Since 1960, some 450 million hectares of tropical forest have disappeared. Asia has lost nearly a third of its tropical forest cover while Africa and Latin America each lost 18 percent. That means that nearly two-thirds of the original forest cover of the world is gone and the remaining third is disappearing at the extraordinary rate of nearly 42 million acres annually. The worst hit is the Asia/Pacific region where 88% of the original forest cover is gone. Rates of deforestation in Latin America and the Caribbean where more than 40% of the original forest cover is lost, have increased dramatically during the past three decades, and Central America is now losing its forests faster than anywhere else in the world. In Africa, 45% of original forest cover has been lost and 95% is still unprotected; Africa loses more than 4 million hectares (nearly 10 million acres) of forests per year due to unregulated deforestation that includes commercial logging, agricultural expansion, and other changes in land use.

In August 1998, a joint report from three of the world’s international conservation NGOs—World Conservation Monitoring Centre (WMC), the World Conservation Union (IUCN), and the World Wide Fund for Nature (WWF) announced that 10% of the world’s known tree species face extinction. According to that report 8,750 of the 80,000 to 100,000 tree species known to science were found threatened with extinction. Threats to tree species include felling for timber and wood fuel, agriculture, expansion of human settle-

ments, uncontrolled forest fires and unsustainable forest management. The report called for greater protection of at least 10% of the world’s forests in protected areas and independent certification of 25 million hectares of forests by 2001.

Twenty-two countries have already made a pledge to protect a minimum of 10% of their forests by the year 2000. These nations are: Argentina, Armenia, Australia, Austria, Bolivia, Brazil, Canada, Chile, the People’s Republic of China, Columbia, Greece, Lithuania, Malawi, Mozambique, New Zealand, Nicaragua, Romania, the Russian Republic, Slovak Republic, Tunisia, Uzbekistan, Viet Nam. Brazil’s new pledge to add 25 million hectares (almost 62 million acres) of Amazon rain forest to its protected lands by the year 2000 will nearly triple the amount of land under protection in the Brazilian Amazon.

Ten million hectares of forests worldwide are now certified. Leading retailers and manufactures around the world have formed buyers groups (presently in 10 different countries) and are sending the message to thousands of suppliers that they care about the forests from which their products have been sourced.

INTERNATIONAL FOREST PROTECTION EFFORTS

Both the socio-cultural benefits of forests and the social implications of the distribution of forest benefits continue to be issues of international attention and national action. Attention at the highest policy-making levels has been drawn to
the interactions between development and environmental and social issues through four international summits held within the last three years: the World Summit for Social Development (Copenhagen, March 1995); the Fourth World Conference on Women (Beijing, September 1995); Habitat 11—the Second United Nations Conference on Human Settlements (Istanbul, June 1996); and the World Food Summit (Rome, November 1996). The importance accorded internationally to forestry is also reflected in the establishment of the Intergovernmental Panel on Forests (IPF) in April 1995 by the UN Commission on Sustainable Development to encourage international consensus on key issues related to forests.

Conflicting demands and differences in opinion about the relative importance of the goods and various services provided by forests will increasingly have to be reconciled. Demands for achieving more equitable distribution of the benefits from forests, for safeguarding the rights of forest dwellers and indigenous peoples, and for ensuring widespread participation in decision making related to forests will add to the complexity and challenge of forest management and policy making in the coming years.

Economics is the basis for global habitat and natural resource destruction. Many of the world’s poor live near forests and are dependent on forest lands and resources for their livelihoods. While people are trying to provide for their families, they have cleared forests to grow crops, raise cattle or harvest timber. In order to assuage this tendency, there is a constant need to provide local people with alternative sources of income in substitution for deforestation and other ecosystem losses. One way is to develop ecologically sustainable enterprises-businesses which are based on, but do not destroy natural resources. One answer to the accelerating rate of deforestation may be tourism.

**FLAMES IN THE AMAZON FOREST: CARBON EMISSIONS GO UP**

In May of 1998, researchers of the Instituto de Pesquisa Ambiental da Amazonia (IPAM), a non-governmental research institute based in Brazil, and the Woods Hole Research Center (WHRC), based in Massachusetts, predicted that approximately 400,000 km squared of forest in the Brazilian Amazon would become vulnerable to fire during the 1998 dry season. A recent update of this fire prediction model, using additional rainfall data collected across the region, shows that the unusually low amounts of rainfall in 1998 have increased the area of fire-vulnerable fire to more than one million square kilometers, or one-third of the forests of Amazonia. These researchers calculate that more than one half of this drought-stressed forest (700,000 km2) had depleted all available soil water to five meters depth by the end of September. In the first field study conducted to test this prediction, these researchers measured the amount of fire-vulnerable forest that actually caught fire in a small test region in southeastern Amazonia. They discovered that three to five thousand square kilometers of standing forest caught fire in 1998 in this region. This area of burned forest is one-fifth the size of the entire forest area that is “deforested” through clear-cutting and burning each as measured by the Brazilian Government’s deforestation monitoring program. And yet, the burned forests were documented within a very small (45,000 km squared) region that is less than one percent of the legal Amazon (5,000,000 km squared). The burning of standing forests is not currently included in the government’s monitoring program. The study was conducted in September, 1998, in a 300 x 150 km area in the southeastern corner of Brazil’s “arc of deforestation”, near the edge of the Amazon forest. This estimate is based upon 1,110 observations made from a low-flying airplane along an 800 km flight path that criss-crossed the region combined with field visits to burned and unburned forests. Forests in which ash was observed on the ground, or in which leaves were scorched brown from flames, were recorded as burned. Burned forests were recorded at 9% of the observation points. Although this study was conducted in a region that is highly prone to forest fires because of severe drought, these results are of major significance for estimates of human damages to Amazon forests, and of carbon emissions from Amazon forests associated with land use practices. According to recent field studies, the burning of standing forest can release 10 to 80% of forest biomass to the atmosphere as heat-trapping carbon dioxide. Therefore, forest fires such as this release large amounts of carbon dioxide to the atmosphere that is not included in current estimates of carbon emissions from Amazonia.

**SOURCE:** Based on research from Woods Hole Research Center (Massachusetts, USA) and IPAM, Instituto de Pesquisa Ambiental da Amazonia Contact Information: Adriana Moreira, Woods Hole Research Center, +55 61 3409992 (in Brazil), Email mailto:adriana@whrc.org adriana@whrc.org. Information Bulletin for the Buenos Aires Conference on Climate Change, Nov. 1998. (This conference is a follow up to the Kyoto Conference on Climate Change, Dec. 1997)
resources which attract outside visitors.

A decade ago when travel professionals first came up with the buzz-word “ecotourism” they were on a marketing spree, and not interested in saving endangered ecosystems and forests of the world. The basic concept was extremely simple: people would be willing to pay top dollars to visit inaccessible, unspoiled parts of the world where they could enjoy natural history. The fact that these expeditions would also carry socio-economic and conservation benefits, as well was a mere by-product.

Soon innovative adventure travel companies began offering everything from muddy boots to five star tented camps. They needed new local guides, people to prepare food, carry packs, and offer overnight lodging. At the most popular destinations they would need hotels. It did not take long before national governments and local communities realized how profitable ecotourism could be. Today it represents perhaps forty-sixty percent of the tourism industry.

A good definition of ecotourism is that used by the Ecotourism Society, a not for profit organization in the United States which defines it as “purposeful travel to natural areas to understand the culture and natural history of the environment, taking care not to alter the integrity of the ecosystem, while producing economic opportunities that make the conservation of natural resources beneficial to local-people.”

**ECOTOURISM IN AFRICA**

Tourism is largely responsible for saving the gorillas of Rwanda from extinction. But in saving the gorilla, the conservation also saved its natural habitat, the afro-montane forest. When American primatist Dian Fossey set up the Parc des Volcans in Rwanda, the gorilla was threatened by both poachers and local farmers, whose land clearing practices to make room for agricultural fields were destroying the gorillas’ natural habitat. The Park soon became an international attraction and was the third largest source of foreign exchange for Rwanda. Until 1994, revenues from the $170.00 a day visitors fee allowed the government to create anti-poaching patrols and employ local farmers as park guides and guards.

Gorilla tourism has become a gold mine for Uganda as well. Today, the world’s last remaining populations of mountain gorillas are concentrated in three neighboring countries: Rwanda, the Democratic Republic of the Congo (formerly Zaire) and Uganda. One group of about 320 animals ranges over the Virunga Mountains, which straddle the borders of all three countries.

The Bwindi Impenetrable National Park in Uganda has half the world’s population of mountain gorillas and one of the richest, most diverse communities of plants and animals in East Africa. Established in 1991, with a gorilla-viewing program launched two years later, the park has already become legendary among primate watchers. Since war and political unrest have closed programs in Rwanda and in the Democratic Republic of Congo, Bwindi and a smaller Ugandan park named Mgahinga, 16 miles South, are the only areas where one can observe wild mountain gorillas that have been carefully habituated to the presence of humans.

In Bwindi, visitors paying $280.00 a day can hike through an area where ancient mahoganies tower over the park’s many trails, while giant ferns, umbrella trees, and moss-covered lianas fill the understory and where some of the 336 species of birds are found in these deep valleys and rugged hills on the edge of the Albertine Rift.

To protect this ecosystem and resource base, visitors only visit one habituated gorilla troop, known as the Mubare group. Regulations are strict. Only six people are allowed to view the group on any given day; visitors must be age 15 or older to protect the animals from childhood diseases, people with colds or other obvious illnesses are barred and viewing time is limited to one hour each day, no closer than 15 feet. Flash photography is prohibited.

An ecotourism development plan has been put in place for the recently established Park. The income generated so far through tourism has helped to build traffic networks, train guides and field rangers, and purchase equipment for field staff.

Uganda has also concentrated on the development of sustainable revenue sharing for local communities through tourism and initiated and develop a pilot program for benefit-sharing in Bwindi and Mgahinga Gorilla National Parks, essential for conserving the parks in the long term.

About 3,600 tourists visit each year generating an estimated (US) $41 million—part of which helps build schools and health clinics in nearby villages. To meet growing demand for
gorilla-viewing and at the same time protecting their habitat, officials are trying to habituate 3 more of the gorillas 28 gorilla groups.

**ECOTOURISM IN SOUTH AMERICA**

Bolivia is also looking into the benefits of ecotourists to save its forests. The Alto Madidi Region of northwestern Bolivia is located in a bell of high biodiversity which runs through western South America, where the Andes meet the Amazon basin. The government of Bolivia recognized the importance of the Madidi area by establishing the Madidi National Park in 1995 and is now looking to ecotourism as a means of generating income for the people living in and around this important ecosystem.

Conservation International (CI), a Washington, DC based conservation NGO is in a unique position of demonstrating ecotourism’s potential through a model ecolodge at Chalalan. A small group of entrepreneurs from the Quechua-Tacana community of San Jose de Uchupiamonas constructed a few buildings in the local thatched-hut style at Lake Chalalan, a site located 3 hours by boat down river from the village. With the help of a grant from the InterAmerican Development Bank, this site now stands as a model of community-based ecotourism development. CI has worked with experts to ensure that the lodge serves as a prototype for ecotourism sustainable technologies and architecture, and that it meets international standards of service.

This project provides an excellent example of a community owned and managed ecotourism venture. Within the first year of its grand opening in 1998, Chalalan has already received approximately 500 guests. CI is now working to ensure the effective training of community members in tourism planning and management. This will enable them to successfully assume responsibility for all aspects of the operation by the year 2000. The community leaders are anxious to develop a new marketing strategy for Chalalan, which can effectively attract more tourists and tour operators to the area.

**STRATEGIES TO REDUCE EMISSIONS:**
Climate change offers an unusual challenge to forest planning and policy development. It is very important that counties begin the task of understanding the full social and economic consequences of continued deforestation, and the need to promptly examine options to slow forest loss. Quantitative and qualitative analysis of the costs and benefits of current forest policies, and their consequences for greenhouse gas emissions, need to be undertaken. Policy options to control greenhouse gas emissions through forestry practices fall into three major categories:

1) Options to reduce forest sector sources of greenhouse gases:
   - reduce forest clearing for shifting agriculture by substituting sustainable, intensified, sedentary techniques, including agroforestry;
   - reduce frequency and amount of forest and savanna consumed in biomass burning to create and maintain pasture/grasslands;
   - reduce forest loss due to public development projects, through environmental planning and management;
   - improve efficiency of cookstove and industrial biomass use;
   - reduce damage to standing trees and soils during timber harvest; and
   - reduce soil carbon loss, soil conservation farming practiced and other management techniques.

2) Maintain existing sinks of carbon in forest systems:
   - conserve standing forest and stocks of carbon through establishment of protected areas and sustainable management;
   - introduce sustainable harvesting methods to reduce tree damage; and
   - establish sustainable extractive reserves and natural forests.

3) Expand carbon sinks through sustainable forest management:
   - improve productivity of existing forest lands;
   - establish plantation on available pasture/savanna and cropland, marginal land, degraded land;
   - expedite natural regeneration of deforested land; and
   - increase soil carbon storage through soils management.

**SOURCE:** Climate Change, Intergovernmental Panel on Climate Change, World Meteorological Org/UNEP Island Press, Wash. DC
CONCLUSION

Clearly, global forestry faces increasingly difficult challenges as we near the next millennium. Population growth, changes in population distribution, economic pressures, and efforts to alleviate poverty and ensure food security will lead to more intense scrutiny of forests’ actual and potential contribution to development, and of the relative benefits of retaining land in forests versus converting it to other land uses. The most obvious challenge within the sector is that of how to meet the growing demand for forest products while at the same time safeguarding the ability of forests to provide a range of environmental services including, among others, the conservation of biological diversity, mitigation of global climate change, protection against desertification and protection of soil and water resources.

The rapid rate of forest degradation over the past 50 years signaled the warning that is now leading governments to formulate and implement new policies on forest use. While forests continue to be perceived as an economic resource, added to this understanding are the facts of deforestation. Most importantly, it is clear that forests are linked to the very basic ecological balance that fostered the growth of human civilization. Setting a balance between conservation and economic growth requires fair-minded vigilance and mutual cooperation. Sustaining the forests is imperative.

ECOTOURISM IN PAPUA NEW GUINEA

Papua New Guinea (PNG) is the largest country in Melanesia, and is one of the most biologically and culturally diverse nations in the world. It contains the Old World’s greatest expanses of forests, mangroves, and reefs that still thrive in a largely pristine condition. PNG’s wealth in biological diversity is matched by an unrivaled cultural diversity, with over 700 distinct languages.

Over the past five years, the highlands have developed into one of the most popular cultural ecotourism destinations in the world. However, if ecotourism in PNG is to prosper, the Conservation International (CI), believes that it is the responsibility of all tourism operators and other stakeholders involved in tourism to ensure that their products are environmentally sensitive and contribute to the conservation of the natural and cultural resources.

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¹ Papua New Guinea, Australia and New Zealand.


SOURCE: Vital Signs, World Watch Institute, 1998
HEALTH AND ENVIRONMENT:
Persistent Organic Pollutants

A GLOBAL HAZARD, POPs?

POPs are now understood to be one of the most dangerous threats to human health and the environment today. They are chemicals or by-products that resist degradation in the environment. They accumulate in the body fat of animals. Concentrations increase for each upward step in the food chain and can reach very high levels in, for example, seals and polar bears. Fatty fishes, such as salmon, herring and eel, have higher concentrations than do fish such as cod or haddock.

Some human populations, such as the Inuit of the Arctic region who eat salmon and seal, receive more than the Tolerable Daily Intake established by the World Health Organization (WHO). One single meal may contain as much as 100 times the acceptable daily intake. Breast-fed infants may also easily exceed the acceptable intake.

Growth in the use of POPs in industry and as pesticides increased dramatically during the 1960s and 1970s. Although, many of these chemicals are important to modern society, these compounds also pose serious threats to human health and the environment. A growing body of scientific evidence indicates that exposure to very low doses of certain POPs - which are among the most toxic substances ever created - can lead to cancer, damage to the central and peripheral nervous systems (including intellectual and learning impairment), diseases of the immune system, reproductive disorders, and interference with normal infant and child development.

THE PROBLEM OF GLOBAL TRANSPORT

In principle, a POP chemical released anywhere on earth may in time reach any other place of the globe. However, there is a particularly large-scale redistribution of persistent organic pollutants from warmer to colder areas. POPs can spread from tropical countries by evaporating into the atmosphere and then condensing over colder areas, similar to the way water vapor in air condenses as dew on a summer evening.

Because the circumpolar countries have large areas with low mean annual temperature, limited exposure to the sun, and a small biosphere, the humans and the higher animals in these regions tend to absorb unusually high concentration POPs in their bodies, particularly in body fats. As long as they continue to be used, POPs will find their way into the environment and stay there for a long time. Even if all production were to stop immediately, the problems with POPs would persist for years or even decades. Thus no single country can solve their national POPs problems alone. Because POPs are migrants without passports, global agreements and global measures are essential.

Even though industrial nations have banned or severely restricted the most hazardous POPs, some of them are still manufactured and used in developing countries and countries with economies in transition. In particular, thousands of tons of DDT per annum are manufactured in some developing countries, and PCBs are still produced in some countries including the Russian Federation.

In response, the international community has launched action on a number of fronts. First, developing countries are taking steps to adopt and strengthen national control regimes such as those existing in most developed countries. They are starting to gather information, make inventories and explore options for replacing remaining POPs uses with alternatives.

Second, a series of global actions for strengthening and coordinating national efforts to reduce or eliminate releases of POPs are now underway. The Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, adopted in November 1995 in Washington DC, includes specific provisions to address POPs. There are also a number of regional agreements in place directed at the reduction and/or elimination of POPs. A legally binding Protocol to the Convention on Long-Range Transboundary Air Pollution (LRTAP), completed under the auspices of the United Nations Economic Commission for Europe (UNECE) and covering 16 POPs, was adopted on 24 June 1998 in Aarhus, Denmark. Days later, on 29 June 1998 in Montreal, negotiations began on a global agreement on 12 POPs: The 12 POPs already on the list are aldrin, chlordane, DDT, dieldrin, dioxins, endrin, furans, heptachlor, hexachlorobenzene, mirex, PCBs, and toxaphene. These negotiations are being conducted under the auspices of the United Nations Environment Programme (UNEP) and are expected to be completed in the year 2000.

At the time of this printing leading experts on hazardous chemicals had just concluded their meeting in Bangkok from 26 to 30 October to start identifying the scientific criteria that will be used for adding chemicals to an international watch list of POPs. The list will be the basis for legal controls to reduce and eventually eliminate unacceptably toxic chemicals from the global environment. The outcome of this meeting will be reported to the second session of the Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants (INC-2) in January 1999.

SOURCES:
1. Why Do We Need A Global POPs Treaty? By Bo Wahlstrom, Senior Scientific Advisor, UNEP Chemicals, Geneva, Switzerland.
Vulnerability Reduction and Risk Management*

*Abstract Presented by Samir Ben Yahmed M.D. Director, WHO Centre for Vulnerability Reduction Tunis, Tunisia to World Information Transfer’s Seventh International Conference on Health and Environment: Global Partners for Global Solutions, “Trauma of Environmental Disasters: Consequences to Human Health” United Nations, April 17-18, 1998.

In 1995 there were 28 complex emergencies caused by armed conflicts and 302 major emergencies of natural and technological origin. A recent study in Latin America showed that for every recognized disaster, there are 20 harmful emergencies. Yet, risks and emergencies are not listed as public health issues. For every (US) $100 spent by the international community on emergencies, (US) $96 are spent on humanitarian assistance leaving only (US) $4 for reducing vulnerability and prevention of emergencies.

After an emergency, humanitarian assistance increases dramatically. However, in direct proportion to this, development assistance decreases. Increased dependency on humanitarian assistance leaves a higher level of vulnerability within that community and increases the social crisis that the local group faces.

Local communities are at the center of risk management activities because they are at the front line of any event. To make their actions fully efficient there is a need to prepare and empower local authorities in order to reduce vulnerability and increase preparedness. Communities must face the most difficult and severe stages of the aftermath of any hazardous event on their own as assistance does not arrive for several days. By the time outside aid can reach a stricken area, an average of three days, the victim survival rate can drop as low as 10%.

Although the event cannot be stopped, adequate warning of 90 minutes or more for the community is enough to dramatically reduce loss of life. With a population of 10,000 at risk this means that numbers of deaths can be reduced from 130 to 40 people.

The affected community is also without assistance sometime after the initial event when secondary hazards become apparent. Hurricane David struck the Dominican Republic, August 1979, but the outbreak of dysentery did not peak until November, by which time the outside relief agencies had long since left.

This secondary event generally occurs after the relief operations have ceased. Therefore, communities are on their own during the first phase of major emergencies and crises, and are again on their own when the long-term effects become apparent. This means that they must rely on their own internal capacities to manage their risk and vulnerability. Hence, external assistance should focus on reducing the vulnerability of communities at risk, rather than providing expensive relief support.

Investing in vulnerability reduction projects is cost effective and protects and reinforces the development achievements of communities at risk. Vulnerability reduction and risk management are cross-disciplinary actions that can only work if integrated into all sustainable development projects at local, national and international levels.

The World Health Organization established a task force on vulnerability reduction, which includes several divisions dealing with epidemics, emergencies, health systems, environment, countries in greatest need, and families and reproductive health. A new Mediterranean Centre for Vulnerability Reduction has been established in the center of the Mediterranean basin in Tunis, Tunisia.

In conclusion vulnerability reduction is an integral and important component of sustainable human development towards coping with major sources of risk. It works through community based processes which focus on basic human development needs.

Industrial ecology is the study of a closed loop in which resources and energy flow into production process, and excess materials are put back into the loop so that little or no waste is generated. Products used by consumers flow back into production loops through recycling to recover resources. Ideally, the loops are closed within a factory, among industries in a region, and within national and global economies.

SOURCE: Technology For a Sustainable Future, National Science and Technology Council, Washington DC, July 1994
The climate change negotiations that took place in Buenos Aires, in November 1992, felt like a trade show as attendees jostled to get a piece of a lucrative emerging market: trading in pollution credits. Leading the pack was the World Bank, which has become the largest public financier of carbon-emitting oil, gas and coal projects in developing nations. Not only are the bank’s projects contributing to climate change, but the bank is also hoping to double-dip — by funding fossil fuel projects in poor countries at the front end, then reaping financial benefits from the resulting pollution.

The consequence of this daisy chain is to lock developing countries into a fossil fuel energy path, repeating the mistakes of the First World rather than leapfrogging to newer and cleaner energy technologies. And the ultimate consequence is rapid, perhaps irreversible, global climate change.

More than three-fourths of the Bank’s energy loan portfolio is devoted to fossil fuels. Since the Rio de Janeiro Earth Summit in 1992, the World Bank has spent $13.6 billion on coal mines, oil and gas fields and fossil-fueled power plants in developing countries and the former Soviet block; an additional $3.9 billion in loans and credits is pending. And each taxpayer-backed World Bank dollar paves the way for five or six additional dollars in private investment for such projects.

Together, these projects will have a significant impact on the global climate. Fossil-fuel burning from post-1992 World Bank projects eventually will contribute an immense burden of carbon dioxide to the Earth’s atmosphere — equivalent to 1.3 times the total emitted by all the world’s countries in 1995. It is these emissions from which the bank now hopes to profit. Under a proposal that has been kept tightly under wraps, the bank plans to enter the market in pollution credits — estimated to reach $150 billion in trading by 2020 — and skim 5 percent from each trade it brokers.

Two types of emissions trading exist under a system approved at the Kyoto climate conference, December 1997: (1) Trades between industrialized nations: these nations pledged at Kyoto to reduce their emissions to below 1990 levels by 2008. Some countries have reached this goal already, so they have the “right” to pollute more. They can sell that right to other nations. (2) Trades involving a specific project in which two nations cooperate. Under these so-called “joint implementation” deals, one nation gets outside investment and allegedly cleaner technology than it could afford alone. In return, the other doesn’t have to reduce emissions as much within its borders.

First, the rationale for emissions trading is that fossil fuels are the only economically viable way for developing countries to get the energy they need to grow. Yet already, the health and other costs from burning coal in China are estimated at 5 percent of China’s gross domestic product. And hurricanes such as Mitch, which are expected to increase in intensity with climate change, cause incalculable damage in countries such as Honduras or Nicaragua. Second, emissions trading assumes energy services will “trickle down” to the poor, who will then be able to use that energy for cooking, heating or lighting.

In fact, the opposite is happening, because some World Bank supported projects encourage the export of fuel to wealthy nations, such as the pipelines that extract oil and gas from Nigeria and Chad. Others produce power for the urban middle-class or for heavy industry, including energy-intensive industries that migrate to these countries as soon as energy is available and cheap. And the poor, whose energy needs go unmet, continue cutting down trees for fuel which adds to the problem of global warming.

Early evidence suggests emissions trading may actually increase pollution, by giving parties an incentive to artificially inflate their baseline figures. In the US, environmental justice groups are challenging two pioneering efforts in Los Angeles in court. In both cases, pollution increased as companies raised their baselines so that they could look good later by “reducing” emissions. The Los Angeles trading had another side effect: it allowed companies to concentrate pollution in poor neighborhoods while getting credit for environmental efforts in other arenas.

This “hot spot” phenomenon already is plaguing developing countries like India, where energy-intensive industries such as aluminum smelters are migrating to avoid the inevitable ceiling on greenhouse gas emissions in industrialized nations.

The biggest beneficiaries of emissions trading will be large global corporations. These are the same corporations that squawked loudly over the Kyoto protocol, claiming it was unfair because it didn’t impose targets on developing countries. Yet they are doing brisk business exploiting fossil fuels in those countries, thus increasing emissions, with the aid of World Bank contracts.

Many of these corporations are members of the Global Climate Coalition, a powerful U.S. lobbying group that aims to prevent any action by the United States in reducing its own massive greenhouse gas emissions. Although polls show the American public wants strong action on climate change, the coalition does not. Instead, it pushes “free market” policies such as pollution credits which would allow the companies to make all of their emissions reductions in poorer countries, at one-third the cost of creating cleaner energy here at home.

The bank, which should be jump-starting the global market for clean and renewable energy, is instead using our tax money to create a self-fulfilling prophecy of rising greenhouse gas emissions, dirty profits and rapid climate change.

Amartya Sen, the respected welfare economist and expert on poverty, won the 1998 Nobel Prize in economics prize. Sen's work ranging from the theory of social choice to studies of famine concentrates on the poorest members of society. He has been described as a welfare economist who favors social arrangements that diminish disparities of freedom of choice. Many people are so ground down by disease, or traditions of prejudice that they cannot see their own future in relation to real choices. In his view income is significant because of the opportunities it creates. However, the actual opportunities also depend on other factors, including health. Alternative welfare indicators that include these other factors, such as the UN's Human Development Index reflect this point of view.

**SOURCE:** Dismal Sciences, Ryan Cardwell October, 1998

Tehachapi Pass in the United States is the site of the largest collection of wind turbines in the world. The 15 wind farms there generate enough power for 250,000 homes.

**SOURCE:** Energy Central News, 9/98

Saudi Arabia has approved a list of Internet service providers to open up the World Wide Web to the general public in the kingdom for the first time, the official Saudi Press Agency reported in early November.

**SOURCE:** Laura Kujubu, InfoWorld Electric, (Nov 3, 1998),

The United Nations Development Programme (UNDP) organized the first United Nations paperless meeting, a cyberconference in Seoul, Korea, from 30 October to 1 November. The Regional Millennium Meeting cyberconference brought together policymakers, development experts and environmental leaders from around the world to focus on "Increasing Equity and Sustainability in Asia and the Pacific.” According to Nay Htun, Assistant Administrator and Regional Director, UNDP Asia and the Pacific, "All participants will be exposed to, and have the opportunity to interact with, on-line technology, with no conference documents or other background papers present.” There will be no formal statements except for opening and closing remarks by prominent figures presented during the meeting. There will be no copying or circulating of speeches or statements. Participants will have access to wireless laptop computers in the conference rooms. The report in CD-Rom will be published in English after the meeting. The Regional Millennium Meeting consists of four roundtable discussions in the areas of globalization, governance, information and environment. Organizers have invited a student leader, Reetu Ranjita Rao from Fiji, to represent the cyber-space generation.

**SOURCE:** UNDP Press Release, New York, October 1998

The eradication of smallpox has allowed the world to save up to $1 billion every year in vaccination expenses. Poliomyelitis is expected to be totally eradicated within the next three years. Immunizing a child against the six deadliest diseases costs less than $15.

**SOURCE:** World Health Organization, Website: http://www.who.org

The World Health Organization (WHO) announced that a major step forward has been made in eliminating a major shared-country reservoir of wild poliovirus, which is in the area bordering Turkey, Iraq, Islamic Republic of Iran and Syria. It is also the last wild poliovirus reservoir in WHO’s European (EURO) Region. Through a unique inter-regional collaboration between the EURO and the Eastern Mediterranean (EMRO) Regions of WHO, 2.3 million children under five years of age in adjoining areas of these four countries are targeted to receive additional polio vaccine. An intensive campaign is being carried out door-to-door in two rounds between 4 and 12 October and 7 and 15 November, covering eleven provinces in Turkey, four provinces in Islamic Republic of Iran, nine governorates in Iraq and the border governorates of Syria.

**SOURCE:** Press Release WHO/69, 9 October 1998

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**SOURCE:** Press Release WHO/69, 9 October 1998

![One City's Approach to Industrial Ecology](image_url)

**SOURCE:** Technology For a Sustainable Future, National Science and Technology Council, Washington DC, July 1994
Following the Chernobyl accident a number of safety related conventions were adopted by the IAEA (International Atomic Energy Agency) for a response system in an emergency situation. The first, Convention on Early Notification of a Nuclear Accident was adopted on October 27, 1986, followed by the Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency on February 26, 1987.

Since there is the ever-present danger of repeated explosion which again might far exceed the borders of Ukraine, why is there a continuing delay on the part of IAEA and the international community in providing funds for increasing the safety of the Chernobyl station? The Ukrainian government reached an agreement in 1991 with the G7 nations, regarding the closing of the Chernobyl station by year 2000, yet the situation has not been resolved and two of the reactors - second and third - are still in operation.

A special International Donor Meeting on Chernobyl was held November 25, 1997 for “strengthening of the international cooperation and coordination of efforts to study, mitigate and minimize the consequences of the Chernobyl disaster”. (UN document A/52/L.33). This year a meeting of donors on assistance to areas affected by the Chernobyl disaster was held in Geneva on March 26, 1998, chaired by the UN Coordinator of International Assistance for Chernobyl, Under-Secretary General for Humanitarian Affairs, Sergio Vieira de Mello. The adopted inter-agency programme of international assistance addressed a number of problems, among them the need to improve specialized medical care for those who were exposed to radiation and those who are still living in the contaminated areas. The urgently needed contribution are to be made to the UN Trust Fund for Chernobyl or directly to the implementing agencies.

Although 12 years have passed since the worst nuclear explosion in human history, the threat of repetition of this tragedy has not been resolved.

The continuing assistance of the international community is necessary not only to assist the affected populations of Belarus, Ukraine and the Russian Federation, but to successfully prevent another recurrence on a broader basis.

World Health Organization (WHO) project in the Kigoma Region of Tanzania entitled “Community Involvement in Reducing Death in Childbirth”.

Klaus Topfer, Executive Director of the UN’s Environment Programme (UNEP), told a news conference that industrialized countries had almost completely phased out use of the chlorofluorcarbons, or CFCs, which played a major role in ozone depletion. The United Nations top environmental official said saving the world’s protective ozone layer was now largely in the hands of developing countries as well as Russia and ex-communist states. “The responsibility for saving the ozone layer is now to a large extent with developing countries,” he said. The ozone hole, which appears annually over could only be fully eliminated if poorer countries introduced control measures next year and a phase-out of CFC production and use in the year 2000. Topfer also cautioned that the industrialized countries needed to continue supporting the efforts of developing nations in the phase out of these ozone-destroying chemicals.

Hillary Rodham Clinton, First Lady of the United States of America, was awarded the United Arab Emirates Health Foundation Prize for her work with women, children and their families. The prize is given annually during the World Health Assembly and carries an award of US$40 000, which at Mrs Clinton’s request is being donated to a World Health Organization (WHO) project in the Kigoma Region of Tanzania entitled “Community Involvement in Reducing Death in Childbirth”.

Source: Reuters Limited 1998, GENEVA, Tue, 8 Sep 1998

Source: Technology For a Sustainable Future, National Science and Technology Council, Wash. DC, 1-800-ENV-6676

A central goal of an environmental technology strategy must be to promote the use of new and existing technologies that limit the environmental damage from energy consumption. A key means of accomplishing this is to decrease energy used in the developed countries by means of rapid increases in energy efficiency, greater use of renewable energy sources, and increased utilization of low-emission or no-emission energy sources.

Source: Technology For a Sustainable Future, National Science and Technology Council, Wash. DC, 1-800-ENV-6676

Projected Growth in National Population 1990 - 2025

Source: Technology For a Sustainable Future, National Science and Technology Council, Wash. DC.
Cancers among populations living near solid waste landfills where gas is escaping have a four-fold increased chance of developing bladder cancer or leukemia. Landfill gas consists of naturally occurring methane and carbon dioxide, which form inside the landfill as the waste decomposes. As the gases form, pressure builds up inside a landfill, forcing the gases to move. Some of the gases escape through the surrounding soil or move upward into the atmosphere, where they drift away. Typically, landfill gases that escape will carry toxic chemicals such as paint thinner, solvents, pesticides and other hazardous volatile organic compounds (VOCs), many of them chlorinated. The New York State health department tested for VOCs escaping from 25 landfills and reported finding dry cleaning fluid (tetrachloroethylene, or PERC), trichloroethylene (TCE), toluene, 1-trichloroethane, benzene, vinyl chloride, xylene, ethylbenzene, methylene chloride, and chloroform in the escaping gases. Earlier studies of landfills in the US together with the recent New York state study indicate that leukemia and bladder cancer are the most commonly reported cancers among populations living near landfills.


Greenpeace divers have found high levels of the radioactive element Plutonium in sediment samples taken from the end of the Sellafield (England) discharge pipeline. Sellafield, on England’s west coast, is the site of one of Great Britain’s oldest nuclear facilities and first nuclear accidents. Sellafield discharges about 8 million liters of radioactive waste containing about 40 different isotopes into the sea daily. The discharge travels west towards Ireland, north towards Scotland, then into the North Sea where it disperses along the coasts of Western Europe, the Scandinavian countries and the Arctic.


A recently published study by the New York State Department of Health reports that women living near solid waste landfills where gas is escaping have a four-fold increased chance of developing bladder cancer or leukemia. Landfill gas consists of naturally occurring methane and carbon dioxide, which form inside the landfill as the waste decomposes. As the gases form, pressure builds up inside a landfill, forcing the gases to move. Some of the gases escape through the surrounding soil or move upward into the atmosphere, where they drift away. Typically, landfill gases that escape will carry toxic chemicals such as paint thinner, solvents, pesticides and other hazardous volatile organic compounds (VOCs), many of them chlorinated. The New York State health department tested for VOCs escaping from 25 landfills and reported finding dry cleaning fluid (tetrachloroethylene, or PERC), trichloroethylene (TCE), toluene, 1-trichloroethane, benzene, vinyl chloride, xylene, ethylbenzene, methylene chloride, and chloroform in the escaping gases. Earlier studies of landfills in the US together with the recent New York state study indicate that leukemia and bladder cancer are the most commonly reported cancers among populations living near landfills.


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A mothers grief: This picture from Islamabad, Pakistan, tell a poignant story about the age-old bias in favor of the male child. The child being bottle-fed is a girl. Her twin brother was breast fed. The women was told by the mother-in-law that she did not have enough milk for both her children, so she should breast-feed the boy. The infant girl died the next day.

SOURCE: Women, Challenges To The Year 2000, UN, 1991

The pro-male bias affects girls and women in a variety of ways as inferred in UNICEF’s recent report on children in India. India ranks second among the world’s nations in maternal mortality rate, estimated to be between 385-487 per 100,000 live births. Factors that contribute to the high death rate include poor nutrition, lack of general health care for females, early pregnancy and poor neonatal care, and traditional cultural preferences for males. Although India has made significant strides in increasing access to health services for females, one third of children are malnourished and 80% of women are anemic. India leads the world in child laborers, about 25% of India’s children work. Studies verify that girls outnumber boys in many areas of child labor. The number of children living on the street is estimated to be 500,00. 95% of national population has a primary school within a one-kilometer walking distance, 35% percent of children who enroll in primary school do not complete five years. Primary education is not compulsory. 62% of women are illiterate while about half that number, 36% of men are unable to read or write.


Soil erosion and depletion of soil quality and other natural resources by intensive cultivation to produce food for growing populations, are significant problems in many parts of the world. Sediment from soil erosion is the largest pollutant to surface water in terms of volume, and airborne particulates from erosion are a major contributor to air quality problems.

SOURCE: Technology for a Sustainable Future Office of Science and Technology, Wash. DC 20500 1-800-EVN-6676

The US National Climactic Data Center announced that in America, September 1998 was the warmest September on record - almost a degree Fahrenheit above the previous record and nearly 4 degrees F above the average. It is the 9th consecutive month to break the previous all-time record. The average surface temperature of the Earth in the 20th century is warmer than it has been in the past five centuries, according to a US government-funded study. The first globally-focused study of its kind compiled measurements from boreholes in North America, Europe, Africa and Australia to find that average surface temperature increased about 1 degree Fahrenheit (0.5 degree Celsius) during this century, and about 2 degrees Fahrenheit (1 degree Celsius) over the past five centuries. The scientists who authored the study said the data confirm earlier research that there is indeed global warming, a trend that has remained in dispute among some scientists and industrialists. The study backs other, direct evidence of global warming including...
A new class of water pollutants has been discovered during the past six years. Pharmaceutical drugs given to people and to domestic animals—including antibiotics, hormones, strong painkillers, tranquilizers, and chemotherapy chemicals given to cancer patients—are being measured in surface water, in groundwater, and in drinking water at the tap. Large quantities of drugs are excreted by humans and domestic animals, and are distributed into the environment by flushing toilets and by spreading manure and sewage sludge onto and into soil. German scientists report that anywhere from 30 to 60 drugs can be measured in a typical water sample. The long-term consequences of this pharmacological cocktail are unknown. In 1992, researchers in Germany, looking for herbicides in water, found the chemical clofibrilic acid (CA), a drug used by many people in large quantities (1 to 2 grams per day) to reduce cholesterol levels in the blood. Since then, scientists in Germany, Denmark and Sweden have been measuring CA and other drugs in rivers, lakes, and the North Sea. Their work has shown that the entire North Sea contains measurable quantities of clofibrilic acid. Researchers estimate that the Sea contains 48 to 96 tons of clofibrilic acid with 50 to 100 tons entering the Sea each year. The Danube River in Germany and the Po River in Italy also contain measurable quantities of clofibrilic acid. Of more immediate concern to humans is the finding that tap water in all parts of the city of Berlin contains clofibrilic acid at concentrations between 10 and 165 ppt. The water supplies of other major cities remain to be tested.

**SOURCE:** Rachel’s Environment & Health Weekly #614 September 3, 1998
Voices

■ World Information Transfer’s 8th Annual Conference on Health and Environment: Global Partners for Global Solutions will be held at United Nations headquarters in New York on April 22 and 23, 1999, in co-sponsorship with the United Nations Department of Public Information. The topic Environmental Challenges to Health Through Key Stages of Life. The Keynote Speaker will be United Nations Under-Secretary General H. E. Kensaku Hogen. For further information, please contact World Information Transfer, 444 Park Avenue South, Suite 1202, New York, NY 10016; phone: 212-686-1996; fax: 212-686-2172; e-mail: wit@igc.apc.org

■ Youth Forum and the First World Conference of Ministers Responsible for Youth by Taras Prytulla - WIT’s Youth Representative.

The third session of the Forum, which met under the theme “Youth Participation for Human Development” at Braga from 2 to 7 August, was convened by the United Nations in partnership with the Portuguese National Youth Council. Its overall goals were to develop long-term strategies to place the concerns of young men and women on the development agenda, and to help youth organizations better participate in ongoing policy-making at the international level. The Forum focused on three issues – youth policies, youth participation, and youth and human rights. As in previous sessions, a World Youth Expo of about 30 booths was held at the Forum site, to give an opportunity to the partners of the Forum – non-governmental youth organizations, youth-related agencies of the United Nations system and intergovernmental organizations – to present their specific activities. A 15 member drafting committee was elected at the Forum. The most important part of the Forum were discussions in 10 working groups.

There were keynote presentations, thus enabling all participants to start the discussions on common ground. After the first session, most working groups continued the exchange in smaller subgroups to make sure that everyone gets the opportunity to actively contribute. Each working group made three key recommendations for the Braga Youth Action Plan and developed a strategy on how the 3 recommendations can be implemented at the national, regional and international levels.

The outcome of the Forum was the adoption of the Braga Youth Action Plan. More than 400 young people representing youth organizations from 150 countries, and representatives of the United Nations and intergovernmental organizations underlined that the participation of youth is a prerequisite for the development of humankind as a whole. The Action Plan, containing specific recommendations, is a blueprint for action to empower young people to participate in human development.

The World Conference of Ministers Responsible for Youth, convened by the Government of Portugal in cooperation with the United Nations, brought together representatives of some 160 governments – more than 100 at the ministerial level – to find ways of responding more effectively to the needs of young people, met in Lisbon from 8-12 August, 1998. The Conference adopted its agenda and rules of procedure. It also adopted its organization of work, including the establishment of its Main Committee, which considered the draft Lisbon declaration, and its three working groups.

The working groups focused on the following themes, respectively: national youth policies of an intersectional nature; relevance of the themes of the 1985 International Youth Year – participation, development and peace; and social development and major priority issues for action – education, employment, health, drug abuse and others.

Besides, the two very important conferences, Portugal was also in the center of the world community attention, due to the Lisbon World Exposition (Expo’98). Since 1998 was declared the International Year of the Oceans, Expo’98 was placed in the center of Lisbon to raise awareness on the problems menacing the “blue heart” of our planet. It is understandable that without the oceans, no form of life would be possible. However, the level of pollution today is such that the oceans are no longer able to cope alone and need special protection.

The United Nations Convention on the Law of the Sea, which entered into force in 1992, declared all resources of the sea floor, outside national jurisdictions, as “Common Heritage of Humanity”, placing them under international protection. The Convention has already been signed by 159 countries. But legal instruments are not effective if not implemented. The intergovernmental Oceanographic Commission, created by UNESCO in 1960, has been trying to bring the attention of governments and the public at large on the need to protect the oceans. To this end it proposed the proclamation of 1998 as the International Year of the Oceans.

■ The thirty-seventh session of UN Commission for Social Development (CSD) will be held at UN headquarters in New York, 9-19 February 1999. This session will include developing proposals relating to the United Nations General Assembly Special Session in the year 2000, on the implementation of the outcome of the World Summit for Social Development (WSSD). At the conclusion of the World Summit for Social Development - held 6-12 March 1995 in Copenhagen, Denmark - Governments adopted a Declaration and Programme of Action which represented the new consensus on the need to put people at the center of development. 117 heads of State or Government pledged to make the conquest of poverty, the goal of full employment and the fostering of stable, safe and just societies their overriding objectives. Preparations for the Special Session will be getting underway in February 1999, at the Preparatory Committee will meet 17-28 May 1999.
Further information is available by contacting the web site for the UN Commission on Social Development: http://www.un.org/esa/socdev/social.htm, or the Secretariat of the United Nations Commission for Social Development, United Nations Plaza, Room DC2-1370, New York, New York 10017 USA, Telephone: + 1 212/963 6763, Fax: + 1 212/963 3062.

The United Nations Commission for Sustainable Development will hold its seventh session at UN headquarters from 19 to 30 April 1999. The issues for this year's session are Tourism, Oceans, Sustainable Production and Consumption including Consumer Guidelines, and preparations for the five-year review of the Barbados Small Island Developing States (SIDS) Conference. At the seventh session of the Commission on Sustainable Development (CSD-7), tourism will be the economic sector identified for special discussion. The Ad Hoc Inter-sessional Working Group will meet from 22-February to 5 March 1999. Further information is available from Ms. M. Struyvenberg, United Nations, Room S-2950F, New York, NY 10017 USA, Fax: (212) 965-5935, and at the Commission's web site: http://www.un.org/esa/sustdev/

Cairo + 5. The General Assembly of the United Nations will convene a Special Session to review and appraise the Programme of Action of the International Conference on Population and Development (ICPD), held in Cairo, Egypt, June 1994. The Special Session, known as the Cairo or ICPD + 5, will take place at UN headquarters in New York, 30 June - 2 July 1999. The General Assembly resolution convening ICPD + 5 states that "there will be no renegotiation of the existing agreements contained" in the Programme of Action agreed upon in Cairo. The Secretary-General will produce a comprehensive report assessing the progress achieved in implementing the Cairo Programme of Action. The report will also evaluate the obstacles to implementation as well as recommendations for the future. The General Assembly is considering the modalities for NGO involvement.

The Preparatory Session for the ICPD + 5 will be held during the regular annual session of the Commission on Population and Development, UN headquarters in New York, March 24-27.

The Hague Forum, 8-12 February 1999, The Hague, The Netherlands, will review progress and constraints experienced at the country-level in meeting the goals contained in the Cairo Programme of Action over the past five years. The international Forum, organized by UNFPA in collaboration with the Government of the Netherlands, is an input to Cairo + 5.

An NGO Forum on ICPD + 5 implementation and a Youth Forum will be held prior to Forum on the five-year review of the International Conference on Population and Development (ICPD). Dates for the NGO Forum, which will be held at the same site as The Hague Forum, are 6-7 February 1999. The Forums are intended to provide NGOs and young people with an opportunity to articulate the issues that they intend to present and discuss at the 8-12 February Hague Forum. The World Population Foundation (WPF) based in Hilversum, The Netherlands, is serving as the local facilitator and focal point for NGO participation in the NGO and Youth Forums. WPF is a Dutch NGO specializing in population and the promotion of reproductive health and rights, and is chaired by Nicolaas Biegman, former Ambassador of the Netherlands to the United Nations. Ambassador Biegman served as a Vice-Chair at the ICPD. For further information on these forums, visit the WPF site at www.ngo-forum.org.

HOW YOU CAN HELP:

WIT is a non-profit, international, non-governmental organization, in consultative status with the United Nations, dedicated to forging understanding of the relationship between health and environment among opinion leaders and concerned citizens around the world. You can help us with your letters, your time, and/or your donations.
**MISSION STATEMENT**

*We have not inherited the world from our forefathers...we have borrowed it from our children.*  
— Kashmiri Proverb

World Information Transfer, Inc. (WIT) is a not-for-profit (501c3) non-governmental organization in consultative status with the United Nations, promoting environmental health and literacy.

In 1987, inspired by the Chernobyl nuclear tragedy, WIT was formed in recognition of the need to provide accurate actionable information about our deteriorating global environment and its effect on human health to opinion leaders and concerned citizens around the world.

WIT exercises its mandate through:

1. The publication of the World Ecology Report, a quarterly digest of critical issues in health and environment, published in five languages and distributed to opinion leaders around the world, and for free in developing countries.

2. Our annual conference on Health and the Environment: Global Partners For Global Solutions held at United Nations headquarters in New York since 1992. The world’s leading authorities in the field of environmental medicine share their latest findings and discuss possible solutions with leaders in governments, business, organizations and the media.

3. Since 1995, WIT has been providing and promoting humanitarian relief to areas devastated by environmental degradation. Supplies and equipment have been sent to hospitals and orphanages in areas contaminated by the Chernobyl fallout. This program has been rapidly expanding since its inception.

4. Centers for Health & Environment providing centralized scientific data pertaining to health and sustainability issues. The objective of the Centers is to provide continuous monitoring, ongoing research, education and implementation of corrective programs. The first center was opened in Kiev in 1992 and moved to Lviv in 1996. The second center opened in Beirut, Lebanon in 1997.

WIT currently operates from headquarters in New York City with regional representative offices in Australia, Austria, Canada, China, Colombia, Egypt, Germany, Holland, Honduras, India, Iran, Israel, Lebanon, Nigeria, Pakistan, Philippines, Russia, Switzerland, Ukraine.

WIT is on the Executive Board of CONGO (Conference of Non-Governmental Organizations in Consultative Relationship with the United Nations) and is vice-chair on the DPI/NGO Executive Committee.

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World Information Transfer, Inc.  
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444 Park Avenue South, Suite 1202  
New York, NY 10016  
Telephone: (212) 686-1996  
Fax: (212) 686-2172  
E-Mail: wit@ige.apc.org

- Dr. Christine K. Durbak  
  Founder & Editor-in-Chief
- Frances Viets  
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- Carolyn T. Comitta  
  WIT Regional Director - North America
  18 West Chestnut Street  
  West Chester, PA 19380
  Tel: (610) 696-3896 Fax: (610) 430-3804
- Farouk Mawlawi  
  WIT Regional Director - Middle East
  Bir Hassan  
  United Nations Street  
  Beirut, Lebanon
  Tel: (061) 3-305854 E-Mail: fmawlawi@intracom.net.lb
- Dr. Hamid Taravaty  
  WIT Regional Director - Middle Asia
  No. 19, Pastour 16
  Mashad, Iran
  Tel: (98) 51 641-942 Fax: (98) 51 711-896
- Chris Georgean  
  WIT Regional Director - South Asia
  1644 Bayview Ave., Suite 1202  
  Toronto, Ontario, Canada M4G 3C2
  Tel: (416) 485-8252 Fax: 485-8049 E-Mail: moorehed@interlog.com

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POINT OF VIEW
Sustaining Women’s Health: Promise of Prevention

Rose is 35 and she has been sexually active since she was 16 years old. Recently she has been experiencing lower abdominal pain, bleeding after intercourse, and an abnormal discharge. Her three children have been immunized and she was recently treated at her local clinic for a pelvic infection. Rose doesn’t know it, but next year she will die from cervical cancer because she was never offered a screening test.

Each year over 200,000 women die from a preventable disease—cervical cancer. Worldwide it is the second most common cancer among women and in developing countries, it is the leading cause of female cancer deaths. Over 90% of cervical cancer cases are caused by a sexually transmitted organism—human papilloma virus (HPV) and for most women infection occurs before age 30. Among deaths due to STDs, cervical cancer ranks the highest globally. Although women are generally infected with HPV before their 30’s, for the 20-30% whose infection progresses to cancer, this progression occurs over a 10 to 20 year period. Cervical cancer is a debilitating and painful disease, but the progression could be prevented.

Why if cervical cancer is preventable are the rates so high in developing countries? Because these women do not have access to cervical cancer prevention programs. In developed countries, where national screening coverage rates exceed 70%, mortality due to cervical cancer has declined markedly over the past few decades. In developing countries, however, only 5% of the women have ever been screened. This imbalance in coverage is not because proven screening and treatment technologies do not exist. They do. It is because the infrastructure (including facilities such as clinics, hospitals, transportation, electricity, medical supplies and human resources including nurses, doctors, and cytotechnicians) in developing countries cannot continuously support a national prevention program based on the current screening standard—the Pap smear. Worldwide efforts have been launched to improve the quality of and access to the Pap smear; however, the fact remains that in most countries in which cervical cancer poses the greatest public health problem, the logistics involved in sustaining a quality cytology-based system are too cumbersome and cost-prohibitive.

Do options exist? Yes. One alternative to the Pap smear is visual inspection. Visual inspection involves wiping the cervix with acetic acid (vinegar) and then looking at the cervix with or without magnification to see if there are abnormalities. Visual inspection with acetic acid (VIA) meets the requirements for a good screening test. It’s safe, practical, affordable, available and effective. While recent findings have consistently shown that VIA accurately identifies the majority of cases of true disease, improvement in its specificity would render this technique even more viable as a screening option. Because VIA is noninvasive, inexpensive and can be performed by all levels of healthcare workers, in almost any setting, it could be a valuable alternative to conventional screening programs.

For cervical cancer prevention programs to be effective, widely accessed screening activities must be linked to treatment. Treatment must be as accessible as screening, and it must be safe, acceptable and affordable. Effective treatment technologies for precancerous lesions are available which could be offered on a wide-scale basis at a safe and lower cost than current treatment options in use in developing countries. How VIA based screening and treatment options are implemented at the local level will depend on the amount of attention paid to properly informing healthcare providers and the women they serve about the advantages and disadvantages involved. With this promise of prevention, countries committed to eradicating this important public health problem should now carefully consider how they could maximize access to screening and treatment given the constraints of current healthcare budgets in their countries. [See VOICES in this issue for contact information]