

Tenth Conference of the UN Framework Convention on Climate Change

The year 2004 was a significant one for the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. The year marks the 10th anniversary of the UNFCCC and, as such, many have been looking back with a sense of accomplishment at the progress made over the past decade. In addition, much of the world celebrated when Russia ratified the Kyoto Protocol, ensuring the continuity of mitigation efforts into the next decade as the Protocol enters into force in February, 2005.

To make sure that the 'house' is in order for the Protocol's imminent entry into force and to complete the unfinished business from the Marrakesh Accords, the tenth Conference of Parties (COP-10) to the UNFCCC was held at Buenos Aires, Argentina, from 6-18 December, 2004. During the meeting, Parties took numerous decisions regarding: technology transfer, land-use, forestry, UNFCCC's financial mechanism, capacity building, etc.

COP-10 provided an opportunity for delegates to reinforce the two main building blocks of the policy response to climate change: mitigation and adaptation. With climate change impacts being obvious, it is apparent that, in addition to mitigation, adaptation is also crucial, and countries will need to spend considerable amounts of money to adapt to climate change and face extreme weather events.

Least developed countries (LDCs) failed for the second consecutive year to have full-cost funding of adaptation, through the Global Environment Facility (GEF). They were rather dismayed at this decision because the LDC Fund as now being disbursed through the GEF, is available to alleviate only the incremental harm that would be caused by climate change. Adaptation is an integral part of development, and as such, no project directed at adaptation would fall squarely within the scope of the UNFCCC, but would rather have components that include other aspects of development, such as disaster preparedness, water management, desertification prevention, or biodiversity protection etc. For any development project therefore, LDCs will have the difficulty of finding adequate co-financing. Moreover, costly and cumbersome calculations are involved to arrive at the 'additional' cost, so much so that the LDC Fund, in practice, is almost inaccessible. Clearly the LDCs lack the bargaining power of oil producing countries and large greenhouse gas emitters!

The recently released report of the UN High-Level Panel

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CUTS International

4/2004 (Oct.-Dec.)

on Threats, Challenges and Change underlines that countries must take action and commence negotiations for long-term strategy to address climate change. Moreover, the Kyoto Protocol requires that Parties initiate consideration of post-2012 commitments by 2005. The challenge presented to delegates at COP-10 was how to engage non-Parties to the Protocol in this process and how to ease the concerns of many developing countries regarding the imposition of new commitments. Several NGOs urged delegates to move ahead without non-Parties to the Protocol in the hope of raising the lowest common denominator of consensus and promoting more progressive future commitments.

After intense negotiations it was decided to have a seminar by government experts in 2005 prior to COP-11 that would not open negotiations to new commitments. The purpose of the seminar would be to promote an informal exchange of information on actions relating to mitigation and adaptation to assist Parties to continue to develop appropriate responses to climate change, and on policies and measures adopted by governments that support implementation of Parties' existing commitments

under the UNFCCC and the Kyoto Protocol. The outcomes of the seminar, according to one expert, will ultimately depend on the skills of the organisers to bring together Parties in an environment that enhances both trust and frank exchange of views and perhaps moves forward the technical foci of COP meetings. Some NGO's and scientists have voiced concerns that the process may lack transparency and called for wider civil society access. As it stands now, only governments can participate.

The outcome of the meet was not only a victory for Argentina, but was also an important internal policy marker for some Parties. Although many issues remain unresolved, much has been achieved in the past ten years. However, what has become crystal clear at COP-10 is that some Parties are not yet ready for post-2012 negotiations



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Ozone Threat to Crops

Lisa Emberson of Stockholm Environment Institute, Sweden has developed a method to calculate the amount of ozone that crops absorb with respect to specific species and environmental conditions like growing season, drought, humidity etc. Along with these factors, the ozone concentration determines the survival rate of a plant. The study in the UK shows that the increased ozone concentration has damaged \$ 126 mn worth of wheat and \$ 25 mn worth of potato.



This study only includes the effect on the yield, when the other detrimental effects are leaf injury or the poor grain quality. Study was also undertaken to estimate the effects on other ozone sensitive crops.

In the UK, industrialisation has a dangerous effect on ozone concentration, which has risen from 10/15 parts per billion (ppb) in pre-industrialisation period to 30 ppb in post-industrialisation period. Considering the projected increase in the green house gases, the agriculturists have to be serious in this respect.

(DTE 15.11.2004)

Bangladesh to introduce GM Crops

The genetically modified (GM) crops are to be introduced in land strapped Bangladesh to meet the growing demand for crops from the growing population. At the initial stage the National Agricultural Research System (NARS) will take up four crops. They are drought and saline tolerant rice, late blight resistant potato, fruit and shoot borer resistant eggplant and pod borer resistant chickpea.

At particular NARS institutes such as Bangladesh Rice Research Institute and Bangladesh Agricultural Research Institute steps will be taken to set up 'containment facilities', which prevents any jumping of modified genes to nature. At least after two years, the seeds, developed in these institutes, are expected to be commercialized.

(WTR, 16.10.04)

Importance of Biodegradable Plastics

In a seminar on biodegradable plastics at Crescent Engineering College, Vandalur, Tamil Nadu, India, the importance of the proper disposal of plastic material has been highlighted. According to R. Vasanthakumari, of the college, the research work is going on to develop environmentally degradable or ecofriendly plastics.



P.L.Nayak, of Ravenshaw College, Cuttack, Orissa, India, addressed the growing environmental awareness about the use of plastic materials and developments taking place in India in producing eco-friendly polymeric materials. He also highlighted the need for producing the materials using agriculture feedstock rather than petroleum feedstock.

(TH, 09.10.04)

Chinese Fish to Clean Up Dal Lake

For years men and machines have toiled to clean up Kashmir's mirror-calm Dal Lake to remove choking weeds, lily pads and other water plants that have tarnished the image of the famed tourist attraction. But scientists in the Indian Himalayan region have hit upon a new low-cost

idea: flood the dying lake with thousands of weed-eating Chinese grass carp. The fish is a voracious herbivore and an adult specimen can grow up to 30 kg.

Weeds have flourished because of the large amounts of waste flowing into the lake, which once covered 30 square km, has shrunk to half that size over the past four decades because of silt, weeds and development. The carp will be able to control the growth of weeds, but the plants won't completely vanish from the whole lake.

(Reuters, 21.11.04)

Biofertilizer for Crop-growth

Most of the Indian soils are deficient in available forms of phosphorus and this is made good by phosphatic fertilisers. Use of applied phosphorus rarely exceeds 30 per cent due to its fixation either in the form of aluminium or iron phosphate in acidic soils and in the form of calcium phosphate in neutral and alkaline soils. Various micro-organisms such as bacteria, actinomycetes, cyanobacteria, fungi and yeast (collectively known as phosphate solubilising micro-organisms - PSB, for short), which are well distributed in several ecosystems, help dissolve the salts for absorption by crops.

Beneficial influence of artificial inoculation with PSB has been recorded for different crops under diverse agro-climatic conditions. For example, a large increase in yield was observed in a particular instance in Andhra Pradesh, India, when the soil was inoculated with 'Bacterium P' as tricalcium phosphate solubilising agent.

(TH, 21.10.04)

Promising Use for Jute in Rural Roads

With intense competition from synthetics in its traditional domain of sacks, gunny bags and twine, the jute industry is severely in need of resuscitation and any development of alternative use is welcome. Towards this end, the Jute Manufacturers Development Council, National Rural Roads Development Agency and the Central Road Research Institute, have jointly taken up a pilot project for rural road construction in India, using jute geo-textiles. Though the basic technology is known since the 1980s, it is only now that it is being taken up with any amount of seriousness. The existing technology is however only suitable for rural roads where the traffic is comparatively sparse.

In case the project takes off it is sure to bring cheer to the jute mills, more so because they can take up the manufacture of geo-textiles without any major modification to their equipment. Incidentally, the European countries also offer a ready market for eco-friendly modes of laying roads.

(TH, 25.10.04)

Fires Down Under

In Australia's remote Northern Territory, traditional Aboriginal burning practices hold vital lessons for the American West. Near the tiny settlements or "outstations" that serve as their home bases, Aborigines still burn on a regular basis, and wildlife survives. Plant and animal diversity is abundant.

Within weeks of the fires set by residents, scorched areas sprout carpets of new greenery and attract numerous Kangaroos, which fatten on the new growth and later can be hunted.

Species such as partridge, pigeon and the northern quoll, a meat-eating marsupial, have declined or disappeared throughout most of their range but remain abundant near the settlements. Wild fruit trees flourish.

The 'Binini', as the native people here call themselves, accomplish all this in ways that most white, or 'Balanda', fire managers believe to be impossible. David Bowman, fire ecologist at Charles Darwin University, who is studying these practices, feels that "There is a research emergency out there. This the last chance to study native burning."

(OE, Dec, 2004)

Jumbo Effort

Maximus, a company of Sri Lanka uses elephant dung to make paper and reap profits. It is the brainchild of Thusita Ranasinghe, who gathered the idea from a Kenyan article, which extolled a game ranger's experiments on elephant dung. According to Ranasinghe, an elephant eats 200 kg of food and defecates 16 times a day. Hence dung is never in short supply!



Meanwhile Wanchai Aswawibulkji of the Thai Elephant Conservation Centre has also discovered similar use of elephant excrement to make paper. The finished product looks much like mulberry paper and is 100 per cent environment friendly.

(Insight, Nov-Dec 2004)

Trips Council Considers Public Health, Biodiversity

Public health and biodiversity-related concerns emerged as major issues at the year's final meeting of the WTO Council for Trade-related Aspects of Intellectual Property Rights (TRIPS) on 1-2 December.

At the meeting, Nigeria submitted a proposal on behalf of all African WTO Members for converting the waiver provided for in the 30 August 2003 Decision on Pharmaceutical Patents into a formal amendment of the TRIPS agreement. Many developed countries criticised the Nigeria-led proposal, arguing that it sought to re-open the debate on the substance of the decision and would only complicate current discussions. The supporters of the proposal countered that the suggested text was only an attempt to simplify the complex nature of the waiver.

In the session on Biodiversity, Traditional Knowledge (TK) and Folklore, an attempt was made to move the substantive debate forward on the relationship between the TRIPS Agreement, biodiversity issues and TK with a new proposal submitted by Bolivia, Brazil, Cuba, Ecuador, India, Pakistan, Peru, Thailand and Venezuela.

(BW, 8.12.2004)

Ethanol and Plastics from Harvest Waste

In the US, as elsewhere, urgent research is on to find viable substitutes - from both environmental and economic considerations - for petroleum and its derivatives. Ethanol has long been anointed as a substitute but is costly to make, produced as it is from sugar and starchy grains, typically corn.

In a major breakthrough, scientists in the US have developed a process for utilizing harvest wastes like corn stalks, wheat straw and other forms of biomass, remaining after each harvest, into ethanol. Before fermentation to produce ethanol, an intermediate step of hydrolysis is required for these harvest wastes, involving cellulosic enzymes. The cost of the enzyme has been reduced and efforts are on to bring it down further.

A pilot plant using the technology is to come up shortly and the proponents of the process envision a series of refineries using biomass as its feedstock instead of

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petroleum, across the mid-American prairies. What's more, a biodegradable plastic is expected to be a by-product.

(ENN, 15.11.04)

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Eco-friendly Water Bottle Commercialised

In the southwestern Colorado city of Ouray, USA, David Zutler bottles spring water in special corn-based bottles that disappear after three months in a landfill, or more quickly through incineration or recycling. This landfill decomposition rate compares very favourably with the roughly 700-year decomposition rate required for petroleum-based bottles. What's more, the corn-based bottles not only decompose quickly, but they burn clean and can be a fuel source.



When Zutler originally pondered a biodegradable bottle, the cost was high. Now, with oil above \$50 a barrel, the cost of using corn is roughly even with petroleum-based bottles.

(ENN, 4.11.04)

Scientist Uses Whey to Protect Food

Oxygen, water, seeping oils — they're all out to get your food, turning sweet nuts sour and tasty confections rancid. Food scientist John Krochta of the US, is fighting back with an unlikely weapon: edible food coatings derived from whey, the dairy byproduct favored by protein-conscious athletes and Miss Muffet.

The protection, which can either come as a smooth, glossy coat or a thin, plastic-like film, can be used to make all kinds of foods spoilage resistant, reducing the amount of packaging needed and finding a use for a byproduct that now ends up mostly in low-value products or is thrown away. (Well, certainly not in a country like India, though: it is too important a part of the diet!)

(AP, 16.12.04)

Unsustainable Fishing Can Kill Land Animals

The fishing industry in the EU is breeding unsustainable hunting practices in Africa! As far-fetched as it may sound, a report published in the journal 'Science' shows how food habits in one part of the world affect nature and people in faraway lands.

The EU is today catching twenty times more fish off the West African coast than it did in 1950. Working in Ghana, researchers have found that this over fishing has driven up local fish prices and decreased availability. As a result, locals have turned to bushmeat for sustenance. So much so, that it is turning out to be one of the biggest threats to many species, including some of our closest primate cousins, 45 per cent of which have become locally extinct.

(ENN, 17.11.04)

Apple Delight

Scientists at the Sri Ram Institute (SRI), New Delhi, India, have used gamma irradiation to increase the shelf life of apples to eight months. The radiation slows down the process of ripening by reducing the levels of the fruits enzymatic reactions. Normally apples remain unspoil for 4-5 months when cold-stored at about 4°C.

The technique will help prevent spoilage, as well as make the fruit available throughout the year and fetch farmers rich dividends.

(Insight, Nov-Dec 2004)



Moving forward with Kyoto

The Russian Parliament has ratified the Kyoto Protocol on reducing green-house gas (GHG) emissions, clearing the way for the pact's entry into force.

Under the 1997 pact, the protocol could take effect only when countries accounting for at least 55 per cent of emissions ratify it, and Russia has helped it cross that threshold. The US, responsible for about 35 per cent emissions, is of course the most prominent dissenter (as also Australia). The US hold that reduction of GHG across the board would be detrimental to their interests and stress on developing need based GHG reduction technologies. They also have objections to the absence of targets for developing countries especially India and China. The developing countries are also supposed to reduce emissions but without any set targets.

India, China and other developing countries have set up administrative structures to take advantage of the Clean Development Mechanism, a market instrument created by the Kyoto Protocol. Popularly known as 'Carbon Trading' this encourages transfer of eco-friendly processes and technologies to developing countries by developed countries, which can use this mechanism to meet their emission reduction targets.

(TH 23.10.04, 27.10.04)

Foes freeze enmity for better freezing !

With Greenpeace and Unilever it has always been confrontation in the matter of refrigerants. The former have been campaigning to phase out HFC gases (which were themselves replacement for the earlier CFC gases that damaged the earth's ozone cover) that, though were benign towards the ozone layer, contributed to global warming, and wanted these replaced with hydrocarbons (HC) like propane. Towards this end, they developed their own 'greenfreeze' technology for domestic refrigerators.

As part of its 'green' commitment Unilever became interested in the idea and conducted trials to use the technology in the larger ice-cream cabinets. Though Greenpeace were initially up in arms at what they perceived as dilly-dallying on the part of Unilever in the name of testing, they soon warmed up to the project, providing valuable inputs and technical leads so that the 'green' ice-cream cabinets could be put to commercial use well ahead of schedule.

(FT, 18.11.04)

Some statistics on global warming

- The planet's temperature has risen by 0.6 °C over the past 100 years.
- In the last 25 years, the rate of increase of temperature has become greater than it was in the last century.
- Carbon Dioxide levels in the world today are the highest in 440,000 years(!)
- Eight of the ten warmest years on record have been in the past twelve years; the summer of 2003 in Europe was the hottest ever.
- According to one estimate, at the current rate of warming, sea levels will rise by one metre in the next 100 years. A contrary estimate, however, puts the figure at just 20 cm.
- On a 10-year view, the frequency of weather disasters has tripled since the 1960s.



Tuvalu: Threatened Island Nation

Due to global warming, the most threatened country in the world is the tiny pacific island-nation of Tuvalu (population 10,000). Saufatu Sapo'aga, the Prime Minister, has complained to the UN that Tuvalu could disappear under water within a few decades if something was not done to slow down global warming. He said that the global warming threat "was a slow and insidious form of terrorism against us." The question is, should Tuvalu sue the US and Australia, the two biggest contributors to global warming and the only two developed countries not to ratify the Kyoto Protocol. Why should Tuvalu's inhabitants - who neither emit substantial amounts of polluting gases nor consume much energy - pay with their disappearance for the omissions and emissions of others?

(TOI, 9.11.04)

Poor already hit by Climate Change

According to a report from a new coalition of Oxfam, Christian Aid, WWF, Greenpeace and eleven other organisations working to relieve poverty in more than hundred countries, changes in rainfall patterns and an increasing number of weather related disasters such as floods and droughts are forcing poor people into destitution, and makes the dire warning that "decades of progress and development can be wiped out overnight."

The report compiled by the 'New Economic Foundation' (NEF) think tank based on field surveys and the projections on climate, says that poor countries will be affected by man-made climate changes more than the rich countries. "Climate change is the mother of all ecological debts owed by the north to the south. If we let economic development to continue based on the profligate use of fossil fuels, we'll be reaping the financial and environmental impact of that," said an NEF spokesman.

(TH, 22.10.04)

UK will Fail to Meet Emission Target.

The jubilation over Russia's ratification of the Kyoto Protocol paving the way for its operation from Feb 16 next year, is tempered by the announcement of the United Kingdom that it will not be able to meet its self-imposed emission reduction targets for this year. This is a sobering thought, coming as it does from one of the countries trying to position itself as an international leader on climate change. Sticking to the tenets of the Kyoto Protocol will obviously be no cakewalk but the world must strive relentlessly to avert what is being perceived in many quarters as imminent catastrophe from global warming.

(FT 9.12.04)

Southern Annular Mode (SAM) expected to change

National Aeronautical and Space Administration (NASA) report suggests that the South Polar region will warm in the next 50 years, reversing the trend of its cooling over the last 30 years caused by depleted ozone levels in the stratosphere and climate change.

These factors promote a positive phase of a shifting atmospheric climate pattern in the Southern Hemisphere, called the Southern Annular Mode (SAM). A positive SAM isolates colder air in the interiors of Antarctica. But in the coming decades, ozone levels are likely to recover somewhat due to international treaties, which might have a reverse impact on the SAM, promoting a warm and negative phase.

(DTE, 15.11.04)



Japanese GHG Reduction Fund

Two Japanese Government banks and 31 private companies have founded a \$141.5 m fund to help Japan achieve its mandatory target for reduction of greenhouse-gas (GHG) emissions under the Kyoto Protocol. The fund will invest in 30 to 40 forestation and other sustainable development projects in developing countries and acquire GHG emission credits for sharing among the fund investors that will help achieve the national target under the so-called Kyoto mechanism

Meanwhile Japanese firms are stepping up preparations, such as trial runs to make employees familiar with carbon trading, ahead of the implementation in February of the Kyoto protocol.

(KNI, 5.11.04 & 1.12.04)

Everest Climbers Warn about Global Warming

The youngest and fastest men to climb Everest, Temba Tsheri Sherpa and Pemba Dorji Sherpa, have called on UNESCO to place Sagarmatha National Park on the World Heritage Danger List because of the rapid impacts of climate change on the region. They have warned that unless suitable action is taken urgently, many Himalayan lakes could burst, threatening the lives of thousands and destroying an irreplaceable environment.

(FOE, Nov, 04)



Money to be Made in Carbon Trading

Capital markets can save the planet from global warming - and earn billions for financial institutions at the same time. Banks and brokerages are piling in to trade in 'pollution permits,' an increasingly prized commodity as regulation tightens. The plan is for big companies to be given an 'allowance' of carbon they can emit. If a company exceeds its permitted pollution quota, it will face a fine. If, on the other hand, it beats its allotted target, it can sell the remainder of its allowance to other firms, which can extend it to extend theirs.

India has significant potential in carbon trading. With the price of carbon credits having more than doubled since Russia ratified the Kyoto Protocol, it presents an opportunity for Indian firms in the fertilizer, power, cement, steel, paper and pulp and other energy intensive sectors to improve revenue earnings by selling credits.

(TH, 16.10.04 & ET 9.12.04)

Global Warming Reduces Genetic Biodiversity

For the first time, scientists have found a direct relationship between global warming and the evolution of contemporary wild life. Scientists from the US-based Stanford University have conducted a genetic analysis of DNA collected from living animals and dead fossils of two species of rodents - the montane vole and the northern pocket gopher.

The researchers analysed the animals/fossils from two climatic events - the medieval warm period (850-1350 A.D.), and the little ice age (1350-1950 A.D.). The research revealed that, in line with the animals' preference for relatively wet grasslands, the population of both species declined during the medieval warm period when their habitats dried up, and increased during the little ice age when the climate was wetter. It was also found that in the case of gophers, shrinking population caused inbreeding so that later generations ended up with similar DNA and the same

vulnerabilities to disease and external threats. However, in the case of voles, no reduction in genetic diversity was observed in spite of reducing population. As per the researchers, that is because voles routinely look for mates from other colonies.

(DTE, 15.10.04)

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Arctic Climate Warming Rapidly: Study

The Arctic Climate Impact Assessment (ACIA), a four-year study carried out by the United Nations Environment Programme provides clear evidence that Arctic temperatures are rising at almost twice the global average and could leap 4-7 °C by 2100, which could wipe out polar bears and threaten the livelihood of millions of people. Possible benefits like more productive fisheries, easier access to oil and gas deposits or trans-arctic shipping would be outweighed by threats to indigenous peoples and the habitats of plants and animals.

The findings of the study are significant because the Arctic region provides a barometer of climatic change and is considered an early warning system on environmental warming worldwide.

(ET, 8.11.04 & TH, 13.11.04)

Climate Change has Insurers Sitting Up

Consider this: four back-to-back hurricanes struck Florida (USA) in a single season this year; Europe experienced its hottest summer on record in 2003; the super-cyclone over Orissa (India) caused destruction beyond imagination. Mother Nature seems to be fairly bursting with surprises. A large portion of the financial brunt of Mother Earth's 'surprises' is borne by the insurance companies. On a 10-year view, the frequency of weather disasters has tripled since the 1960s and insured losses have risen 10-fold, according to Munich Re, the world's largest re-insurer.

Many experts are ascribing all this to global warming, though this is far from being an established fact; hurricanes are especially hard to assess. Insurers are therefore constantly updating their disaster models. However, predicting climate change and its effects in the future is harder than simply reacting to volatility today. The uncertainty will surely be reflected in higher premiums on policies.

(ET, 6.10.04)

The "Myth"(!) of Global Warming: Politics at Work?

Climate change is "a myth," sea levels are not rising, and catastrophe doomsayers are "an embarrassment". These are the controversial views of a London-based think tank The International Policy Network. The report goes on to say that global warming may actually be beneficial by increasing fish stocks. Environmentalists are naturally aghast.

The content and timing of the report are interesting. The Network has intimate links with the Washington-based organisation, the Competitive Enterprise Institute, which is run by one of the top climate advisers of the US President and the report closely mirrors the views held by the President and his senior advisers. It also comes on the eve of the British Prime Minister assuming the leadership of the G8. The Prime Minister has described global warming as "the single, biggest long-term issue" facing the world and professed to use his position in the G8 to try and halt it.

(BL, 28.11.04)

A Source of Cheap Electricity

Ajay Sood and his student Shankar Ghose, at the Indian Institute of Science, Bangalore, India, have produced electricity by passing a jet of gases emitted by automobiles over a variety of materials. Even though the current generated was minuscule, their success story is about to appear in Physical Review Letters, the prestigious journal of American Physical Society, in the coming issue for its usage of low cost technology.

The physicists have also applied for the patent on the method, which produces electricity directly from the flow of gases. Observing that the sensor, based on the generated electricity signal, can be made to measure the 'flow velocities' of gases, they claim that the gas flow energy can be converted directly into the electricity without any moving part. This observation gives rise to the possibility of generating electricity by using powerful winds without any windmills or turbines.

(TOI 18.08.2004)

Spinach Power Adds Muscles to Batteries

Literally!...Scientists at the Massachusetts Institute of Technology, the University of Tennessee, the US Naval Research Laboratory and the Defense Advanced Research Projects Agency have jointly found a way to harness the power that plants use in photo-synthesis to convert light into energy. And their working substance happens to be spinach (chosen for its high chlorophyll content and low price) liquefied in a centrifuge! They are using the process to extend the life of batteries in cell-phones, laptops etc.



The researchers have claimed that this is the first time that "something as fundamental as an electrical current" has been produced artificially from photosynthesis. The research is, however, still at an early stage and years away from commercial use. Be that as it may, scientific validity has now been obtained for what our children have known all along - po(peye)wer comes from spinach!

(TOI, 13.11.04)

Steam Engines could be Eco Hope

The search for an alternative fuel source to hydrocarbons, that can power vehicles cleanly, has gone full circle and is focussing on steam once again. This possibility as a viable proposition has been kindled by a revolutionary new design of the steam engine by Glynne Bowsher, a British design engineer.

In Bowsher's engine, water is passed through a steam generator where it is heated to superheated steam by burning propane gas, which then powers a two-stage high-speed steam turbine. It sounds simple enough, but the major challenge encountered by Bowsher and his team was to generate enough power in such a small vehicular space, which they have overcome by innovative design solutions. Propane is also more environmentally friendly than diesel.

Its adoption into road vehicles is, however, far from over. "The problem of turbines is that to be efficient, they have to run at a predetermined speed. The very nature of road cars is such that their speed changes all the time, so this design would be no good for road vehicles," says Bowsher. But he is confident. So confident in fact, that he is going to attempt to break the land speed record.

(BBCN, 28.12.04)

It's Windy Across the World!

Five Mw Of Wind Power Is Next "Big" Thing

Assembly for a 120-meter (394-foot) high wind tower and turbine isn't a fast moving process. Germany's REpower has worked since April of this year on their 5M wind turbine, and recently installed the 120 ton rotor to complete the essential assembly work on the largest wind turbine ever produced to date.

(RNA, Oct.2004)



Australia's Largest Wind Farm Opened

The second stage of the largest wind farm now operating in Australia was officially opened at Woolnorth in Tasmania. The completion of Stage two of the Woolnorth wind farm brought it to the halfway stage with the total output of the project now 64 MW.

(RNA, Oct.2004)

GE Energy Tapped For 990 Mw Of Wind Power

GE Energy was recently selected by wind project developers Cartier Wind Energy and Northland Power to build eight wind farms across Canada that will total 990 MW of potential energy production for Hydro-Quebec, which commissioned the projects.

(RNA, Oct, 2004)

2005 Expected To Be Record Year For U.S. Wind Power

With the extension of the federal wind energy production tax credit in September, capacity installations in 2005 is set to exceed 2500 MW, which will be a record. The previous high for new wind power capacity installations in one year was 1,696 MW in 2001.

(RNA, Nov, 2004)

Forest crops towards cleaner fuel

The UK is to encourage the use of willow, poplar, wood from forests, sawdust, straw and a woody grass (Miscanthus) to produce 'biomass crops' - grown especially as environmentally-friendly fuels for heat and electricity. A task force has been appointed by the government to stimulate biomass supply and demand in a bid to help meet renewable energy targets and to boost farming, forestry and the rural economy. A new £3.5 million UK-wide Bio-Energy Infrastructure Scheme has been unveiled offering grants to help harvest, store, process and supply biomass for energy production.

(DN, 18.10.2004)

China Endorses 300 Mw Ocean Energy Project

Thanks to China's insatiable appetite for energy and their increasing determination to add renewable energy to the mix, the ocean waters off the coast of China are on their way to gaining a large-scale ocean energy project. The Chinese government signed an agreement with UK-based Tidal Electric for a renewable energy tidal power project near the mouth of the Yalu river. At 300 MW, the project would be the largest tidal power project in the world, according to the developers, topping the capacity of the 240 MW French tidal power plant in LaRance.

(RNA, Oct 2004)

Experimental Solar-powered Car

Syed Sajjad Ahmed, a second hand computer peripherals vendor and electric car enthusiast from Bangalore, India, has developed an experimental solar-powered photovoltaic powered car with which he drove from Bangalore to Chennai, a distance of about 360 Kms.



Ahmed put together the car entirely from scrap material that still cost him the princely sum of Rs 75000, including the photovoltaic cells. It weighs a little over 300 Kg and can reach a maximum speed of 50 kph. Six hours of charging the photovoltaic cells can run the car for 120 hours.

(TH, 9.10.04)

India Proposes Renewable Energy Standard

Renewable energy options are more than just a choice for the affluent or "green" thinking people of India. For years now, remote villages have relied on wood stoves and diesel generators to provide heat and electricity. Efforts to increase the use of energy through solar, wind and biomass sources in remote areas have put the nation at the forefront of renewable power use, but the government has only recently proposed a renewable energy standard for the nation.

(RNA, Oct 2004)

Solar Power for Urban Housing Projects

Even as the government of the state of West Bengal, India, prepares to light urban homes with green power, top realtors have approached the West Bengal Renewable Energy Authority (WBREDA) for developing a solar water heater for use in highrises. In designing solar systems for urban markets, WBREDA is taking inspiration from China that possesses 76 per cent of Asia's solar energy infrastructure and are quite successful in putting models atop multistoried buildings.

Though WBREDA's development of solar power was primarily to provide electricity to remote locations through subsidized financing, generally its cost remains the biggest hurdle to popularising solar power in an urban milieu where conventional energy is cheap. Once supply goes up with demand the price will be more affordable, and the state is likely to consider making solar power mandatory in new homes then.

(TOI, 5.11.04)

India to Work Jointly to Develop Gas Hydrates

India has teamed up with Japan, US, Canada and Russia to conduct a joint research on developing alternate sources of energy like gas hydrates. A gas hydrate is a crystalline solid and its building blocks consist of a gas molecule surrounded by a cage of water molecules, and is mostly available as a sub-marine deposit. Though many gases are capable of forming hydrates, the most common marine gas is methane hydrate, which has great potential as a future energy source. Preliminary analysis of seismic data indicate large deposits of the hydrate along the coasts of India.

According to Subir Raha, CMD of the Oil and Natural Commission (ONGC), gas from hydrate may become a major energy source if economically viable techniques could be developed to control the gasification under water and extract the methane.

(TOI, 16.11.2004)

Electricity from Municipal Waste

For the last one-and-a-half years, a six megawatt plant using solid municipal wastes is running at Vijayawada, India, generating about Rupees one million a year for its municipal corporation. The plant is supplied a total of 500 tonnes of waste each day by the Vijayawada and Guntur (30 km away) Municipal Corporations. The total project cost was Rs 540m.

The Vijayawada Municipal Corporation is involved in two other eco-friendly projects as well: production of organic manure from waste and a mini-power plant using a bi-methanation process.

(TH, 5.11.04)

'Renewing' Energy Practices

The ruling Liberal Party of Ontario, Canada, endorsed a policy mechanism widely used in Europe to encourage growth in renewable energy. Following the German model, it permits farmers, cooperatives and businesses to connect their wind turbines and solar panels to the common electricity grid and they will be paid for the electricity they contribute, thereby eliciting the active participation of citizens and businesses.

(DTE, 31.12.04)

Daylight.....the 'New'(!) Energy Saver

The one-room office of Atlantic Daylighting in Norwalk US has no windows, yet is drenched in sunlight. For many hours during the day it is perfectly lit from overhead without using a single kilowatt of electricity. The office is an instant sample of the firm's trade marked 'SunPort', a through-the-roof daylighting system, using upto 85 per cent less electricity over the course of a year.

The system collects sunlight through an outer lens and disperses it as cool, natural daylight. The colours are 100 per cent true and the lens gets rid of ultra-violet radiation. Tubular fluorescent bulbs within the system automatically supplement the daylight to maintain the desired light level. The system can be used only on flat-roofed buildings or factories with one, or possibly two, stories. On sunny summer days, the lights would be off from about 9 a.m. to 3:30 p.m. In the winter, very little electricity would be needed for lights from 10 a.m. to 3 p.m.

(ENN, 14.12.04)

Japan Railways to have Fuel-cell Trains

Japan Railways have initiated studies to get a fuel cell-powered, nonpolluting, low-noise train into service by about 2010. A bogie consisting of a wheel system run by fuel cells that generated 30 kwh has been recently test run, achieving a maximum speed of 30 kph.

The fuel cell system being tested in the project is basically the same as that used in automobiles, designed to generate electric power through a reaction between hydrogen in a cylinder and oxygen in the air. The only by-product of the reaction is water, while the electric-powered motor produces far less noise.

A major hurdle to be cleared before the planned fuel cell-powered train can be put into service is to boost the fuel cells' efficiency. To run a couple of carriages, fuel cells capable of turning out 600 kilowatt-hours of electricity are needed, according to a project expert. Fuel cells capable of producing that amount of electricity currently available are too large to be set up in the envisaged vehicle.

(ENN, 6.12.04)



Environment

Kenyan Wins Nobel Peace Prize

Kenyan environmental activist Wangari Maathai won the Nobel Peace Prize for her work as leader of the Green Belt Movement, which for almost 30 years has sought to empower women, better the environment and fight corruption in Africa.

Maathai, Kenya's deputy environment minister, is the first African woman to win the prize since it was first awarded in 1901. She has been internationally recognized for her struggle for democracy, and gained recent attention for a campaign against land grabbing and rapacious deforestation. The Green Belt Movement has planted more than 30 million trees across Africa. It was the first time the prize honoured work to preserve the environment

(CBSN, 8.10.04)

Scientists Tie High Ozone Levels to Early Death

After reviewing more than a decade of air quality reports and medical records in the US city of Houston, a team of scientists from Yale University has linked ozone to premature death. High levels of ozone - a colourless, odourless gas that forms smog - have long been tied to asthma, increased hospitalisations, heart problems and more recently, an increase in some kinds of infections. But the new study, hailed by some environmental health researchers and advocacy groups as "landmark," points to ozone as a direct cause of death.

Left unanswered by the study, however, is how ozone could be killing people. They suggested an increase in cardiovascular and lung-related deaths on high ozone days, and both heart and lung problems could be triggered by ozone. The notion that high ozone, on its own, can cause premature death has been gaining acceptance in the last few years, and the new research perhaps provides rather compelling evidence.

(Reuters, 17.11.2004)



Bhopal's Agony Continues

Union Carbide's killer methyl isocyanate gas wiped off thousands of faces from Bhopal's slate one fateful night twenty years ago. The incident appears to be still looming large over the residents, like a sword of Damocles. Recent findings have evidenced traces of groundwater contamination from tonnes of toxic material, containing harmful metals like mercury and dangerous pesticides used in cleaning up the old plant. However, both Dow Chemicals and Union Carbide, the parent companies, have disowned responsibility.

(Insight, Nov-Dec 2004)

Polluter Pays

Hindustan Lever Ltd (HLL), the Indian subsidiary of multinational giant Unilever, has been fined Rs 500m for polluting the pristine hill station of Kodaikanal, India. The Supreme Court Monitoring Committee on Hazardous Waste (SCMC) visited the town and found that mercury vapour and other effluents from HLL's thermometer manufacturing factory at Kodaikanal had found their way into Pambar Shola forest sanctuary and the Kodai lake.

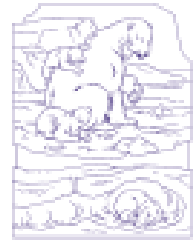
HLL have also been directed to open a health clinic to treat the victims of mercury poisoning as well as provide alternative employment to the workers rendered jobless by the closure of the factory.

(DTE, 15.11.04)

Unbearable!

If Arctic warming was not enough, polar bears are now suffering due to industrial chemicals swept in the region from nations thousands of kilometres away, says a World Wildlife Fund for Nature (WWF) report. Recent studies indicate that polar bears are mainly affected by polychlorinated biphenyls (PCBs) and pesticides as well as some newer chemicals like some flame-retardants, with similar characteristics. These chemicals linger for years in the environment and build up in the animals' fatty tissues, with the result that they suffer due to lack of antibodies in their blood that make them more susceptible to infection. The studies even found altered hormone levels that could lead to everything from reproductive to behavioural problems. WWF has called for a wider ban on these toxic chemicals.

(DTE, 15.10.04)



California Mandates Cut in GHGs from Vehicles

The California Air Resources Board (CARB) have released new rules that necessitate cutting greenhouse gases (GHGs) from exhausts of car and light trucks by 25 per cent and from larger trucks and sports utility vehicles by 18 per cent. The first phase of the plan hopes to reduce average vehicular GHGs by 23 per cent by 2012 and by 30 per cent in the second phase by 2015.

The authorities hope that these rules will force automakers to find new and cheaper ways to cut pollution. The automobile associations are understandably up in arms, and automobile manufacturers say that the increase in cost would be between US \$2000 to US \$7000, while a CARB study puts this figure at between US \$ 241 and US \$326.

(DTE, 31.10.04)

Endangered: 16000 Species of Flora and Fauna!

According to a report by the World Conservation Union (IUCN), almost 16000 species of flora and fauna, including both common and rare animal species and about 8000 plant species, are at risk of extinction, largely because of environmental damage. According to Craig Hilton-Taylor, of the IUCN, the figure greatly underestimates the true number as only a small fraction of the 1.9m species of plant and animals known to man have been assessed.

The report has disturbing details of hitherto robust species - ranging from tigers to house sparrows that were common until recently - showing sharp population declines. Among the most threatened is the snow leopard which lives in Central Asia and which is rapidly disappearing in the face of war, hunting and habitat destruction

In another study published earlier in the science journal Nature, IUCN reported that more than ninety of the world's stock of large fish, such as cod, tuna, marlin and swordfish have disappeared in the past fifty years because of intensive fishing, leading to apprehensions among experts of a complete reorganisation of ocean ecosystems, with unknown global consequences.

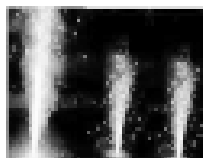
(TOI, 15.11.04)

A Less Noisy Deepavali this Year

It was a less noisy Deepavali, the festival of lights - and unfortunately, of sound (big sound!) as well - in many parts of India this year. This is the result of a twin-pronged initiative (Firstly, enacting laws limiting decibel levels of crackers and bursting timings etc. and secondly,

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awareness generation) taken by different state governments and pollution control boards for some time now.



Another aspect that has hitherto not received its due consideration, but has caught the attention of pollution experts lately, is the concentration of toxic fumes generated by crackers and other fireworks on Deepavali night. This year, there was appreciable reduction in both decibel levels and atmospheric pollution in the states where action was taken.

(TH, 9.11.04 & 17.11.04)

Poisonous Exemption

At a recent meeting of the Parties to the Montreal Protocol, the US and other industrialised countries have obtained further exemption in 2005, of over 2600 tonnes of methyl bromide used as a pesticide and soil fumigant, over the 12500 tonnes agreed earlier. The use of the chemical was originally to be phased out in 2005 itself, but the developed nations have managed to get the extensions on the ground that the chemical does not have an economically viable substitute.

Taking into account existing stockpiles of unused or recycled methyl bromide, the Parties also agreed to grant the industrialised nations over 11700 tonnes of exemptions and 3000 tonnes of provisional exemptions for 2006.

(DTE, 31.12.04)

Melting Glaciers Threaten World Water Supply

Mountain glaciers, which act as the world's water towers, are shrinking at ever faster rates, threatening the livelihoods of millions of people and the future of countless species. Around 75 percent of the world's fresh water is stored in glacial ice, much of it in mountain areas, allowing for heavy winter rain and snow-falls to be released gradually into river networks throughout summer or dry months. Due to factors such as global warming and air pollution, glaciers, like the polar ice caps, are getting smaller



In dry countries, mountain glaciers can account for as much as 95 percent of water in river networks, while even in lowland areas of temperate countries such as Germany, around 40 percent of water comes from mountain ice-fields. This is thus a daunting issue for, once the glaciers go, such countries will be totally at the mercy of whatever falls from the sky with no natural 'storage' facility, and thus alternating between periods of extreme floods and extreme droughts.

(PA, 19.11.04)

Bio-diesel is the future fuel

Bio-diesel will soon emerge as a viable alternative fuel if ongoing vehicular experiments prove successful, say experts. State-owned refiner Indian Oil Corporation (IOC) and carmaker Tata Motors jointly embarked on a programme in October to study the effects of bio-diesel blends in diesel passenger cars and light commercial vehicles under laboratory-controlled as well as field conditions. "We have carried out tests by adding five percent of bio-diesel in two cars and 10 per cent in one car, running them up to 5,000 km," said IOC's senior research manager G.K. Acharya on the sidelines of a conference in Agra on better air quality, "we have also tested on two other vehicles, including a truck, and found the response good".

(AA, 13.12.04)

Japanese Automakers 'Greenest'

Japanese automakers produce the cleanest burning vehicles and they were led in the 2003 model year by Honda, followed by Nissan and Toyota, according to a report of the Union of Concerned Scientists, US. They were followed by the true blue American automakers, Ford, Daimler Chrysler and General Motors, in that order. The report focuses on smog forming pollution and CO₂ emissions.

(BL.8.12.04)

Xuan Wei's Mutating People

Residents of China's Xuan Wei county, exposed to coal emissions indoor, carry genetic mutations that greatly increase their risk of developing lung cancer. The lung cancer mortality rate among some communities in Xuan Wei is twenty times more than the country's national average. The indoor coal emissions can be mainly attributed to cooking and heating of homes.

A study by the US based Universities of Pittsburgh and Michigan analysed sputum samples of 92 individuals, who did not show symptoms of lung cancer, for mutations of the p53 and K-ras genes - both of which contribute significantly to the incidence or otherwise of lung cancer - and found 16.3 per cent of the subjects underwent genetic mutations. Mutations to both p53 and K-ras genes are triggered by polycyclic aromatic hydrocarbons from burning coal. The study also found that mutation statistics were similar in men who smoked, and women who are traditionally non-smokers but work in homes not properly ventilated.

(DTE, 31.10.04)

E-waste: Big Environmental Threat

Imported Toxic Wastes

The export and import of toxic wastes to third world countries (India happens to be a major importer) in the name of the environmentally friendly euphemism 'recycling', is now one of the biggest threats to global environment and the implementation of clean production. The recycling process also generates lot of toxic materials that pollute the environment and place workers at risk.

According to a toxics campaigner of Greenpeace India, the export and import of hazardous wastes to third world countries, ostensibly for recycling, is an unacceptable transfer of responsibility to those least able to afford it.

(TOI, 15.19.04)

Indian Toxic Wastes

The rapid pace of technological change is bringing in its wake rapid rates of obsolescence, resulting in old appliances being dumped at an increasing rate. According to statistics given at a seminar by the Manufacturers Association of Information Technology at Bangalore, India, recently, India will generate e-waste valued at \$1.5bn (Rs 6750 Cr.), quoting Toxics Link a New Delhi, an India based NGO. It is estimated that in 2005, 130mn cellphones alone will be dumped including batteries and other accessories amounting to 65000 tonnes.

The magnitude of the problem can be further realized when the fact of developed countries dumping their e-waste into developing countries including India, is considered. Though these wastes contain valuable materials like gold, copper and glass, they also contain hazardous substances like lead, mercury, cadmium and plastic among others.

(FE, 10.12.04 & ET, 14.12.04)

Basic Needs



Fine for Using Groundwater?

Recession of groundwater tables caused by drawing excess water by residents, is a matter for concern in most Indian cities. For Kolkata, the Government of West Bengal, India, has opted to take the legal route to stem the trend. Quotas will be fixed, especially for the high-rises, with hefty fines for violation. The Kolkata Municipal Corporation, which supplies water within the city area, however, have doubts whether such restrictions on usage of groundwater will actually prevent its depletion.

The Mayor of Kolkata expressed the concerns of the municipal corporation about having to arrange for alternate source of surface water, supply in bulk of which is not an easy proposition. It is clear that the concerns of the two authorities are not synergised and ultimately the consumer stands to suffer. Environmentalist N C Banerjee has this to say, "The government should install as many reservoirs and booster stations as possible. We also need to start rainwater harvesting. Finally restoration of water bodies is also very important."

(TOI, 16.10.04)

UK to aid Sarva Shiksha Abhiyan

The UK has extended a £200-million grant to bolster India's Sarva Shiksha Abhiyan (SSA) - Universal Education Campaign - initially for the states of Andhra Pradesh, West Bengal and the territory of Delhi. The SSA has been incorporated in the Indian Constitution to ensure eight years of elementary education for every child.

According to David Miliband, UK Minister of Schools, the purpose of the initiative is to build bridges between the school education systems of the two countries so that both countries have access to each other's knowledge base which could help infuse the necessary improvement in the two systems, as well as to "understand modern India" which is an "emerging global power". "With around 1.3 million people of Indian origin in Great Britain, our schools must focus on development of global citizenship," he added.

(ET, 8.10.04)

Darjeeling to Augment Water Requirement

Water scarcity in this "queen of hill stations" in India is legion. This is especially true in winter when rainfall is negligible. People making a beeline for the tourist destination are often put off by the shortage, especially when they have to buy bucketsful at exorbitant rates. The 'racket' has come to such a pass that it has now begun to affect the tourist trade and become a threat to the local economy.

Vegetable Oils Reduce Heart Risk

Vegetable oils found in leafy vegetables, nuts and flaxseed reduce a woman's risk of heart disease. A study, presented to the American Heart Association, offers an alternative to women worried about mercury in fish-oil supplements that have also shown to lower heart risk. Researchers from the Harvard Medical School studied the lifestyles and health of 76,000 women since 1984, the outcome of which is this finding.

(ET, 14.11.04)

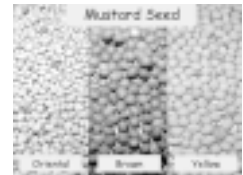


The Municipality is looking at possibilities of pumping up water from Rangeet, Balason and Rubngdung rivers with the objective of obtaining an additional 1.5 million gallons of water daily. New water springs are also being explored. Besides, micro plans are being undertaken to improve rainwater harvesting and reduce leakage.

(ET, 14.11.04)

High Yielding, Early-maturing Mustard Variety

Scientists at the Division of Genetics at the Indian Agriculture Research Institute (IARI), New Delhi have developed a high yielding and early-maturing mustard variety, christened 'Pusa Karishma'. Maturing in about 148 days, the improved variety has recorded a high yield of 3333 kg of seeds a hectare, and its average output is 2201 kg per hectare under irrigated conditions, according to the scientists.



The seed has oil content of 38-40 per cent and the quality of the oil is found to be excellent, thus expecting to get a premium price in the market. Health conscious consumers in urban centres and oil merchants, according to the scientists, will particularly appreciate it.

(TH, 28.10.04)

UN Backbencher Tag on India

UNESCO has released its 2005 Global Education Monitoring Report, and based on the figures of India's 2001 census has ranked India 106 out of the 127 countries surveyed. One key reason is that India has the largest number of illiterates - with 34 per cent of the world's aggregate. The UNESCO report notes that while 91 countries are making progress, a group of 35 countries - including 22 sub-Saharan countries and India - are "very far from achieving the goals."

India does best on the enrolment ratio - at 83 per cent, it is close to the world average - ranking 94th, but does badly in the rest. On the bright side, India gets a positive mention for its exceptional accomplishment in running successfully low-cost pre-school care and education programmes.

(TOI, 9.11.04)

Can Asia meet MDG Poverty Target?

A report by the Asian Development Bank raises doubts about achieving the first target of the Millennium Development Goals (MDG): reducing poverty by half in Asia by 2015. Internationally there is no agreement on defining the poverty line. Going by the US \$1-a-day norm, poverty level has fallen to 21.5 per cent in 2002 from 34 per cent in 1990. But US \$1-a-day does not meet even bare minimal needs. So some use a US \$2-a-day limit: it puts about sixty per cent of Asians below the poverty line.

Two-thirds of Asia's extremely poor live in South Asia. Absolute BPL (below the poverty line) numbers are increasing in India and Bangladesh, despite the former's impressive progress in reducing poverty by half. However, poverty has been reduced by half in Pakistan, going by their standards (Rs 20.24-a-day as against the \$1-a-day norm).

If the US \$1-a-day definition of the poverty line is considered, only the fast developing economies of Asia like China and the countries in South-east Asia such as Thailand and Indonesia, can reduce the proportion of poor to half by 2015 as mandated under MDG.

(DTE, 31.10.04)

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Drinking Water and Toilets for Schools

The Rural Development Minister of the Indian Union, Raghuvansh Prasad Singh, has said the Government will make all efforts to ensure drinking water and toilet facilities for every rural school by March 2005. The Ministry will shortly launch a nationwide programme on water quality monitoring and surveillance in collaboration with the Union Health and Family Welfare Ministry.



(TH, 12.11.04)

New Gene to Guard Indian Bt Cotton from Pests

Genetically modified (GM) Bt cotton used by Indian farmers carries the 'cry1Ac' gene that makes the strain resistant to pests like bollworm. However it has been seen that continuous exposure of pests to a single kind of toxin can lead to rapid development of resistance in the insects. One way to prevent this is by 'pyramiding', in the cotton plant, two independent toxic genes that have different modes of action, so that the crop is protected by the second gene when the pests develop resistance to the first.

Researchers at the Tamil Nadu Agricultural University at Coimbatore, India, have developed two separate genes, 'cry2Aa' and 'cry2Ab', different in their pesticidal action from 'cry1Ac'. The 'cry2Ab' gene has already been commercially introduced in the US. Though this gene is effective against 'American' bollworms it is comparatively benign towards the 'Old World' variety rampant in India, and research has progressed successfully to introduce the 'cry2Aa' in the Bt cotton sown in India to create a second line of defence against the Indian bollworm.

(DTE, 31.10.04)

Multivitamins to Prevent Premature Babies

Women who take multivitamins *before* becoming pregnant are less likely to give birth to premature babies, new study findings suggest.

According to the research, conducted at the University of North Carolina, US, women who took multivitamins before conceiving were half as likely to deliver their babies before 37 weeks of pregnancy. However, continuing the multivitamins through the first months of pregnancy appeared to have no influence on the risk of premature births, according to the study reported in the American Journal of Epidemiology.

(PA, 8.11.04)

Singapore's First Cord Blood Bank

Cord blood (obtained from the umbilical cord of a newborn) is a rich source of haematopoietic stem cells - immature cells that can be developed into red and white blood cells and platelets. These cells can regenerate while producing specialised cells to replace diseased or defective cells in the blood or the immune system. Blood stem cells may also be gained from bone marrow but are highly dependant on genetic factors, while stem cells from cord blood do not require such strict genetic matching, and so are in great demand.

Singapore is set to have its first governmental cord blood bank, the Singapore Cord Blood Bank.

Once it goes on stream, brand new mothers will be encouraged to donate their

newborns' umbilical cords and with a registry of predominantly Asian donors, patients will have a better chance of finding a suitable match.

(TH, 3.11.04)

Basic Needs

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Role of Teachers under Scanner

The 2005 Education For All Global Monitoring Report released recently by UNESCO, is critical of the adverse gender parity among teachers and the student/teacher ratio in India. While female teachers constitute a huge 90 per cent at the pre-primary level, this ratio drastically falls to 36 per cent at the primary level. This is in contrast to about 80 per cent in Western Europe and 54 per cent in China. At the secondary and tertiary levels, female teachers constitute just 34 and 37 per cent respectively. According to the report, the gender disparity in students in India is partly to be blamed for this phenomenon.

India has a student/teacher ratio of 40:1 at the primary level, much above the 'ideal' ratio. The global average is 22:1 and even in the developing countries it is 28:1. The report says that research, though not conclusive, shows that reducing the class size has a positive impact, especially for children from disadvantaged social groups.

(TOI, 9.11.04)

3.2 Per Cent Job Growth Forecast

The first ever Ma Foi Employment Survey predicts 3.19 per cent growth in organised sector employment in India during the quarter ending December 31, 2004. As against this, the labour force or persons willing to work is growing at the rate of 1.31 per cent per annum, while the population is growing at 1.95 per cent. The survey estimates that a total of over 0.6 million persons are expected to join to organised workforce in the quarter.

(ET, 30.11.04)

Meat Scares Eased

Britain Eases Mad Cow Control

Britain has moved to put the crisis over mad cow behind it, saying it was safe to scrap a key measure protecting humans from the brain-wasting cattle disease. Britain, heavily criticised in its management of one of the world's worst farming catastrophes, said the number of animals testing positive for BSE had fallen so low that once-stringent measures could now be loosened. The UK farm and health ministries said Britain could start removing the Over Thirty Months (OTM) rule, whereby cattle over that age are banned from entering the food chain, and replace it with a new testing system after mid-2005.

(Reuters, 2.12.04)



Dutch Open Livestock Farms after Dioxin Scare

The Dutch authorities have re-opened 96 livestock farms out of nearly 200 it had sealed off as a precaution after discovering cancer-causing dioxin in animal feed. Dioxins is a toxic chemical that originate in pesticides or industrial processes, seep into rivers and lakes and build up in the flesh of fish and animals. Dutch authorities have said that German-made clay used for sorting potatoes was the reason for the dioxin contamination of animal feed made using potato peelings. Dutch health officials have ruled out any risk to public health, saying contaminated products had not reached consumers.

(Reuters, 15.11.04)

Project Overview

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Mita Dutta, Coordinator of the Calcutta Resource Centre, Consumer Unity & Trust Society, presented the Country Paper for India in the launch meeting organised by the South Asian Watch on Trade, Economics and Environment (SAWTEE), between 8-10 October, 2004, at Kathmandu, Nepal. It commenced a further initiative by SAWTEE and its partners in five South Asian countries to protect the rights of the mountain farmers on the genetic resources and their role in the decision making process. The project is to

CUTS' Involvement with Farmers' Rights

study the issues of 'Access, Benefit Sharing' and 'Prior Informed Consent' regime of the country to protect the livelihoods of these communities. The outcomes are expected to reveal important road-signs towards the protection of the biodiversity of the regions and security and sustainable development of the genetic resources of the mountain farmers.



Ms Dutta also presented a paper on the above issues at the 7th Sustainable Development Conference held at Islamabad, Pakistan, between 8-10 December, 2004.

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