakeholders of natural resources in the biosphere reserve.

(KN, 31.05.05)

Cheap Air Travel "Costs the Earth"

Environmental groups like Friends of the Earth and Greenpeace feel that the cut-price airline ticket is fuelling a boom that will make countering global warming impossible. The have set out in detail how the soaring growth in carbon dioxide emissions from aircraft that the cheap flights bonanza is promoting, will do terrible damage to the atmosphere and make a nonsense of global warming targets. Here are some stark facts about flying:

- Planes pump out eight times more carbon dioxide per passenger mile than a train: Air travel produces 19 times the greenhouse gas emissions of trains; and 190 times that of a ship.
- Aviation could contribute 15 per cent of greenhouse gases each year if unchecked.
- Emissions at altitude have 2.7 times the environmental impact of those on the ground.
- As an example, a return flight from the UK to Australia will release as much carbon dioxide as all the heating, light and cooking for a house in the UK for a year.

(TI, 29.05.05)

The 13th Session of CSD

The 13th session of the UN Commission for Sustainable Development (CSD) was held at New York in April. The meet had water supply, sanitation and human settlements as its focus areas. Unfortunately, no path-breaking decisions appeared to have come out of the convention. Though participants agreed on broad policy guidelines, they could not reach consensus on how to move forward. Many of them felt the recommendations lacked specifics.

Integrated Water Resource Management (IWRM), a process promoting ecologically sustainable water management, drew significant attention at the meet. But delegates recognised that not all countries would meet the 2005 target to incorporate IWRM principles in their national strategies.

(ET, 24.04.05)

No Wails for Whales

Japan has refused to bow to international pressure to stop whaling. The country had accepted the International Whaling Commission's (IWC) 1986 ban on commercial whaling but resumed whaling for "research" in 1987. Whale meat also happens to be a delicacy in traditional Japanese cuisine and whale meat obtained for "research" was sold in markets.

Now, Japan plans to tell the IWC that it plans to double its annual catch of minke whales in the Antarctic Ocean. Australia has recently launched an international campaign against Japan's whaling activities in the name of scientific research. Japan, on its part, says that minke whales consume valuable fish stock.

(DTE, 30.06.05)

US States Sue Over Global Warming

Twelve US states including California, Massachusetts and New York have joined environmental groups including Greenpeace to bring a lawsuit to bear new pressure on the federal government on global warming that would force the regulation of carbon dioxide emission. They argue that existing federal legislation in the form of the Clean Air Act can be used to police carbon dioxide discharge.

The Clean Air Act imposes curbs on pollutants such as sulphur and nitrogen oxides. The States are arguing that carbon dioxide which is formed by burning fossil fuels can harm people just as much as the substances traditionally thought of as pollutants, because it is a greenhouse gas that traps heat on earth and thus cause climate change.

(FT, 10.04.05)

Bio Fuels Triggering Climate Change?

A study conducted jointly by the Indian Institute of Technology (IIT), Mumbai, India, and the University of California (USA) shows that bio fuels like firewood, animal manure and agricultural waste used for cooking in India, could be a potential trigger for climate change in the region. Large amounts of soot, or black carbon, released by the process (aggravated by inefficient stoves) absorb light, which increases atmospheric temperatures and lowers land temperatures. This could have a major impact on rainfall patterns, making floods and droughts more intense. The study recommends a change to cleaner fuels like kerosene or liquid petroleum gas. But these are expensive and beyond the means of the poor.

However some scientists in India differ: the tests conducted under laboratory conditions may not replicate in situ conditions. Others are of the opinion that even if the conclusions are true, "how can we compare such survival emissions to luxury emissions in the developed countries?"

(DTE, 15.04.05)

India's First CDM Project

Refrigerant-gas manufacturer, Vadodara based Gujarat Fluoro-Chemicals (GFL) has become the first Indian company and the third in the world to have an emission-reduction Clean Development Mechanism (CDM) project, under the Kyoto Protocol (KP), approved.

GFL makes HCFC 22, a coolant used in air-conditioning and refrigeration. HFC 23, another fluoro-carbon and a potent green house gas, is generated as a by-product. GFL's CDM initiative involves adapting an eco-friendly process to ensure HFC 23 is not emitted.

(DTE, 31.05.05)

US & G8 Countries under Pressure from Scientists

In a statement issued before the G8 summit in Gleneagles, Scotland, in July, US National Academy of Sciences (USNAS) have increased the pressure on President Bush and other world leaders to reduce greenhouse gas emissions. The statement says that there is strong evidence that global warming occurring in recent decades is man-made.

It follows months of negotiations between the UK's Royal Society, which published the declaration, and other academies. A source close to the negotiations called the support of the USNAS as "unprecedented" as previously it had stopped short of making a policy recommendation.

(TH, 09.06.05)

Global Warming's Attempts at Self-sustenance!

A study conducted by the Bigelow Laboratory of Ocean Sciences, US, has brought out a peculiar cycle that could easily be derisively termed as global warming's attempts at self-sustenance.

The decreasing snow cover over South-west Asia and the Himalayas caused by global warming creates a large temperature difference in summer, between the Arabian Sea and its littoral areas. This results in strong winds from the sea to the land, causing a churning in the sea that brings deep waters to the surface.

The Arabian Sea happens to host one of the world's largest 'minimum oxygen' zones, located at a depth of 150m-1000m. Bacteria living in these depths have got around the problem of low oxygen by extracting it from nitrates present in the water, producing in the process nitrous oxide, a greenhouse gas 300 times more harmful than carbon dioxide. The wind-induced churning of the waters brings to the surface this nitrous oxide that is then released to the atmosphere - to the obvious glee of global warming!

(DTE, 31.05.05)

Marine Life Also Affected

The above phenomenon of reduced snow cover over the Himalayas that causes high winds and sea churning also has another dimension. The Bigelow Laboratory study furthermore found that the decreased snow cover produces conditions for widespread bloom of phytoplankton (microscopic marine plants) in the Arabian Sea. While marine life feeds on phytoplankton, its uncontrollable growth deprives the region of oxygen, affecting marine life, especially fish.

The whipped up sea leads to upwelling of nutrient-rich water. This helps the phytoplankton to proliferate, consuming much of the oxygen in this already oxygen-deficient area. Marine life forms, especially fish, do not get sufficient oxygen and eventually they die.

An instance of remote control if there ever was one - reduced snows in Southwest Asia and the Himalayas distresses marine life in the Arabian Sea, thousands of kilometres away.

(DTE, 31.05.05)

Proof of Climate Change

Climate change sceptics have been using the slight changes in data, beamed back by earth observation satellites over several years, to argue that the human impact is either unproven or negligible. Other scientists attribute this 'wriggle room' of the nay-sayers to the slight inaccuracies in the orbiting instruments.

The London-based National Physical Laboratory has come up with a satellite, named Truths, that will have on board a cryogenic radiometer - essentially an astonishingly accurate thermometer - that has the capacity to absorb 99.999 percent of radiation falling on it. The satellite will set benchmarks for the radiation reflected off certain localised (hence leading to even more accurate readings) parts of the planet like deserts etc. When another satellite flies over the same point, it would be able to update its own calibration coefficients to those defined by the Truths satellite. With the same standard for all satellites, the data they send back will be directly comparable. This will drastically

reduce the uncertainties of instrument inaccuracies and the 'wriggle room' will disappear.

As a bonus, Truths could also play a role in the implementation of the Kyoto Protocol by policing carbon trading and monitoring localised pollution.

(TH, 16.06.05)

Global Warming makes Sea Less Salty

Since the late 1960s, much of the North Atlantic Ocean has become less salty, in part due to increases in fresh water runoff induced by global warming, scientists say. Now for the first time researchers have quantified this fresh water influx, allowing them to predict the long-term effects on a "conveyor belt" of ocean currents. Climate changes in the Northern Hemisphere have melted glaciers and brought more rain, dumping more fresh water into the oceans, according to the analysis.

The declining salt in the waters has potentially worrisome consequences that scientists are unable to predict accurately. One of the expected high-profile consequences is a rising sea that will swamp coastal communities. But there are other possible effects. Because water with lower salinity is less dense, adding fresh water may affect ocean flows like the conveyor belt - a system of Atlantic currents that exchanges cold water in the Arctic region for warm water from the tropics. Slight changes in the currents — both seasonal and longer-term variations — affect everything from hurricane formation to droughts and heat waves.

(LS, 29.06.05)

Warming May Harm Africa's Sand Dune Fields

Global warming could have a major impact on Africa's southern sand dune systems, spreading desert-like conditions and destroying the livelihoods of hundreds of thousands of people before the end of the century, new research warns. Large parts of interior southern Africa stretching from northern South Africa to Angola, Zambia and beyond are made up of stabilized sand dunes. They are at least partially covered in vegetation and support a growing population of herders and farmers. But research presented in the June edition of Nature predicts widespread reactivation of these dunes as average rainfall declines, droughts increase and wind strengths pick up in the coming decades — something last seen 14,000-16,000 years ago.

(AP, 30.06.05)

US Mayors Agree on Kyoto Pact

The U.S. Conference of Mayors unanimously passed a resolution requiring their cities to try to meet or surpass emissions standards set by the Kyoto Protocol, 1997. This is in the face of President Bush's opposition to the protocol and the U.S. administration's questioning of the scientists' views that "greenhouse gases", such as carbon dioxide, are causing average global temperatures to rise.

(AP, 14.06.05)

Warming Forces Alaska Village to Move

To many of us the current hullabaloo on global warming is but a passing footnote in our daily lives. But to some communities it is a real threat to their very livelihood and existence.

With sea ice shrinking, permafrost thawing and sea storms becoming more frequent, residents of Shishmaref, a remote Eskimo village in Alaska are preparing to move their entire community to more solid ground. Erosion at this island village of 600, is so dramatic that residents plan to start moving to a new site about 22 km inland by 2009; a quicker move may be necessary if big storms arrive. According to one estimate the cost of moving the village will be between USD 150m-180m.

(Reuters, 10.06.05)

Airports Bane of UK's Kyoto Targets

The UK is at risk of missing its Kyoto climate change targets because more than half of planning applications for wind farms are thrown out. The problem is that wind farms within a radius of 100 km of an airport are confusing radar readings and interfering with air traffic control systems. The radar signals from the turbines' moving blades are typically similar in size to a light aircraft. To confound the radar further, the tip speed of the blades is just below the speed of sound, much the same as an aircraft. Air traffic control is affected so much that a wind farm built under a flight path would result in the closure of the airport. In practical terms the opposite is more true - there remains precious little space to install wind farms beyond the pale of UK's airport network.

To overcome this problem, the UK is developing suitable software involving fuzzy logic that will filter out images of windmills from radar screens.

(TBL, 29.06.05)

Global Warming may Create Lopsided Planet

Using computer-generated simulations a new study conducted by the University of Maryland, US, predicts extra precipitation around the South Pole, while the far north melts away due to global warming. The idea not only runs counter to accepted logic but also to an actual scientific study conducted earlier this year that found glaciers in part of Antarctica are melting rapidly. The extra precipitation will mean deeper snow, which will suppress sea ice below, making it thicker over time.

The researchers hope to get validity on the ground, within a short time, of their findings obtained through computer simulations.

(LS, 29.06.05)

Permafrost may be Shrinking Arctic Lakes

Arctic lakes are shrinking, and melting permafrost brought on by higher temperatures may be the reason, according to a research paper. The researchers concluded that lakes where permafrost remains frozen are growing. But, completely contrary to expectations, where permafrost has thinned or completely melted, lakes are shrinking or disappearing, a change that could affect habitat for migratory birds. Permafrost is ground that remains below freezing temperature all year. It may contain ice, but with or without it, the ground remains impermeable.

As temperatures rise, ice and snow melt and put more water into Arctic lakes. Thus researchers expected to measure more, larger lakes, not fewer. But where permafrost thinned or disappeared, lakes were shrinking. They concluded that melt water is seeping into soil, as permeability of the ground increased with decreasing permafrost.

(AP, 06.06.05)

Electricity from Vegetable Waste

The biomethanation process is nothing new but Chennai, India, is set to become the first in India to install a power plant using vegetable waste as fuel. The power plant will come up in the backyard of the sprawling Koyambedu vegetable market. Half of the 80 tonnes of vegetable waste generated each day in the market will only be utilised, to generate 4800 units of electricity.

The vegetable waste will be shredded and fed into a digester to produce a gas mixture consisting of 65 percent methane. This mixture will be fired in an engine to generate electricity. A by-product of the plant will be bio-fertiliser, produced out of the liquid remains from the digester.

(TH, 25.06.05)

Energy Security: New Buzzword in Indo-US Ties

Natural gas, once regarded as a wasteful and bothersome by-product of oil exploration is set to become the premier fossil fuel in the coming decades. Compared to oil, gas works out some 60 percent cheaper at current rates of oil.

The US has identified India and China as its biggest competitors for energy resources in consideration of their booming economies. However, by geo-physical quirks the major gas reserves of Iran, Qatar, Yemen, Russia, Central Asia, Nigeria, Angola and Venezuela are all located some distances from either the US or India. With many of these countries seen as politically volatile, gas from these fields has to traverse through uncertain political and physical terrain.

Because India is moving quickly to secure future energy supplies, Washington is now trying to reconcile its own needs with that of the growing and assertive Indian demand. This urge for energy security on both sides has led to visible and behind-the-scenes diplomatic activity.

(ToI, 16.06.05)

Hydrogen Fuelled Cars

Just Three Years Away? ...

The Indian Oil Corporation (IOC), jointly with Reva, the Bangalore, India, based electric car pioneer will create by 2008 the infrastructure and logistics to service 1000 vehicles running on hydrogen fuel-cells. Reva had developed a fuel-cell based car a year ago but new deliveries, producing 5kw of motive power, will be based on more efficient, second-generation fuel-cells developed through Canadian technology.

The research arm of IOC in its turn would test the problems associated with hydrogen storage and delivery and aim at making the fuel available 'on tap'.

(TH, 05.06.05)

...Or, Several Decades Away?

However, there is considerable scepticism in some scientific circles about how soon a 'hydrogen economy' can be developed. Three U.S.-based researchers say that this is 'several decades away'. Their comment: "the hydrogen economy and associated infrastructure will not be realized for several decades. Because success is not certain, it will be wise to maintain a robust portfolio of energy research and development that includes programmes in areas other than hydrogen."

(TH, 05.06.05)

Power Initiatives in China

Nuclear Power to Quadruple

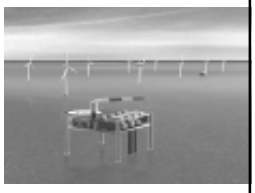
China is the second largest energy consumer in the world today. It is also the fastest growing producer of nuclear power in the world.

China now operates nine nuclear power plants producing 7000mw of power that constitutes 1.8 percent of its installed capacity. The country has chosen nuclear energy to power some of its economic development and plans to install 28 more plants each of 1000mw capacity by 2020.

China has settled upon nuclear energy because it does not emit greenhouses gases. However the twin environmental problems of safe disposal of nuclear waste and radioactive contamination in the event of an accident, remain.

(ENS, 20.04.05)

Proposed Offshore Wind Farms



Wind turbines stationed up to 50 km offshore and in waters up to 30 m deep could be a key part of China's renewable energy programme in two or three decades, according to planning officials in the country. The sea-based farms would be ideally situated to supply clean power to the populous and booming east coast area, without competing for space wanted for farming or urban development. China aimed to have 20 gigawatts of wind-generating capacity installed by 2020, equivalent to around one percent of annual electricity consumption at that time.

(Reuters, 26.04.05)

India's First Solar Energy Housing Complex

New Town, an urban settlement being developed just to the north of Kolkata, India, is slated to have the first housing complex in the country with solar energy. Solar panels installed on the roofs of the buildings in the complex will provide 2 kw. of power and 100 litres of hot water. The constructions themselves will be designed according to 'passive solar technology' that would keep the houses cool in summer and warm in winter.

But these properties will not come cheap. Each 160 sq. mtrs. house will cost around Rs 3.8-4mtr.

(ABP, 30.06.05)

Renewable Energy to Power Cargo Ship

A concept model of a cargo ship, E/S Orcelle, has been designed by a Scandinavian shipping company to run exclusively on renewable energy. The ship would have a cargo deck area the size of 14 football fields. 'E/S' in the name denotes 'Environmentally-sound Ship'

Three giant rigid sails made of special lightweight composite materials would have solar panels mounted on them. Besides the sails picking up wind energy, the solar panels will produce electricity, to drive the ship at 15 knots. Wave energy would be utilized through a series of 12 fins to produce hydrogen, water and electricity. Around half the energy on the E/S Orcelle will be produced by fuel

cells, the hydrogen of which will be replenished by the gas produced through the fins.

The E/S Orcelle' hull would be built as a pentamaran, so that along with four sponsons, it will provide the necessary stability to the ship. The system would eliminate the need to take in ballast water, another key environmental concern, as ballast water picks up aquatic species from one part of the seas and releases them in another part away from their habitat.

(ENS, 06.04.05)

Natural Gas as Bridge towards Clean Energy

Fuel cells are considered the world's future energy source as they can efficiently and cleanly produce electricity, combining hydrogen, the most common element in the universe, with oxygen. Hydrogen is found in fossil fuels, plant materials and water. The process of extracting hydrogen from water is still very expensive, so research is on to use natural gas as an alternative until the process of producing hydrogen from water is affordable and routine.

Also, to make fuel cells affordable in the interim, researchers at the University of Houston, US, and elsewhere are trying to find ways for solid-oxide fuel cells — which operate at a blistering 2,000 degrees, requiring the use of special compatible ceramic material, thus adding to cost — to run at 900 degrees or lower, so that cheaper material like stainless steel could be used.

Analysts have long been pessimistic about when fuel cells will start to be commonplace. But the latest developments are raising eyebrows.

(HBC, 24.06.05)

Renewable Energy in the Third World

The Solar and Wind Energy Resource Assessment (SWERA), a four-year old project coordinated by the United Nations Environment Programme to map the solar and wind resources of 13 developing countries, has discovered thousands of megawatts of new renewable energy potential in Africa, Asia, South and Central America.

The SWERA project has developed a range of new information tools to stimulate renewable energy development, including detailed maps of wind and solar resources. "In developing countries all over the world we have removed some of the uncertainty about the size and intensity of the solar and wind resource," said UNEP Executive Director Klaus Toepfer.

The results have already prompted action in several countries, including Nicaragua, Guatemala, Sri Lanka and Ghana, where more than 2,000 megawatts of wind energy potential were discovered. The other countries where SWERA has carried out surveys are Bangladesh, Brazil, China, Cuba, El Salvador, Ethiopia, Honduras, Kenya and Nepal.

(Insnet,20.04.2005)

Indian Car Rated Best "Ethically"

The Reva G-Wiz, an electric car manufactured in Bangalore, India, topped Britain's Ethical Consumer magazine's list of cars rated according to eco-friendliness and corporate responsibility. The periodical said the two-door hatchback came top of its "ethiscore" which is worked out according to a number of different factors like carbon dioxide emissions, workers' rights, what the company is like environmentally and whether they are involved in arms manufacturing or nuclear power.

Though the vehicle can develop a maximum speed of only about 65 kph its advantage is its cheap operational costs - about Rs 0.05 per km.

(CEN, 14.06.05)

World's First Fusion Reactor

If scientists succeed in building an experimental nuclear fusion reactor at Cadarache in the south of France, it could solve the world's energy problems for the next 1,000 years or more. The International Thermonuclear Experimental Reactor (ITER) project, as it is called, is backed by China, the EU, Japan, Russia, South Korea and the United States, besides France. ITER would have an advantage over the current fission nuclear reactors because it would be cleaner. It would not rely on enriched uranium fuel and it would not produce plutonium, which is a concern from a terrorism point of view as well.

The basic know-how is proven (the hydrogen bomb!) but it would be a huge engineering and technological challenge ("comparable to a man landing on the moon!") to try to accomplish the nuclear fusion in a controlled manner so that the heat created could be used to generate electricity.

The project has enormous potential and could lead to the building of a prototype power station in about 30 years time.

(Reuters, 29.06.05)

"World Record" in Fuel Efficiency

Eidgenössische Technische Hochschule (ETH) of Zurich, Switzerland has developed a prototype automobile, the PAC-Car, which has just set a new world record for fuel efficiency. The lightweight car, weighing in at 30 kgs, operates on a hydrogen-powered fuel cell that produces electricity to run the two motors of the car.

At the Shell Eco-Marathon taking place on the Michelin test track at Ladoux, France, the car finished the course using only 1.07 grams of hydrogen. This converts to about 5134 kilometres per litre of petrol, a new world record in economical fuel consumption. This means that PAC-Car would only use eight litres to drive around the globe!

(IW, 25.06.05)

The Potential of LEDs

With the development of light emitting diodes (LEDs) that produce a white coalesced glow (by combining red, blue and green LEDs), their potential for use in common lighting arrangements has increased manifold. They are about four times as efficient as ordinary incandescent lamps and last about 50,000 hrs, as against about 1000 hrs for the incandescent variety. At present though, they are rather expensive and their use is envisaged only in niche areas, for example where changing bulbs are difficult or expensive as on the outsides of tall buildings or underwater in swimming pools. The application of LED arrays for domestic lighting would increase within a short time, once the technology improves to produce LEDs cheaply.

(AP, 18.04.05)

Lucky Children

The US Environmental Protection Agency (EPA) recently halted a controversial two-year study on the adverse health effects of pesticide exposure on children (babies to three-year-olds). The project offered material inducements to families, especially low-income families, to demonstrate regular use of toxic chemicals in and around their homes.

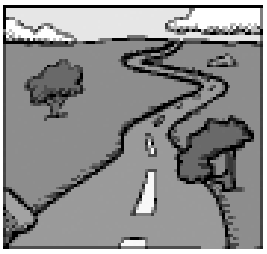
Health experts opposed the study on the premise that it purposely exposed young children to toxic chemicals. However this did not baulk the EPA and the project was halted only on rather selfish grounds when some US senators threatened withholding confirmation of the acting administrator of the EPA.

The American Chemistry Council (ACC), a chemical industry front group, sponsored the study. Critics have pointed out that there would have been little or no short-term adverse effects on the children at the end of the two years of study, and the ACC could then cite these 'positive results' to lobby Congress to ease regulations on those toxic products.

(DTE, 31.05.05)

Green Light for Plastic Roads

The initiative to popularise a simple technology using waste plastics to lay roads has received a shot in the arm with the Central Pollution Control Board (CPCB) of India approving it for wider application.



Research and extensive trials have proved that plastic fills up holes through which water seeps during rainfall. Its binding with bitumen is so good that it acts as a waterproof layer and will be ideal for roads that have to bear the brunt of continuous rainfall. The cheap cost also comes as a great advantage. As per specifications developed by the Thiagarajar College of Engineering at Chennai, India, a km of single-lane road consumes one ton of waste plastic, which is equivalent to one million carrybags.

However, though the technology has proved beneficial, it can be adopted nation-wide only with the approval of the Central Road Research Institute (CRRI). The Indian Centre of Plastic Environment will seek CRRI's approval.

(TH, 09.05.05)

World Environment Day, 2005

World Environment Day with a theme of 'Green Cities' was celebrated in a befitting manner across many countries on June 5. This day is marked every year to commemorate the first environmental summit in Stockholm in 1972.

On the occasion, the United Nations (UN) urged better 'green' city planning to cope with runway urban growth. By 2030, more than 60 percent of the world's population will live in cities, up from almost half now and just a third in 1950, UN Secretary General Kofi Annan said. Growth poses huge problems ranging from clean water supplies to trash collection. "Already, one of every three urban dwellers lives in a slum," he said in a statement, "Let us create green cities." He added that the UN Millennium Goal of halving poverty by 2015 would not be met unless city planning was less haphazard.

(ToI, 06.06.05)

Proposed Law Against Antarctic Pollution

At the 28th Antarctic Consultative meeting on June 16-17, 2005, Sweden has proposed a new international law that would make companies and organisations liable to clean up or otherwise make good, any environmental disaster (such as an oil spill, for example) occurring on Antarctic soil. Under the agreement, organisations would also have to take all possible precautions before being allowed to operate there, which means there will be 'less risk' of a disaster happening.

The proposed liability agreement, which comes after two decades of negotiations, would force the 45 nations that have signed the Antarctic Treaty to introduce such liability laws for companies operating on the continent.

(ToI, 06.06.05)

Brazil's Crackdown on Amazon Criminals

Brazil recently swooped down on 85 'environmental criminals' including high officials, who were accused of allowing the illegal felling of over 1.9m cu.m. Amazon rainforest worth about USD 370m.

Officials were accused of issuing permits classifying swaths of forest as savannah, allowing loggers and farmers to destroy it as though it never existed. Most of the accused were from the province of Mato Grosso where almost half of the deforestation took place. It is being insinuated that much of this land, at least in Mato Grosso, was to be converted to cultivate soya beans (cf: Ecoconsumer, 1-2005, Environment).

(TH, 05.06.05)

Zero-Waste Plan for Tanneries

With the Central Leather Research Institute (CLRI) putting together technology for integrated waste treatment systems for tanneries, the leather industries in Tamil Nadu, India, is all set to become the first in the world to move towards a zero-waste concept. The project envisages setting up secure landfills in combination with central effluent treatment plants to ensure that tannery wastes get treated at the source itself and no discharge from the sludge enters the environment.

The zero-waste goal for Tamil Nadu is creditable as the state has the largest number of tanneries in India - nearly 900, of about 2500 tanneries in the country.

(TH, 04.06.2005)

Cottons that are Toxin Absorbent

Scientists at the Institute of Environmental and Human Health, Texas Tech University, US, unveiled a new composite cotton fabric they say will neutralize and absorb toxic chemicals used in chemical warfare and pesticides. The fabric is to have a predominantly military use.

Hitherto, the US military uses a cloth made from carbon, which leaves skin and other surfaces dirty. In the composite fabric developed, a thin piece of carbon is encased on either side by the non-woven cotton. The fabric passed tests for bacteria, yeast, fungus and mould but has not been tested for anthrax and other potentially deadly biological agents. But enzymes specifically targeting a particular agent can be applied. The textile can be used to

wipe dangerous contaminants from a variety of surfaces, including human skin and intricate equipment on fighter planes. It could also be used as the inner lining of protective suits.

(AP, 06.04.05)

Sheep Urine to Fight Traffic Pollution

A bus-operator in Winchester, Southern England, is road-testing sheep urine to reduce nitrous oxide emissions. A tank fitted to a bus sprays the urine, obtained from farmyard waste, onto the exhaust fumes. The urea in the urine contains ammonia that converts the nitrous oxide into nitrogen gas and water. The managing director, Andrew Dyer, of the company owning the bus answered derisive comments with humour of his own, "There is nothing to worry about. We won't be asking passengers to leave a sample and we won't be carrying a resident sheep at the back of the bus."

(ET, 11.06.05)

World's Biodiversity Declining Alarmingly

The world's biodiversity is declining at an alarming rate, threatening human well-being and future development and requiring important efforts and new thinking on conservation, according to a report presented at McGill University in Montreal, Canada, to mark the International Day for Biological Diversity. According to the report changes in biodiversity due to human activities were more rapid in the past 50 years than at any time in human history, and over the last 100 years species extinction caused by humans has multiplied as much as 1,000 times. Some 12 percent of birds; 23 percent of mammals; 25 percent of conifers and 32 percent of amphibians are threatened with extinction, and the world's fish stocks have been reduced by an astonishing 90 percent since the start of industrial fishing. The report blames biodiversity change on a number of man-made factors including habitat conversion, climate change, pollution and over-exploitation of resources.

(AP, 20.05.05)

Eco-friendly Plastic for Cell-phone Bodies

Japanese firms NEC and Unitika have developed a plastic made out of corn for mobile telephone bodies. The new material, which is 90 percent plant based, is obtained by reinforcing a polyactide resin, a bio-plastic made mainly from corn, by adding in fibres of kenaf, which is a type of hemp. Polyactide resin is already known as a biodegradable plastic but was not subjected to common use, being very brittle and heat-sensitive, conditions that are rectified by the addition of kenaf, to render it to widespread application.

(AFP, 15.06.05)

Bacterial Destruction of Chemical Weapons

At 40,000 tonnes, Russia houses the world's largest stockpile of chemical warfare agents. The country faces a race against time to dispose of the stockpile by 2007, in accordance with the Chemical Weapons Convention (CWC). This disposal must be achieved in an ecologically sound manner.

Toxic by-products contained in reaction masses (RMs) arise when mustard gas is destroyed by chemical detoxification (a procedure developed in response to the CWC). Currently, incineration or a process called bitumenisation are employed to deal with RMs. However both methods are highly expensive and pose environmental risks. Research in Russia has found that a bacterium called Pseudomonas putida - one of nature's most versatile micro organisms - could help to cheaply mop up the toxic by-products caused by the destruction of chemical weapons.

(EnT, 10.05.05)

UNEP's 'Champions of the Earth'

The United Nations Environment Programme (UNEP) has named seven leaders in the field of the environment as 'Champions of the Earth' for "setting an example for the world to follow". The awards - for outstanding environmental achievers and leaders from each region of the world - will be presented to:

- The King and people of Bhutan
- Sheikh Zayed Bin Sultan Al-Nahan of the United Arab Emirates (posthumously)
- President Thabo Mbeki and the people of South Africa
- His All Holiness Ecumenical Patriarch Bartholomew
- Julio Carabias Lillo, former Environmental Minister of Mexico
- Sheila Watt-Cloutier of Canada, President of the Inuit Circumpolar Conference
- Zhou Qiang and the All-China Youth Federation.

(UNEP, 14.04.05)

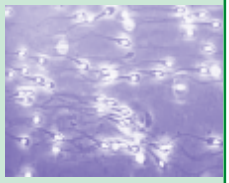
Fertilizers Harm Freshwater Lakes

Farmers' routine application of chemical fertilizers and manure to the land poses a far greater environmental problem to freshwater lakes than previously thought, potentially polluting the water for hundreds of years, according to a US-based research published recently. Phosphorus in the fertilisers build up in the soil and slowly end up in many lakes, where the nutrients lead to plant and algae growth in the water. The environmental problem, known as eutrophication, can turn pristine lakes into smelly, weed-filled swamps with a lot of dead fish. The report blames the build up largely on industrial agriculture's excessive use of fertilizer and manure in that country since the 1940s. The study concludes that major changes in soil management are needed to reverse the trend. It may add urgency to the US government's efforts to stop phosphorus from fouling up lakes and streams. This could also well be a harbinger of things in third world countries like India.

(AP, 14.06.05)

Pesticides Cause Fall in Male Fertility?

Pesticides and other man-made chemicals may lower male fertility for at least four generations, according to new research. Pregnant rats exposed to fungicide sprayed on vineyards and pesticide sprayed on crops had male offspring with a sperm count reduced by 20 per cent. If confirmed by further experiments, the findings could help explain the decline in human male fertility over the past 50 years



(TI, 03.06.05)

Wheat wonder

The juice of 'wheat grass' - wheat plants less than a week old - can help reduce the agony of terminally cancer patients by increasing their haemoglobin level, says researchers of Netaji Subhas Chandra Bose Cancer Research Institute, Kolkata, India. They studied 200 subjects suffering from end-stage cancers, who were given two tablespoons of wheat grass juice daily for two months and found significant improvement in the mean values (in blood) for haemoglobin, albumin and protein. The patients also developed a sense of well being following the wheat grass treatment. They believe its low cost, too, should make it popular.

(DTE, 31.05.05)

Global Warming Will Increase World Hunger

Global warming is likely to significantly diminish food production in many countries and greatly increase the number of hungry people, the U.N. Food and Agriculture Organization (FAO) said. According to FAO, scientific studies showed that global warming would lead to an 11 percent decrease in rain-fed land in developing countries and in turn cause a serious decline in cereal production.

(Reuters, 27.05.05)

GM Foods

Safe: WHO

The consumption of genetically modified (GM) foods has not caused any known negative health effects to date, the World Health Organisation (WHO) says in a report. Still, the UN agency stresses the need for safety assessments before new transgenic crops are marketed, to prevent risks to human health and the environment. GM foods can contribute to enhancing human health and development, the WHO report says, but "some of the genes used to manufacture GM foods have not been in the food chain before and the introduction of new genes may cause changes in the existing genetic make-up of the crop."

WHO finds that transgenic foods can increase crop yield, food quality and the diversity of foods than can be grown in a given area. This in turn can lead to better health and nutrition, which can help to raise health and living standards.

(ENS, 23.06.05)

Unsafe: Secret Monsanto Study

The Independent has revealed details of a secret research carried out by Monsanto, the US-based GM food giant, which shows that rats fed modified corn had smaller kidneys and variations in the composition of their blood, that were absent from another batch of rodents fed non-GM food as part of the project.

Doctors said the changes in the blood of the rodents could indicate that the rat's immune system had been damaged or that a disorder such as a tumour had grown and the system was mobilising to fight it. Dr Michael Antoniu, an expert in molecular genetics at Guy's Hospital Medical School, UK, described the findings as "very worrying from a medical point of view", adding: "I have been amazed at the number of significant differences they found (in the rat experiment)."

(TI, 22.05.2005)

Spain's Hi-tech Rain-making Experiment

Spain is turning hi-tech to increase rainfall on the country's parched Mediterranean coast. Replicating experiments already under way in Israel, scientists from Spain, Belgium and Israel are using a special heat absorbing fabric to try and create "islands of heat" that would accelerate air currents and favour the formation of rain clouds.

The scientists are, in effect, trying to imitate a pattern commonly observed in cities as shown in satellite images. The concentration of concrete and asphalt makes city air warmer than surrounding areas. The hot currents rise, blow and clash with cooler suburban air and under the right conditions form rain clouds.

(TH, 29.06.05)

Fervour for Raw Food

David Wolfe and Thor Bazler, from San Diego, US, are propounding the consumption of plant food in their virgin raw state. Both men say they saw dramatic improvements in their energy and well-being after adopting a raw diet. Through their company Nature's First Law they are selling books and products to further their ideas.

The raw-diet theory is that cooking robs food of some of its life force and that processing can add harmful ingredients. Devoid of some natural elements, like water and certain enzymes, cooked or processed food cannot provide its full nutritional potential. Although raw-food diet isn't new, the fervour surrounding it has grown recently.

The American Dietetic Association said the promotion of fruits and vegetables is positive. However, strict adherents to the raw-food diet may have difficulty getting adequate nutrients and could have problems with bone density.

(SDUT, 15.06.05)

Gorbachev on Water and Sanitation

Mikhail Gorbachev is pressing world leaders to adopt a treaty guaranteeing clean water and sanitation for their people, a task he says is more daunting than ending the nuclear arms race during the Cold War. He envisions a binding agreement that makes access to water and basic sanitation a human right, holds nations responsible for providing it and governs how freshwater resources are managed and shared.

About 2.5bn people worldwide lack water sanitation services, and 5mn die from waterborne diseases each year, according to Global Green USA, the American arm of Green Cross, the organisation founded by him. Nearly 1.2bn people do not have clean water to drink.

(AP, 18.04.05)

One in Six Countries Facing Food Shortage

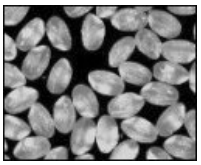
In a stark warning, Wulf Killman, chairman of the UN Food and Agriculture Organisation's (FAO) climate change group has said that, one in six countries in the world face food shortages this year because of severe droughts that could become semi-permanent under climate change. The droughts that have devastated crops across Africa, central America and south-east Asia in the past year are part of an emerging pattern.

FAO and the US, both of which monitor global food shortages, agree that 34 countries are now experiencing droughts and food shortages and others could join them. Up to 30 million people will need assistance because of the droughts and other natural disasters such as the Asian tsunami.

(Guardian, 30.06.05)

Rice Variety 'Fortified' with Vitamin A

Researchers from the UK and US have genetically engineered a new variety of 'golden rice' that they claim will help fight vitamin A deficiency, which affects millions of children, especially in the developing world. Called 'Syngenta Golden Rice', the new strain showed an increase in total cartenoids - substances that change into Vitamin A in the liver - of up to 23-fold (up to 23 µg/g of rice) compared to the earlier variety, according to a report in Nature Biotechnology.



But critics say that the new strain is a mere ruse to increase the acceptability of genetically modified crops. It remains to be seen whether the cartenoids will be destroyed on cooking and how much will be absorbed on eating the rice, they point out.

(DTE, 15.05.05)

CSOs Urge Against Corporatisation of Water

Alarmed by corporate moves to treat water as just another market commodity, leading civil society organisations (CSOs) are urging the international community to adopt a new universal treaty to protect the right to water.

The right to water is mentioned in a number of international legal documents, such as the Action Plan adopted by the U.N. Water Conference in 1977, etc. In November 2002, the U.N. Committee on Economic, Social and Cultural Rights also affirmed that access to adequate amounts of clean water for personal and household use is a "fundamental human right of all people." However, there is no international instrument that guarantees to every person the right to affordable water.

(Insnet, 28.04.2005)

"Protect Crops Vital to Food Security"

Rich World Trade Organisation (WTO) members are threatening the livelihoods of poor farmers in developing countries by walking out on a promise to exempt vital food crops from tariff cuts, according to a new report by international charity Oxfam. The report calls for crops vital for food security and livelihoods in developing countries to be fully exempt from tariff reduction in ongoing WTO negotiations.

Oxfam notes that the World Bank and the International Monetary Fund have posed a threat to food security since the 1980s because of loan conditionalities requiring agricultural liberalisation. A proposed 'Harbinson' tariff-reduction formula would force developing countries to slash rice tariffs, they point out, which would add to the problems caused by tonnes of US rice which they say has been dumped on world markets after being highly subsidised.

(TH, 11.04.05)

Against the Grain

Some residents of the Peruvian capital Lima's poorest neighbourhoods, united in the 'Frente de los Sin Agua' (People Without Water), are demanding privatisation of potable water and sanitation services because they say the government has badly let them down.

In many areas the homes have electricity, telephone and even cable television, but nobody has household potable water service. Everyone has to buy water from tanker trucks.

These people have taken the cue from two neighbouring Latin-American countries - Argentina and Bolivia. However, independent analysts say the international experience with privatisation of water services in Argentina and Bolivia, as well as in South Africa and Britain was negative, and led to increased rates. Others, such as trade unions, oppose the idea for fear of losing jobs. All in all, this issue is expected to be hot topic during the Peruvian general elections next year.

(Insnet, 02.06.2005)

Kudos to Sub-Saharan Africa on MDGs

The 'Millennium Campaign' (MC) being pushed by the United Nations to advance moves towards the Millennium Development Goals (MDGs), has reported real progress towards many of the goals in sub-Saharan Africa. Some figures:

- Half of the 48 countries in the region are growing faster than the European Union.
- Ten countries are on track to get all children to school by 2015 (the target date set to achieve the MDGs).
- Uganda has reversed the spread of AIDS.
- Mozambique is on track in meeting the target to curb child mortality.
- Tanzania is on track to provide safe water for all.
- Rwanda now has a higher percentage of women in parliament (48 percent) than the Nordic countries.

This, in spite of reluctance on the part of some developed countries to part with the funds they had promised by way of aid.

(Insnet, 05.05.05)

Rice with a Human Touch

In the first case of its kind, Japanese scientists have incorporated a human gene obtained from the liver, which is particularly good at breaking down harmful chemicals in the body, into the rice genome to evolve a variety resistant to as many as 13 herbicides.

Usually genetically modified (GM) foods have inserted in them genes derived from bacteria. Such GM strains are normally resistant to only one particular herbicide. Only this herbicide can be used to remove the weeds while protecting the plant. The weeds however often develop resistance to the herbicide with repeated use, and changing it would require development of a different strain of the plant. With the new Japanese strain, however, weeds can be kept down by constantly changing the herbicide with no adverse effect on the plant.

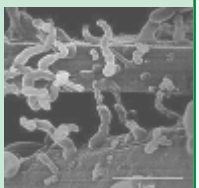
The move has expectedly kicked up a controversy. Some even aver that it would be suggestive of cannibalism!

(DTE, 15.06.05)

Disease from the Skies

Prof Chandra Wikramasinghe a respected scientist in astronomy from Cardiff University, UK, has declared that nanobacteria present in clouds are responsible for the spread of such diseases as AIDS, kidney stones and heart disease around the world.

Nanobacteria are the smallest known self-replicating bacteria, about 100 times smaller than regular bacteria. Prof Wikramasinghe's assertions are receiving corroborations from other scientific sources and the scientific community is slowly recognising the role of nanobacteria in these diseases.



(ENS, 11.04.05)

Project Overview

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Farmers' Rights Project-II

The biodiversity of the South Asian countries was refocused in deliberations on Access and Benefit Sharing and Prior Informed Consent issues, organised by CUTS-CRC. It was an effort to assess how to protect community knowledge and resources from the shadow of multinationals. Whereas it is necessary to commercialise traditional knowledge to exploit greater returns from the market, it is also important to ensure the returns for the communities who have been nurturing the knowledge for ages.

As it is necessary for farmers to protect their interests at the government level, an effort was made in the workshop to bridge the gap between policy makers and the grassroots people. Various stakeholders including members of academia, representatives of CUTS, NGO professionals, and the media participated in the workshop.

The resource persons explained issues related to the impact of WTO agreements on farmers' rights to livelihood, the importance of agro-biodiversity in the livelihood of mountain communities, importance of traditional knowledge and indigenous medicines etc.

Participants drew special attention to the absence of proper infrastructure to percolate down information on the changing economic scenario.

A resolution was also passed in the workshop protesting the Seed Bill, 2004, which was sent to the Parliamentary Standing Committee on Agriculture.

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