



World Ecology Report

Critical Issues in Health and the Environment

Knowledge brings new choices. Education brings new knowledge.

SPECIAL FOCUS: *Hope Through Human Development*

Approaching the Millennium, the United Nations has decided to review major issues of the Twentieth Century in order to set goals for the next generations. Between 1990 and 1996, it had convened international conferences on topics of major socio-economic developmental importance such as children, the environment, civil rights, small islands, population, social development, women, habitat and food. These conferences and summits were permeated by a hope for a better future amid widespread sense of urgency that reflects the current challenges confronting individual nations and the international community as a whole.

The Conferences, including their preparatory processes, substantially contributed to an increased level of international awareness regarding outstanding issues faced by the international community. Profound discussions on each of the broad areas of concern led to a comprehensive evaluation of what has been achieved and what is now required and which new priorities must be set. A search for consensus in terms of appropriate balance between national and international action became an important policy goal forged during the course of these United Nation's initiatives.

If awareness alone were the criteria, the conferences played a catalytic role in renewing the quest for a better integration of economic and social facets into the human development process. Each conference adopted a Declaration and Program of Action which reflected both the



The fight against poverty must become a central and guiding objective of all development efforts.

SOURCE: *Choices*, UNDP, Aug. 99

national and international dimensions of developmental efforts, recognizing that while social and economic development remain a national responsibility, the support, collective commitment and efforts of the international community are essential for achieving these goals. The programs or Plans of Action proposed a diverse and creative mix of strategies. Several of the Conferences set up indicators and goals to judge the implementation of these programs and have already been reviewed by the UN's General Assembly to evaluate their actual progress towards their specified world goals. Others

will be reviewed in the next two years. However, from the poor results of the five year review of UN Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 and the Conference on Population and Development convened in Cairo in 1994, it appears that a five year review framework may not be a sufficient period of time to elucidate real changes.

Perhaps the General Assembly's request that reviews be conducted in five years, as stipulated in the Agenda 21, has placed an untenable goal for policy review and required other major conferences to set the same review goals. Five years is a very short period of time to adequately implement and then evaluate changes on a global basis. If we look at the space between the environment and development conferences held in Stockholm in 1972 and Rio twenty years later, important changes could be documented over a

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Working for survival...even if schooling is free, they attend only if they can solve the problem of the daily meal.

SOURCE: Sources, UNESCO, #113, June 99

twenty year span. The space between the population and development conferences in Mexico City (1984) and in Cairo (1994) was ten years as was that between the conferences on women's development held in Nairobi in 1985 and Beijing in 1995. Significant signs of change appeared during the a decade.

SETTING THE STAGE

The first of the major conferences to be reviewed, the United Nations Conference on the Environment and Development (Rio de Janeiro 1992) Earth Summit +5, took place in June 1997 at UN headquarters in New York. The UN General Assembly conducted an in-depth, honest, and participatory political assessment of progress achieved since Rio, and laid the ground for continuing work. During the review, governments acknowledged that the global environment has continued to deteriorate since 1992, with rising levels of greenhouse gas emissions, toxic pollution and solid waste. Renewable resources, notably fresh water, forests, topsoil and marine fish stocks, continue to be used at rates that are clearly unsustainable.

On the positive side, growth in world population is slowing, food production seems to be rising, local air and water quality is improving in many developed countries and the majority of people are living longer and healthier lives. At the

same time, the number of people living in poverty has increased, and gaps between rich and poor have grown, both within and between countries.

Of particular note was the reconfirmation of the financial commitments and targets for official development assistance (ODA) made by industrialized countries at the Earth Summit; and call for intensified efforts to reverse the downward trend in ODA.

The General Assembly in its review of the International Conference on Population and Development ICPD (Cairo 1994) found that the implementation of the Programme of Action has shown results. Mortality has continued to fall, the broad-based definition of reproductive health is more widely accepted, there is a wider availability of family planning, important steps have been taken in the area of migration and there has been a growth in the number of civil society organizations actively involved in the partnership implementation of the Programme of Action.

However, for some countries and regions, progress has been limited and in some cases setbacks have occurred. Women and the girl child still face discrimination; HIV/AIDS pandemic has led to rises in mortality in some countries; where mortality is also augmented by infectious and water-borne diseases; maternal mortality and morbidity remain unacceptably high; and access to reproductive health information and services are still lacking. Furthermore, the impact of the financial crisis in countries of Asia is affecting the health and well-being of individuals; and the plight of refugees and displaced persons remains unacceptable.

The review found that funds forecast for implementation of badly needed family planning services had not materialized and that the search for "new and additional resources" is not likely to be successful.

REVIEWS TO COME

The GA review of the Conference on Small Island Developing States (SIDS), which took place in Barbados in 1994, was reviewed in September 1999. With the Commission on Sustainable Development as its preparatory committee, in April participants recognized that SIDS are the custodians of large areas of the world's oceans and significant biodiversity resources, and reaffirmed the Programme of Action as the blueprint for

the sustainable development of SIDS. Attention was drawn to the progress made by SIDS in implementing sustainable development strategies through action at the national and the regional level.

However, the vulnerability of SIDS was also recognized in relation to their ability to withstand external economic shocks, for example, as a result of fluctuating commodity prices and susceptibility to natural disasters. Participants at the April prepcom placed particular emphasis on the early development of a vulnerability index to supplement existing gross domestic product (GDP)-based criteria in the assessment of eligibility of SIDS for concessional finance.

Sustainable development strategies are hampered by insufficient resources due particularly to declining levels of official development assistance (ODA). There is considerable concern that the decline in financial resources might reflect a lessening of commitment made at the Barbados Global Conference. The up-coming special session could provide an opportunity for all countries to reaffirm commitments that had been made at the time the Programme of Action was adopted. In this regard, a recent SIDS/Donors meeting was a positive step. It was emphasized that the special circumstances of SIDS should be taken into account in the next phase of negotiations under the World Trade Organization because of concern of adverse effects on SIDS of globalization and trade liberalization. PrepCom Participants also expressed concern at the risks to SIDS of transshipment of hazardous wastes and materials through their jurisdictions. In this regard, there was a proposal to have the Caribbean Sea recog-

Refugees on the Move

The six leading countries of origin:

Sierra Leone	450,000
Somalia	419,000
Sudan	374,000
Eritrea	320,000
Burundi	300,000
Angola	255,000

The four leading host countries:

Guinea	470,000
Sudan	390,000
Tanzania	350,000
Ethiopia	317,000

SOURCE: Refugees, UNHCR, Vol. 2, #115, 1999

nized as a special area in the context of sustainable development, bearing in mind the sub-region's high degree of vulnerability as a result of the large number of ships with hazardous cargo traversing the Caribbean.

The World Summit for Social Development (Copenhagen 1995) which will be reviewed in June of 2000 was probably the most progressive of the conferences acknowledging achievements in many areas of social and economic development. It underscored the existence of disadvantaged and vulnerable groups within many societies whose interests needed to be addressed for a people-centered framework for social development to become the norm. It recognized that social development could not be isolated from ongoing political, economic and cultural changes and noted that the globalization of the world economy was one of the major factors affecting social policies.

The three-pronged approach adopted by the Summit committed the Member States of the UN to eradicating poverty in the world, to promoting the goal of employment as a basic policy priority, and to achieving social integration in a stable and equitable national context based on respect for human rights, as well as maximal participation of all people in decisions on non-discrimination and affecting their well-being. By admitting both the difficulties and the challenges facing the international community at the national and international level in the social field, the Member States took a major step forward in tackling the socioeconomic development challenge, while charting new priorities for social action.

The 1997 Report on the World Social Situation which will be one of the main documents to be discussed during the review, highlights the fact that globalization widens the opportunities for economic growth, but the process of globalization has its risks and costs, including social costs. The political and social costs of neglect, passivity or inaction are very high.

Social development cannot be isolated

"If a free society cannot help the many who are poor, it cannot save the few who are rich."
—John F. Kennedy

from ongoing political economic and cultural changes. The diversity and democratization that has expanded since the end of the 1980s has had a powerful effect on governance and civil society. The end of the Cold War, and the disappearance of the East-West ideological divide, have given rise to numerous expectations in the economic and social fields that are yet to materialize. Now that the economic restructuring in the transition economies has been set in motion, more sizable economic gains have yet to match advances in democracy and freedom. At the same time, the constraints and structures previously held in place by the ideological and military confrontation of the Cold War have fallen by the wayside, making the world much less predictable. As a result, some ethnic, national and religious animosities which remained dormant for centuries, have surfaced in various forms in different regions, particularly in nation states that have been affected by disintegration. In their most extreme manifestations the pent up frustrations and animosities have led to bloodshed and war.

New and old threats still plague the international community. Major environmental problems put at risk human well-being around the world. Terrorism continues as a major, insidious threat. Corruption, criminality, crossborder crime and the drug trade with the organized crime behind it, present an ever-increasing danger. Escalation of violent conflicts, genocide and abuses of human rights became factors of renewed concern to the international community. Global issues have gained in importance for multilateral bodies thus replacing old issues related to the ideological East-West confrontation. The post-Cold War era permitted, and even compelled, the UN to shift its focus to those issues.

All of these Conferences generated extensive studies written by governments and by non-governmental organizations. Some are in themselves elucidating important trends which need to be



Getting water at the only pump in the village

SOURCE: *Choices*, UNDP, Aug. 99

addressed. The research completed for the Habitat II Conference on Human Settlements (Istanbul 1996) was exhaustive. The World Food Summit devoted a good deal of attention to the critical role of water for increased food production.

As the last year of the twentieth century ends, the world social situation challenges societies with its diversity and complexity. Progress achieved on many fronts by different nations co-exist with setbacks and even reversals of social gains made earlier. The century ends with the knowledge that we each affect the other—for good or for ill—that what occurs in one area of the world influences people living at great distances. The series of UN conferences surely rested on this basic fact. The bold attempts by governments to improve the human condition through international development policy characterizes the 1990s. Yet at the same time, the sheer number of humans inhabiting the planet now, concentrated in cities and along the world's coasts, severely strains the future.

SOURCES:

- *Earth Summit+5, Programme For The Further Implementation Of Agenda 21*, June 1997 United Nations Earth Summit
- *Report on the World Social Situation 1997*, from www.un.org/esa/socdev/rwss97.htm
- General Assembly Document A/S-21/5/Add.1 Report of the Ad Hoc Committee of the Whole of the Twenty-first Special Session of the General Assembly
- United Nations Sustainable Development Small Islands from www.un.org/esa/sustdev/sidspec.htm
- *Worldwatch News Release. Emerging Water Shortages* from www.worldwatch.org/alerts/990717.html
- Worldwatch briefing "Reinventing Cities," www.worldwatch.org/alerts/990619.html

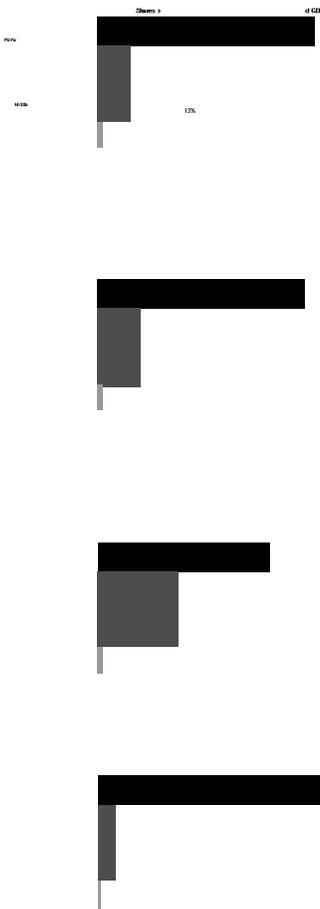
HEALTH AND ENVIRONMENT

Health Perspectives in a Globalized World

Dr. Fabrizio Bassani, Executive Director, New York Office, WHO, addressed WIT's Eighth International Conference and opened the DPI/NGO Conference workshop (September 17, 1999) organized by WIT, co-sponsored by WHO and PAHO. We reprint his presentation to the Workshop.

Thank you Dr. Durbak and good afternoon Ladies and Gentlemen. It is a great pleasure to be here with you today representing our Director General, Dr. Gro Harlem Brundtland, who has had a long association and deep commitment to environmental matters and issues of global health.

Stark disparities between rich and poor in global opportunity



SOURCE: Human Development Report 1999

Since the beginning of her tenure as Director General, Dr. Brundtland has been a strong advocate for integrated approaches to health, environment and development. As a result, WHO has conducted a fundamental review of its contribution to sustainable human development and is now ready to play an ever more effective and integrated role in advancing the global development agenda. For WHO, that means that health must move to the centre of the development process. WHO, however, cannot do this alone. Progress demands closer interaction between all parts of society: governments, NGO's, the private sector and within the United Nations system itself.

In this era of globalisation, co-operation and interaction are even more essential today than in the past. As Dr. Brundtland stated in her speech to the 51st World Health Assembly, "Globalisation is opening up new opportunities for growth and progress. But the benefits are not adequately distributed. Globalisation has also brought new and critical threats to health and the environment."

Because of globalisation of the world economy, local and national approaches and strategies may only have limited success. The complex processes that define globalisation can be most clearly seen when considering certain health, environment and development realities. Ozone depletion and climate change partly caused by local industrial actions threaten the survival and quality of life of all people. Agriculture and land use practices also have direct impact on people's health. Consequently, we must prepare better strategies to link health and trade issues. To mention just a few common concerns in this area, We must work toward the harmonization of occupational and environmental health norms; Find ways to balance the need to protect people's health against possible risks on one side and avoiding the use of sanitary regulations as trade barriers on the other; Look to the trade of services and products related to health.

The era of globalisation is only start-

ing, bringing with it many challenges, which we must face in addition to those of the past. To successfully address these challenges, we need to focus more attention on environment, health and development problems which disproportionately affect the poor, and other at risk groups such as young children, women and the elderly. We need to address the social, economic health and environmental impact of development policies. We need to concentrate not only on the indirect linkages and the broader driving forces associated with the development process at large. And we need to ensure that health services, including the environmental health services, are adequately equipped to take on this broad mandate.

WHO working alone cannot do this. We need your support and we must find ways to work more closely together if we are to be successful. Thank you.

Sustainable Development and Healthy Environments

Yasmin Von Schirnding, M.D., World Health Organization, Geneva, Abstract from presentation made during WIT's Eighth International Conference on Health and Environment: *Global Partners for Global Solutions.*

Despite considerable improvements in health over the past decades, concern about the health impacts of the environment and development process has been growing in both the developed and developing countries of the world. Still today, environmental factors remain a major cause of death and disability throughout the world, most particularly in developing countries. This trend is likely to continue into the new millennium.

Both lack of development leading to poverty, as well as development resulting in over consumption and the depletion of resources; have resulted in severe environment and health problems throughout the world. Coupled with the growing awareness of the links between industrialization, the environment and human health, there is continued recognition of the key role that access to basic amenities such as water, sanitation and



Globalization can either resolve or add to the issue of deprivation.

SOURCE: *World Press Review*, Sept. 99

shelter play in promoting health and development.

There is a need to obtain a better understanding of the complex relationships and linkages between economic development, environment and human health in order to set policies and strategies which are evidence—and science-based—and which reflect the needs and priorities of countries in differing stages of economic development. Increasingly, developing countries today face a double burden of disease, namely “Traditional” health problems associated on the one hand with poverty and a lack of development, and new and emerging health problems associated with rapid development and industrialization on the other.

The death and disease profiles in these countries frequently reflect this duality. Superimposed on this is the fact that global problems caused by consumption of energy and resources by wealthy countries (for example greenhouse gas emissions and associated threats to the global climate) are likely to have significant implications for poor countries, which frequently have the last resources to deal with such problems.

This presentation will give an overview of some of the key health, environment and development challenges facing communities, govern-

ments and institutions worldwide at the dawn of the 21st century with reference to special at-risk groups such as the very young, the elderly, women and the poor. It will also discuss the implications for policies and strategies, which need to address simultaneously the global and local dimensions of problems, the intersectorial nature of problems, and the burden of risk borne by the poor and marginalised groups. Finally, the presentation will highlight innovative approaches and measures taken by WHO to address such issues on a global basis.

Globalization, Trade and Health Presented in the WIT/WHO/PAHO Workshop on "Health Perspectives in a Globalized World", held at the UN in New York, on September 16, 1999, by Dr. Cesar Vieira, Program Coordinator, Public Policies and Health, Division of Health and Human Development, PAHO/WHO, Washington, DC.

Globalization can be characterized as the trans-nationalization of the production and consumption of goods and services through the movement of capital, labor, technology, information, ideas and values. This seems to be an unavoidable process, which affects the socio-economic, cultural, political and environmental dimensions of develop-

ment of all nations. Because of its wide spectrum, globalization also affects health determinants as well as peoples' perceptions about health and their demands for health care. In the same way, it affects the ability of nations—States, civil society and markets—for coping with their citizens' demands for health care.

Some of the consequences of globalization can be very damaging to the health situation of the population, particularly in the case of the most vulnerable social groups. At the same time, globalization can have a negative impact on those groups access to, and utilization of health care. As Dr. Gro Harlem Brundtland, WHO's Director General has recently stated, globalization is opening up new opportunities for growth and progress. But its benefits are not adequately distributed and it has also brought new and critical threats to health and the environment.

However, globalization also offers favorable opportunities for the health of the population in general and for the health sector in particular. These benefits are not automatic outcomes of such opportunities because their obtainment requires an effort from the country or society willing to enjoy them. Some of these positive impacts include:

- the dissemination of concepts and methods about health promotion and protection;
- the universalization of knowledge of the rights and obligations related to the health;
- the possibility of access to new health technologies; and
- the exchange of managerial expertise in the health sector.

In addition to the above, globalization is also affecting the health sector itself, which is responsible for an annual global expenditure of about US\$3 trillion. Such an influence can be observed particularly in relation to the delivery of health services, the development of health personnel and the production and trade of most health care inputs.

Considered until very recently a “non-tradable” sector, health care is rapidly becoming an important player in international trade. Through its own insertion in the globalization process, the

health sector can make a positive contribution to economic development. But this can also affect the access of vulnerable groups to health care, particularly when the definition of an "exportable surplus" provokes a domestic shortage of health care.

The international trade in health care usually takes place through four mechanisms:

- movement of patients: like the thousands who come to the US, go to Europe, Cuba or many other countries, looking for tertiary care not available in their home countries;
- movement of providers: as the case of many countries that are specializing themselves in the training and export of health personnel;
- commercial presence: for example, health insurance companies and health care providers are increasingly investing abroad or making joint-ventures with commercial counter-parts in other countries, and
- Trans-border services: which, thanks to the technological development of the health sector, allows a provider to take care of a patient many miles away, among other alternatives.

The most appropriate strategy for dealing with the health impacts of globalization would involve maximizing its positive effects and minimizing the negative ones. This requires the participation of the State, civil society and the private sector, articulated in a multisectoral perspective that aims beyond the sphere of activity of the health sector. It is also necessary to adopt international strategies in order to deal with health implications of globalization that fall beyond the capacity of response of individual national States.

Like what is happening in other regions of the world, the American countries are participating in a series of agreements to manage globalization and its effects, in a process that the UNECLAC has called "open regionalism". These agreements constitute a new supranational or international level of governance in the Americas and they include:

- agreements within the global context of WTO (GATT, GATS, TRIPS and SPSM) and
- trade and integration agreements at

regional, sub-regional and bilateral levels (like FTAA, NAFTA, CACM, CARICOM, ACS, ALADI, Andean Community and MERCOSUR).

In such a complex framework of supra-national governance, negotiations interesting the health sector are often very time and resource consuming. For instance, over the past two years the MERCOSUR and Andean countries have been discussing the regulation of pharmaceuticals at seven instances simultaneously,

In order to monitor these treaties and include health priorities in the respective agendas, it is necessary to strengthen the capacity of the ministries of health to deal with integration and trade issues. Traditionally ministries of health have been absent of this process, that is usually led by the ministries of trade, finance and foreign affairs.

A successful participation in these different processes requires a close collaboration between health, trade and foreign relations authorities. It also requires an active involvement of the civil society and the private sector, for the appropriate definition and effective defense of the "national interests" in international negotiations.

WHO is working closely with WTO and UNCTAD in order to further promote the health agenda within the context of globalization, trade and integration. Just last year a Health and Trade unit was established within the Sustainable Development and Environment cluster of WHO, demonstrating the unequivocal priority this topic has received from WHO's new Director General.

For WHO, the health sector needs to be seen as a partner in international trade. This requires better strategies for linking health and trade issues, like the harmonization of occupational and environmental health norms. It is also necessary to reach a balance between the protection of people's health against possible risks on one side and avoiding the utilization of sanitary regulations as barriers against trade on the other. At the same time, it is necessary to give attention to other areas that become more crucial as globalization proceeds, like the trade of services and products

related to health care.

The very history of PAHO gives us many lessons about the possibility of a mutually convenient collaboration between the health and trade sectors. When it was created almost a century ago, PAHO was given the primary responsibility of assisting its Member Countries in the fight against communicable diseases and the sanitary control of ports and ships, with the purpose of facilitating international trade in the region.

Next month in Havana, Cuba, it will be celebrated the 75th anniversary of the Pan American Sanitary Code. This pioneer treaty was adopted by the American countries as a collective effort to protect the health of their populations through the sanitary control of key determinants including international trade.

More recently PAHO has supported its Member Countries to advocate the inclusion of health priorities in the policy agendas of the integration and trade agreements that they are negotiating at global, regional and sub-regional levels. All these activities reflect the importance of globalization, trade and integration issues within the context of "Pan Americanism and Equity", the top priorities for PAHO defined by its Director, Dr. George A. O. Alleyne.

Next November in Washington, WHO and PAHO will be promoting a conference on Globalization, Trade and Health. During that conference representatives from Health and Trade Ministries from all WHO Regions will define appropriate strategies and mechanisms for addressing health priorities in the forthcoming WTO Millennium Round dedicated to the negotiation of the General Agreement on Trade in Services.

Summarizing, globalization can have positive and negative impacts on people's health, as a consequence of the changes it provokes in societies, economies, States and the health sector itself. If they want to maximize the positive impacts and to minimize the negative ones, health authorities, parliaments, NGOs, international organizations and the private sector need to play an active role in the negotiation of integration and trade agreements now taking place at global, regional, sub-regional and bi-lateral levels.

WARNING: Mercury in Vaccines

Thimerosal is a mercury-containing preservative used in some vaccines. Thimerosal contains 49.6% mercury by weight and is metabolized to ethyl mercury and thiosalicylate. Ethyl mercury, much like methyl mercury, is associated with neurotoxicity in high doses; developmental effects may occur in infants. As part of an ongoing review, the U.S. Food and Drug Administration (FDA) has determined that infants who receive thimerosal-containing vaccines may be exposed to more mercury than recommended.

Guidelines have been established by the U.S. Environmental Protection Agency (EPA), the FDA, and the Agency for Toxic Substances and Disease Registry (ATSDR) in an effort to minimize preventable exposures to mercury from food and other environmental sources. EPA has recommended an allowable daily exposure of no more than 0.1 microgram of mercury per kg per day, while ATSDR has recommended no more than 0.3 microgram per kg per day and FDA has recommended a maximum of 0.4 microgram per kg per day. A newborn infant weighing 7 pounds (3.1 kg) who is given a hepatitis B vaccine receives 12.5 micrograms of mercury. This is ten times the maximum daily mercury exposure recommended for this size infant.

Consequently, the American Academy of Pediatrics (AAP) has stated that pediatricians should minimize children's exposure to thimerosal, but they should not compromise the health of children by withholding routinely-recommended immunizations. It is very important to immunize all children against childhood diseases; adjustments in timing within the ranges proposed in the immunization schedule provide opportunities to minimize exposure of infants to mercury. For example, pediatricians may choose to postpone hepatitis B vaccination in infants born to HbsAg-negative women until the infant is 6 months old. Infants born to HbsAg-positive mothers should receive hepatitis B vaccine at birth. The benefits and risks of vaccines containing mercury should be discussed with parents.

The American Academy of Pediatrics has urged government agencies and pediatricians to work toward reduction of children's exposure to mercury from all sources, including foods with known high mercury content. Also, manufacturers were urged to work toward rapid reduction or elimination of mercury-containing preservatives from immunizations.

Thimerosal Content in Some U.S. Licensed Vaccines

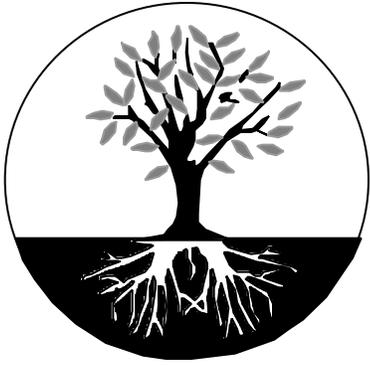
Vaccine	Brand Name	Manufacturer	Thimerosal Concentration ¹	Mercury ug/0.5 ml
DTaP	Acel-Imune	Lederle Laboratories	.01%	25
	Tripedia	Pasteur Merieux Connaught	.01%	25
	Certiva	North American Vaccine	.01%	25
	Infanrix	SmithKline Beecham	0	0
DTwP	All Products		.01%	25
DT	All Products		.01%	25
Td		MPHL	.003%	8.25
		All others	.01%	25
TT	All Products		.01%	25
DTwP-Hib	Tetramune	Lederle Laboratories	.01%	25
Hib	ActHIB	Pasteur Merieux Connaught	0	0
	TriHIBit	Pasteur Merieux Connaught	.01%	25
	HibTITER (multi-dose)	Lederle Laboratories	.01%	25
	HibTITER (single dose)	Lederle Laboratories	0	0
	Omni HIB	SmithKline Beecham	0	0
	PedvaxHIB liquid ²	Merck	0	0
	COMVAX ³	Merck	0	0
ProHIBit ⁴	Pasteur Merieux Connaught	.01%	25	
Hepatitis B Virus	Engerix-B	SmithKline Beecham	.005%	12.5
	Recombivax HB	Merck	.005%	12.5
Hepatitis A	Havrix	SmithKline Beecham	0	0
	Vaqtia	Merck	0	0
IPV	IPOL	Pasteur Merieux Connaught	0	0
OPV	Orimune	Lederle Laboratories	0	0
MMR	MMR-II	Merck	0	0
Varicella	Varvax	Merck	0	0
Rotavirus	Rotashield	Wyeth-Ayerst	0	0
Lyme	LYMERix	SmithKline Beecham	0	0
Influenza	All		.01%	25
Meningococcal	Menomune A, C, AC and A/C/Y/W-135	CLI	.01%	25
Pneumococcal	Pnu-Imune 23	Lederle Laboratories	.01%	25
	Pneumovax 23	Merck	0	0
Rabies	Rabies Vaccine Absorbed	Bioport Corporation	.01%	25
	IMOVAX	Pasteur Merieux Connaught	0	0
	Rabavert	Chiron	0	0
Typhoid Fever	Typhim Vi	Pasteur Merieux Connaught	0	0
	Typhoid Ty21a	Vivotef Berna	0	0
	Typhoid vaccine	Wyeth-Ayerst	0	0
Yellow Fever	YF-Vax	Pasteur Merieux Connaught	0	0
Anthrax	Anthrax vaccine	BioPort Corporation	0	0

¹ A concentration of 1:10,000 is equivalent to a 0.01% concentration. Thimerosal is approximately 50% Hg by weight. A 1:10,000 concentration contains 25 micrograms of Hg per 0.5 mL.

² A previously marketed lyophilized preparation contained .05% thimerosal.

³ COMVAX is not approved for use under 6 weeks of age because of decreased response to the Hib component.

⁴ ProHIBit is recommended by the Academy only for children 12 months of age and older.



GOOD NEWS

■ China, the most populous developing country in the world, has made the population issue a strategic one and has integrated it into the country's overall program for social-economic development. China's population program focuses on publicity and education campaigns along with providing quality services in reproductive health and family planning. Special attention has been given to combining the family planning program in the rural areas with economic development, poverty-alleviation, universal education programs and improvement of women's status. Although China's family planning program has stabilized its population, and promoted social-economic development, China is still faced with grave challenges in the field of population and development. The annual increase of about 12 million people to its population exerts great pressure upon its social-economic development, resource utilization, environmental protection, education, medical care and creates many new problems.

SOURCE: Xinhua News Agency: 6/30/99

■ In what is considered the largest gift ever by a living person to a foundation, the chairman of Microsoft, William H. Gates, and his wife, Melinda French Gates, have made a gift of \$5 billion to the William H. Gates Foundation. The William H. Gates Foundation focuses on child and maternal health in developing countries, and education and community assistance in the Pacific Northwest. In the last year, the Gates Foundation has

given more than \$200 million to health-related causes, including \$25 million for the International AIDS Vaccine Initiative, \$50 million to prevent maternal and child mortality, \$20 million for international family planning efforts and \$100 million toward children's vaccines. The William H. Gates Foundation also announced a \$50 million grant to the Program for Appropriate Technology in Health, an international organization based in Seattle, to promote the development of a new vaccine to prevent malaria, which infects 300 million to 500 million people a year.

SOURCE: *The New York Times*: June 3, 1999

■ Subia Hashmat, an 11-year-old girl here has become the youngest person ever to clear the Microsoft Certified Professional (MCP) examination. Subia, who does not have a computer at home, took the title from her 12 year old neighbor Supriya Singh, the youngest person to receive the award up to that point. The MCP computer based examination is conducted worldwide by the Microsoft Corporation and certifies successful students to troubleshoot its software products. The neighbourhood friends recently attempted the MCP examination together. On her second attempt, Subia not only passed the examination but also broke Supriya's record because she was one year younger. Both girls trained at the National Institute of Professional Studies, a local computer training institute. Subia's father, a surgeon, has agreed to buy her a computer.

SOURCE: "Patrick O'Beirne" as reported to the *Global Knowledge for Development List*, gkd@phoenix.edc.org

■ The Costa Rican Institute of Tourism has developed a program called the Certification for Sustainable Tourism (CST) that seeks to promote tourism related businesses that comply with sustainable tourism standards. The CST website hopes to make sustainability criteria a prime factor in decision-making regarding the selection of hotel operations. The website, developed in English and Spanish, includes a database of evaluated hotels. www.sustainable-tourism.co.cr

■ In spite of projections that Mexico's population will reach 100 million next year, demographic experts say the country will likely achieve zero population growth by the middle of the next century. Fertility rates in Mexico are falling due to changing attitudes about families, reported. Mexican youth now plan to have fewer children than their parents, and many fewer than their grandparents. The average number of children per woman used to average about seven. Forty years later the average has been reduced to 2.5 children per woman. The drop in birth rate is evident primarily among Mexico's urban middle class. A 25-year-old government campaign to encourage smaller families has also played a role in changing perspectives.

SOURCE: *Public Radio International (PRI) The World Program*, 7 Sept 1999.

■ UNEP launched its Global Environment Outlook 2000 (GEO-2000) report in September. The report is the most authoritative assessment of the environmental crisis facing humanity in the new millennium. Based on contributions from UN agencies, 850 individuals and more than 30 environmental institutes, GEO-2000 outlines progress in tackling existing problems and points to serious new threats. It concludes by setting out recommendations for immediate, integrated action. Its key finding is that: "The continued poverty of the majority of the planet's inhabitants and excessive consumption by the minority are the two major causes of environmental degradation. The present course is unsustainable and postponing action is no longer an option." In a survey conducted by the Scientific Committee on Problems of the Environment for GEO-2000, 200 scientists in 50 countries identified water shortage and global warming as the two most worrying problems for the new millennium. At the core of GEO-2000's recommendations is a reinforcement of the Earth Summit Agenda 21's call for environmental integration. The report states that: "The environment remains largely outside the mainstream of everyday human consciousness and is still considered an add-on to the fabric of life." GEO-2000 was edited by Robin Clarke

and published by Earthscan. E-mail earthinfo@earthscan.co.uk; Telephone: +44-171 2780433; Fax: +44-171 2781142.

SOURCE: UNEP News Release 1999/103

■ President Clinton pledged that the United States would forgive 100% of the debt owed to it by impoverished countries. He offered this promise during a speech at the annual meetings of the International Monetary Fund and World Bank, September 29. Clinton's pledge was conditional on countries using the debt forgiveness to finance basic human needs. The commitment was the first of its kind from any of the Group of Seven. The face value owed to the US from the countries in question is about \$5.7 billion. However, the debt is valued at much less than its face value so that the entire amount could be financed with Clinton's \$1 billion budget request.

SOURCE: <http://dailynews.yahoo.com>

■ The United Nations Environment Programme (UNEP) has opened an online book shop at www.earthprint.com. The book shop allows customers to order copies of all UNEP publications and covers topics such as environmental law, climate, industry and environment and biodiversity. Customers using the web site have the choice of looking for books from specific categories, environmental themes, and quick search options. Once a selection has been made, customers have various payment and delivery options. The book shop is being jointly operated by UNEP (www.unep.org); GRID-Arendal (www.grida.no), and SMI Distribution Services (United Kingdom). SMI is the contracted worldwide distributor of UNEP's publications. The new UNEP Internet book shop complements UNEP's existing home page www.unep.org and its publication catalogue Environment in Print. For more information, contact: Tore J. Brevik, UNEP Spokesman and Director of Communications and Public Information Branch, Nairobi, Kenya. Tel.: (254-2) 623292; Fax: 623692; E-mail: tore.brevik@unep.org

SOURCE: UNEP News Release 1999/88



Net Aid, launched by UNDP, will raise global consciousness about poverty via the power of the world wide web.

SOURCE: *Choices*, UNDP, Aug. 99

CHERNOBYL UPDATE

The nuclear accident at Tokaimura, Japan, on September 30, 1999, warns us again that the safety of nuclear energy is highly sensitive to human error. On the last day of September, it appears that, as of this writing, workers at JCO Co.'s uranium-processing facility in Tokaimura, Ibaraki Prefecture, poured too much liquid uranium into a small container as they prepared nuclear fuel. This error caused a nuclear chain reaction that released high doses of radiation into the immediate area of the nuclear facility. The Japanese government said that three of the 49 people directly exposed required hospitalization. (Some reports put the number at 39.) One report indicated that the workers pouring the uranium used their hands because they had not received proper training by the owner of the facility. The government ordered the evacuation of the more than 160 residents closest to the plant who stayed in a community center for two days. Tokaimura is a town of 33,000 residents situated approximately 70 miles northeast of Tokyo.

The IAEA (International Atomic Energy Association) gave this accident a level four rating out of a possible ten, yet deemed this Japan's worst nuclear accident. By contrast, on this scale, Chernobyl was rated seven, and the accident at Three Mile Island, in the US, was rated five. At Tokaimura, 35 pounds of uranium were involved, a small amount relative to the 50-100 tons con-

tained in a reactor.

Like Chernobyl, the workers inside the nuclear facility suffered the greatest exposure to high dosage radiation. Unlike Chernobyl, the quantity of radiation emitted from this accident was far less lethal. Yet, for the area's residents and those living in a wide radius from the Tokaimura plant, how much exposure is safe? The short-term effects are perceivable, but the potential long-term contamination to soil, air and water, and people, will require vigilant monitoring.

After a nuclear accident, the question is usually asked, "Could this accident have been avoided." And the recurring answer usually suggests that as long as humans caused the accident, people can be better trained and can build better nuclear facilities. The important challenge again raised by Japan's latest nuclear accident is to the nuclear industry itself. How viable a source of energy is nuclear fission? Governments' concentration on acquiring nuclear power plants to fuel economies interferes with research and development of alternative energy sources including solar and wind power. Both alternatives have proven to be far safer than a nuclear reactor, but they produce costlier electricity. However, this is likely to change. Nuclear accidents and the fear of chronic devastation may induce more nations like the US and Germany, to seek safer sources of energy.

SOURCES: *New York Times*, Oct. 2, 1999; www.Greenpeace.org; *Daily Yomiuri Online*, Oct. 3, 1999

FOOD FOR THOUGHT

Y6B: The Year of 6 Billion

A global milestone was reached in mid-July when world population crossed the 6 billion mark. It took all of human history until 1804 for the world to reach a population of 1 billion but little more than 150 years to reach 3 billion in 1960. The world's population has doubled in less than 40 years. Put another way by Jim Motavelli, editor of *E*, an environmental magazine, "One-tenth of all the people who have ever lived on the planet are alive today." The 6 billion mark was reached 3 months earlier than predicted. The original date of October 12 has been designated by the United Nations as the day for international commemoration of this population milestone.

Unlike Y2K, people have been working on the population problem for decades, and there has been progress. The Plan of Action created at the International Conference on Population and Development held in Cairo in 1994, and reviewed at Cairo +5 meetings at UN headquarters in June 1999 projects a leveling-off of increases sometime in mid-21st century, when the population is expected to reach 9.8 billion. The United Nations predicts that the population of the world will stabilize at about 11.6 billion some time around the year 2200. But getting to zero population growth will be complicated.

In 1994 delegates at the United Nations International Conference on Population and Development agreed to a 20 year plan of action to address population growth issues. The program of action is based on the notion that women alone can hold back the population tsunami. If you improve the social status, health, education and job opportunities of women in poor countries, population experts argued, these women will be less interested in procreating. While evidence supports this perspective, it ignores the role and responsibilities of men in bringing children into the world and rearing them. This social engineering replaced some controversial and modestly effective population con-

trol programs. In Cairo, population strategy for the first time moved away from controlling the numbers to focusing on general health care, education, and choice for women and girls.

While most of the world's nations support the Cairo program (179 signed on in 1994), it's a tough sell in countries where women are not allowed to go to school or where determining the size of a family is a patriarchal prerogative or where religion is used to keep women in shackles. The World Health Organization estimates that 230 million women worldwide lack access to birth control and that each year 50 million or the 190 million pregnancies end in abortions, many of which are performed under illegal and unsanitary conditions.

At the review of the Cairo conference known as ICPD+5, held at UN headquarters in New York in July 1999, delegates from 170 nations agreed to

strengthen commitment to the 1994 Cairo plan by broadening access by women and young people to birth control, education (including sex education and reproductive health), and information about AIDS.

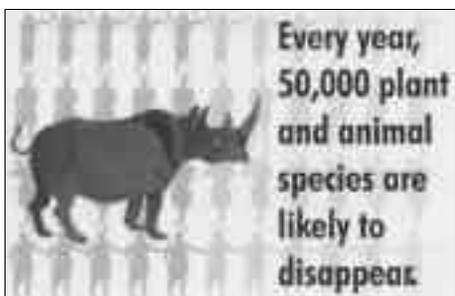
The success of the Cairo program continues to depend on financing which is expected to cost \$17 billion in 2000, rising to \$21.7 billion by 2017. Pledges agreed to in 1994 commit developing countries to pay two-thirds of the total and the industrialized world the rest. Both are well behind on their obligations so far.

The world's population is expanding albeit at a slowed rate despite a "reproductive revolution" that has prompted half of the world's married women to use family planning techniques, compared with an estimated 10 percent only 30 years ago, according to the International Planned Parenthood Federation in



Filtering pollution, a woman in Shanghai wears a mask. Up to 700,000 people die each year from bad air.

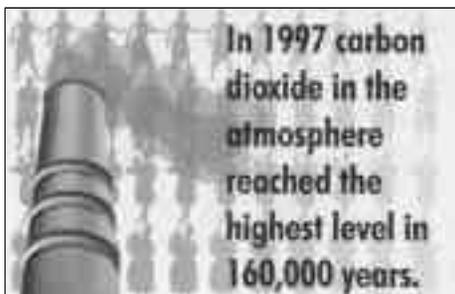
SOURCE: *International Wildlife*, Sept./Oct. 99



London. In 61 of the world's more than 190 countries, women's fertility rates have dropped below the replacement level of 2.1 children per woman.

In the United States, the world's third most populous nation after China and India, 71% of women use some form of family planning. The U.S. fertility rate, or average number of births per woman, has dropped to 1.96. In spite of this accomplishment, the U.S. has the highest fertility rate among wealthy industrialized countries. Because of the "momentum" of population growth—it takes about 70 years for the population to stabilize after a nation reaches a replacement-level fertility rate of 2.1 births per woman—the U.S. is expected to double its population of 270 million in 60 years if the current growth rate continues, according to Peter Kostmeyer, national spokesman for Zero Population Growth.

As a country goes through a "demographic transition" (after mortality rates decrease, but before fertility rates drop), it experiences enormous population growth. Most countries at least double or triple their numbers before finally stabilizing. Demographic transition has been responsible to the greatest increase in population in the shortest period of time the earth has ever seen or probable will ever see again, says Joseph Chamie, director of the United Nations population division. The biggest problems are



encountered in poor countries that can't cope with their current numbers. Five countries today are responsible for more than 50 percent of the world's increase in population: India, China, Indonesia, Pakistan, and Nigeria.

An unprecedented 1 billion teenagers are entering their reproductive years, a trend that will have a considerable impact on population growth. This "youthquake" is considered a major reason for continued population growth. The problem is exacerbated by the fact that 95% of those young people are in the developing world.

Longevity, the increase in the average human life span, is another trend that is impacting population growth. The average life expectancy in poor nations has increased from less than 40 years in 1950 to 61 years today. According to the Population Reference Bureau in Washington, the average life span in wealthy nations has risen from 66 to 75 years. By 2050 there will be more than 1 billion people 60 and older, the bureau projects. And for the first time, the number of people 65 and older will begin to approach the number of children.

"It's well within the world's reach to stabilize the population in the foreseeable future. The issue is to not postpone it," says Chamie. "If you wait 20 more years, the problem will be extremely more difficult to deal with." While an Armageddon-like asteroid probably won't cause the earth's population to stabilize, neither will an ultra-wide-spread virus like Ebola or AIDS, Chamie contends. Instead, stabilization will occur because people make a conscious decision to have fewer children. The same forces that caused lower fertility rates in industrialized nations—urbanization, increased education, lower mortality, the changing status of women in society, and smaller living quarters—are now present worldwide.

SOURCES:

"Getting Mighty Crowded, But What Are Women to do?" *Buffalo News*, 7/3/99; "U.N. Meeting Splits Sharply on Limiting Population", *New York Times*, 6/30/99; "World Population Reaches 6 Billion", *Los Angeles Times*, 7/19/99; "Population Growth is the Pivotal Issue in Economic Development", Georgie Ann Geyer, Copyright 1999, *The Salt Lake Tribune*, 6/2/99; "Six Billion Served", *American Demographics*, June 1999, [Intertec Publishing Corporation]; "Population-Control Draft Forged After Tough Debate" Betsy Pisik, *The Washington Times*, 7/6/99; *International Wildlife*, Sept./Oct. 99

Global Progress in Human Development, 1990-97

Health

In 1997, 84 countries enjoyed a life expectancy at birth of more than 70 years, up from 55 countries in 1990. The number of developing countries in the group has more than doubled, from 22 to 49. Between 1990 and 1997 the share of the population with access to safe water nearly doubled, from 40% to 72%.

Education

Between 1990 and 1997 the adult literacy rate rose from 64% to 76%. During 1990-97 the gross primary and secondary enrollment ration increased from 74% to 81%.

Food & Nutrition

Despite rapid population growth, food production per capita increased by nearly 25% during 1990-97. The per capita daily supply of calories rose from less than 2,500 to 2,750, and that of protein from 71 grams to 76.

Income & Poverty

During 1990-97 real per capita GDP increased at an average annual rate of more than 1%. Real per capita consumption increased at an average annual rate of 2.4% during the same period.

Women

During 1990-97 the net secondary enrollment ratio for girls increased from 36% to 61%. Between 1990 and 1997 women's economic activity rate rose from 34% to nearly 40%.

Children

Between 1990 and 1997 the infant mortality rate was reduced from 76 per 1,000 live births to 58. The proportion of one-year-olds immunized increased from 70% to 89% during 1990-97.

Environment

Between 1990 and 1997 the share of heavily polluting traditional fuels in the energy used was reduced by more than two-fifths.

SOURCE: *Human Development Report 1999*



DID YOU KNOW?

■ Birth control pills were approved for use in Japan Wednesday, ending decades of bureaucratic delay over questions of morals and culture, the spread of AIDS and potential lost profits to physicians in one of the world's busiest abortion markets. Japanese women's rights activists have demanded official certification of the pill for years, asserting that women should have more options and control over their reproductive health. The same ministry that took nine years to sanction use of the pill in its current low-dose form recently took just six months to approve the anti-impotence drug Viagra.

SOURCE: The Washington Post, 6/3/99

■ Automobiles annually discharge 17 grams of highly toxic dioxin in Japan—a rate 250 times higher than that previously estimated by the Japanese government, according to a recent survey conducted by the National Institute for Environmental Studies. Direct exposure to that amount of dioxin would be enough to kill 14 million guinea pigs, scientists said. Ten years ago, a group of researchers at Kyoto University's Engineering Department estimated the total amount of dioxin discharged from automobiles annually to be 0.07 grams. The government has been employing this figure in calculations of dioxin emissions from traffic. European countries' estimates, however, are between 100 and 1,000 times higher than the Japanese government's. Germany, for example, estimates annual dioxin emissions from traffic at between eight and 145 grams, and regards automobiles and incinerators as the major sources of dioxin pollution. This is the first time that

the amount of dioxin contained in automobile exhaust has been officially measured in Japan. The government has yet to place limits on the amount of dioxin in automobile exhaust. Although the dioxin from automobiles accounts for less than 1 percent of the total amount of dioxin discharged from various sources across the nation, the survey has proved that automobiles are partly responsible for spreading dioxin pollution. Between 2,000 and 3,000 grams of dioxin is estimated to be discharged annually in Japan. A group of researchers, including Yuuichi Miyahara, at the Environment Agency's institute in Tsukuba, Ibaraki Prefecture, conducted the survey in 1997 and 1998. The group will publish results from the survey shortly in *Chemosphere*, a British magazine on environmental chemistry.

SOURCE: The Yomiuri Shimbun, 1999 Study

■ The United Nations Development Programme (UNDP), the Asia Pacific Development Information Programme (APDIP) and Cisco Systems, Inc. have agreed to bring Internet education to students in developing countries in the Asia Pacific region. APDIP and Cisco Systems will jointly fund and set up ten Cisco Networking Academies in nine developing countries. The specific project stems from NetAid, a global attempt to utilize the Internet to reduce extreme poverty in the world.

SOURCE: BUSINESS WIRE, August 26, 1999

■ Dr. Stephen Mumford's Center for Research on Population and Security promotes contraception and population control focused on a female sterilization method using quinacrine hydrochloride, a chemical the Food and Drug Administration and the World Health Organization say has not been adequately tested. Researchers at Family Health International, a Research Triangle Park firm founded to find contraception methods for Third World cultures, helped develop quinacrine sterilizations in the 1970s and 1980s. The firm says quinacrine holds great promise but shouldn't be used until there's more testing. Mumford argues that quinacrine is very inexpensive (each sterilization costs less than a dollar with only about 15 cents of that cost is for the chemical itself), and has been used on humans in Third World countries for six

decades. Mumford says quinacrine sterilizations were developed in Chile and researched extensively in Vietnam. Local health care workers administered it thousands of times in India, Bangladesh and Pakistan. FHI has since 1994 been conducting follow-up checks with a random sample of 1,800 out of nearly 32,000 Vietnamese women sterilized with quinacrine. The results haven't been published, but an FHI spokesman says researchers have found no obvious health problems. The International Women's Health Coalition in New York believes that mankind would be better served by a successor to the condom—a barrier to pregnancy and sexually transmitted diseases that women can control.

SOURCE: Associated Press Online, May 31, 1999

■ As a result of the 27 year ban on DDT in the United States, the peregrine falcon, once close to extinction, came off the endangered species list in August. Other once endangered birds are flourishing including brown pelicans in Florida and Long Island ospreys. However, due to the spread of malaria, public health professionals are urging that the governments not ban the use of this highly toxic pesticide, one of the 12 most toxic persistent organic pollutants (POPs). Health experts argue that DDT is necessary to stop the spread of malaria, a disease that kills mainly children in undeveloped countries. The health workers urge that spraying should be allowed in small quantities on the interior walls of homes, where DDT can repel the disease-carrying mosquitoes. DDT is an effective and inexpensive protection against the public health threat of malaria. The biggest users of DDT for malaria control are China and India. Mexico has pledged to stop spraying DDT by 2007.

SOURCE: New York Times, August 29, 1999

■ The U.N. Food Safety Agency representing 101 nations and known as the Codex Alimentarius Commission has ruled unanimously in favor of the 1993 European moratorium on Monsanto's milk additive rBGH. The Codex Commission ruling has also forced the U.S. to give up its threats to challenge the European Commission's moratorium before the World Trade Organization later this year. The US Food and Drug

Administration approved the sale of unlabeled rBGH milk in February 1994, strongly supported by reports from the Food and Agriculture/World Health Organization's (FAO/WHO) Joint Expert Committees on Food Additives (JECFA), including its latest September 1998 report. This report absolved rBGH from any adverse veterinary and public health effects. However, the Canadian Veterinary Medical Association and the Canadian Royal College of Physicians and Surgeons, respectively disapproved of the growth hormone, basing its conclusions on increased incidence of mastitis, lameness and reproductive problems, all associated with rBGH. The European Commission (EU) studied the scientific literature on the veterinary and human health effects of rBGH and augmented the Canadian findings. The EU concluded that rBGH posed major risks of cancer, particularly of the breast and prostate. In light of this research, the US has not challenged the Codex ruling.

SOURCE: PRNewswire, Samuel S. Epstein, M.D., Professor of Environmental Medicine at the University of Illinois School of Public Health, Chicago, www.preventcancer.com

■ Opposition to Monsanto's genetically modified seeds has intensified in the year. Recently Japan, Asia's largest importer of U.S. foods, passed a law requiring the labeling of genetically modified foods. The largest and third-largest Japanese beer makers, Kirin Brewery and Sapporo Breweries, Ltd. announced that they will stop using genetically modified corn by 2001. Grupo Maseca, Mexico's leading producer of corn flour recently announced it will no longer purchase any genetically modified corn for corn flour. Corn flour is made into tortillas, a Mexican staple. Mexico buys \$500 million of U.S. corn each year, and about 1/3 of this year's U.S. corn crop is being grown from genetically modified seeds. Two leading American baby food manufacturers, Gerber and Heinz, announced in July that they would not allow genetically modified corn or soybeans in any of their baby foods. Iams, the pet food producer, announced that it would not purchase any of the seven varieties of genetically modified corn that have not been approved by the European Union.

SOURCE: RACHEL'S ENVIRONMENT & HEALTH WEEKLY #666, September 2, 1999.

■ US Vice President Gore announced the research findings of a new study showing wide-spread effects of information technology on the economy. The report concluded that information technology (IT) is fundamentally changing the way Americans conduct their lives. Gore noted, "This report finds that since 1995, even though information technology industries make up less than one percent of all retailers, they account for fully one-third of our nation's economic growth." It is estimated that by 2006, almost half of American workers will be employed by industries that are either IT producers or intensive users of IT. IT workers earn 78 percent more than other workers, and the pay gap is growing. Gore also announced that the United States will co-operate with 10 developing countries for the "Internet for Economic Development", an initiative designed to increase Internet access and use in developing countries. Those countries are: Guatemala, Jamaica, Bulgaria, Egypt, Morocco, Ghana, Guinea, Uganda, South Africa and Mozambique. The World Bank intends to be an active partner in the Internet for Economic Development initiative, supporting pilot projects in the selected countries.

SOURCE: Office of the Vice President, Press Release, Tuesday, June 21, 1999

■ A new study on the epidemic of frog deformities that plagues North American frogs suggests that toxins which inhibit the production of a thyroid hormone may contribute to if not directly cause the deformities. The deformities include bent spines, malformed jaws, fewer-than-normal legs, and too many or too few eyes. Scientists who have been investigating the frog deformities, have associated the epidemic with lake water and now may have traced the culprit to pollutants in the water that disrupt the frogs' endocrine systems. Toxicologist Douglas J. Fort of the Stover Group, a firm of toxicology consultants in Stillwater, Okla., injected a thyroid hormone into deformed frogs in an experiment and found that with the added thyroid hormone the frogs either developed normally or the hormone remedied some of the deformities even though the frogs continue to live in polluted lakes.

SOURCE: Science News, 2 October 1999, Vol 156, No 14

Message from Secretary General of the United Nations

UN Secretary General Kofi Annan recognized that rising poverty and population pressures drive people to live in high risk areas prone to "natural" disasters. One of the simplest and most profound solutions to break the cycle of poverty is to provide women with information and choices regarding their reproductive health. In country after country where family planning methods are available and opportunities for women exist, women choose to have fewer children. They provide for their families by limiting the number of mouths to feed, bodies to clothe and children to care for. Support for family planning and reproductive health care in developing countries is the critical link in reducing human suffering and mitigating the effects of natural disasters.

SOURCE: September 17, 1999, International Herald Tribune: Breaking the Cycle of Poverty.

We, the people of the Earth, are one large family. The new epoch offers new challenges and new global problems, such as environmental catastrophes, exhaustion of resources, bloody conflicts and poverty. Every time I see children begging in the street, my heart is broken—it is our challenge and our shame that we are still unable to help those who are vulnerable—children in the first place. Whatever are the problems or perspectives for the future—the human dimension is what should be applied as the measure of all events, towards the implications of every political decision to be made. That is why the idea of human development promoted by UNDP is so important for us.

Eduard Shevardnadze, President, Georgia

Voices

■ World Information Transfer's Ninth International Conference on Health and Environment: Global Partners for Global Solutions on the theme of "Solutions for the Next Millennium" will take place on April 27 and 28, 2000, United Nations Headquarters, New York. Further information will be available in the next issues of the World Ecology Report as well as on WIT's web site: www.world-info.org

■ A new *Handbook of Pediatric Environmental Health* will be released by the American Academy of Pediatrics on October 10, 1999, in Washington D.C. at the Annual Meeting of the American Academy of Pediatrics. The Handbook is edited by Dr. Ruth Etzel, Director, Dept. of Epidemiology, US Dept. of Agriculture.

■ The Humanity Development Library CD-ROM is a practical digital library to "help solve poverty, to increase human potential and to provide education to all." The complete low-cost CD-ROM library consists of 3,000 essential books and solutions from UN resources in the public domain. The goal of the non-for-profit Humanity Libraries Project is to provide persons or groups in the developing world, owning a PC/CD-ROM set, access to a complete basic library at very low cost. This CD-ROM set contains most multidisciplinary solutions, know-how and ideas needed to help solve problems from building water pumps to ideas on eradicating poverty. The individual, group or agency with the software is expected to become a local focus point for human development information. The initial language is English; soon other languages will follow including Spanish, French, and local languages. The Humanity Development Library is created by the NGO Global Help Projects in co-operation with many partners, including World Information Transfer. The Humanity Libraries Project is like a low cost vaccination against lack of knowledge, offering a model for an information resource developed at low cost and made available

to all for free or very low cost.

For additional information contact the Project's developer, Dr. Michel Loots, Humanity Libraries Project, Global Help Projects vzw—HumanityCD bvba
Oosterveldlaan 196 B-2610
Antwerpen—Belgium
Tel 32-3-448.05.54; Fax 32-3-449.75.74
E-mail: humanity@globalprojects.org
www.oneworld.org/globalprojects

■ The non-profit organization, Action Without Borders, recently launched an e-mail newsletter called *Ideas in Action*, that every month makes available news about useful resources. The recent issue includes a selection of internet tools available from websites. www.timedance.com is a service that allows easy scheduling of group meetings or conference calls. For setting up lists or e-mail discussions visit www.listbot.com and www.egroups.com. For further information visit Action Without Borders web site at www.idealists.org/newsletter.html

■ The World Health Organization will hold a conference entitled "The WHO International Conference on Tobacco and Health—Making a Difference to Tobacco and Health: Avoiding the Tobacco Epidemic in Women and Youth," in Kobe, Japan, from November 14 to 18, 1999. The four-day meeting, the first for WHO on this topic, will focus in particular on Asia and the Pacific region. Among the highlights of the programme is a panel discussion on, "The good and bad news about women and tobacco" to be chaired by Dr. Brundtland and includes US Secretary of Health, Donna Shalala. WHO estimates that there are currently 4 million deaths a year caused by tobacco from more than a billion smokers in the world, the largest number in Asia.

■ UNEP International Photographic Competitions invites entrants to submit photographs that reflect their view of the world at the dawn of the millennium. The photographers should also attempt to convey their vision of the earth. Entry forms can be obtained from the UNEP Photographic Competition website at: www.unep-photo.com/
Competition closes on April 30, 2000.

World Information Transfer 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 pressing 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.



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.

World Information Transfer

A Non-Profit, Non-Governmental Organization in Consultative Status with the United Nations, Promoting Health and Environment Literacy.

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World Information Transfer, Inc.
 (ISSN #1080-3092)
444 Park Avenue South, Suite 1202
New York, NY 10016
Telephone: (212) 686-1996
Fax: (212) 686-2172
E-Mail: wit@igc.apc.org

Dr. Christine K. Durbak
Founder & Editor-in-Chief

Frances Vieta
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Consultant

Alan Geoghegan
Video Production

Carolyn T. Comitta

WIT Regional Director - North America
 18 West Chestnut Street
 West Chester, PA 19380
 Tel: (610) 696-3896 Fax: (610) 430-3804

Taras Boychuk/Roma Hawryliuk

WIT Regional Directors - Eastern Europe
 K. Levyckoho 11a, # 15
 Lviv, Ukraine
 Tel/Fax: (380) 322 76-40-39
 E-Mail: taras@wit.lviv.ua

Dr. Gilda Alarcon Gaslinovich

WIT Regional Director - Latin America
 21 - 63 91st Rd.
 Queens Village, NY 11427
 Tel: 718-468-1292

**Christopher Geoghegan
 Leon Hauser**

WIT Regional Directors - Western Europe
 EPO Patentlaan 2
 Rijswijk 2288EE Holland
 Tel: 31-70-340-4295 Fax: 340-3016

Dr. Hamid Taravaty

WIT Regional Director - Middle Asia
 No. 19, Pastour 16
 Mashad, Iran
 Tel: (98) 51 641-942 Fax: (98) 51 711-896

Farouk Mawlawi

WIT Regional Director - Middle East
 Bir Hassan
 United Nations Street
 Al-Salam Building
 Beirut, Lebanon
 Tel: (961) 1-853657
 E-Mail: fmawlawi@intracom.net.lb

Gerry Lynch

WIT Regional Director - Oceania
 3/55 William Street, Suite 33
 Double Bay, NSW 2028, Australia
 Tel: 61 (02) 328-6343 Fax: 61 (02) 482-7734

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<http://www.worldinfo.org>

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“Environmental Challenges to Health Through Key Stages of Life”

Introductory Statement by Dr. Christine K. Durbak

Continuation from the Summer issue of the World Ecology Report.

5. Children also spend more time outdoors than do most adults, often engaged in vigorous play. Because children breathe more air per pound of body weight than adults and because their respiratory systems are still developing, they are prone to greater exposure to and potential adverse effects from air particulates, ozone and other chemicals that pollute outdoor air.

6. Finally a child's diet differs in important ways from that of an adult. Because, for example, the average infant's daily consumption of six ounces of formula or breast milk per kilogram of body weight is equivalent to an adult male drinking 50 eight-ounce glasses of milk a day. Likewise, proportionate to its body weight, the average one-year-old eats two to seven times more grapes, bananas, pears, carrots and broccoli than an adult.

Because children are exposed to toxicants at an earlier age than adults, children have more time to develop environmentally-triggered diseases with long latency periods, such as cancer and, possibly, ...Parkinson's disease. Children face myriad environmental hazards: radiation, solvents, asbestos, mercury, arsenic, sulfur dioxide and ozone, to name but a few. They fall into categories such as neurotoxins, endocrine disrupters, carcinogens, and respiratory irritants and inflammants. For example:

Exposure to lead has been associated with an array of neuro-developmental effects, including attention deficit, decreased IQ

scores, hyperactivity and juvenile delinquency. Research has also shown an association between slightly elevated blood lead levels in children at the age of 24 months and lower general cognitive function at 5 years of age.

Air pollution affects children more than adults because of their narrow airways, more rapid rate of respiration, and the fact that they inhale more pollutants per pound of body weight. Common indoor air pollutants include: carbon monoxide, radon, environmental tobacco smoke, asbestos, formaldehyde and mercury. Common outdoor air pollutants include ozone and particulate matter.

Health effects associated with both indoor and outdoor air pollution include increased frequency of chronic cough and ear infections, and decreases in lung function. Researchers are seeking to identify indoor and outdoor air pollutants that serve to exacerbate asthma. Among persons under the age of 20, the prevalence of asthma increased by 42% between 1980 and 1987.

Children are often exposed to toxicants through the agricultural and home use of pesticides or the ingestion of pesticide residues on food or in water. Pesticides used today generally fit into five main categories: insecticides, herbicides, fungicides, nematocides and rodenticides. Increased awareness of acute pesticide poisoning has led to an apparent decrease in acute episodes of toxicity, and public health concern has thus shifted to evaluating the effects of low level chronic pesticide exposures. Again, children may be more vulnerable than adults to experiencing latent or delayed effects

over the long course of their lifetime. Researchers have become concerned about the potential associations between chronic pesticide exposure and chemical carcinogenesis, environmental estrogen disruption and developmental neurotoxicity. A 1993 National Academy of Sciences report stated that some pesticides may interfere with physiological processes of the child, including the immune, respiratory and neurological systems.

Over the next two days you will hear from the world's leading experts on the relationship between health and the environment. Our distinguished speakers will address the environmental challenges to our health in the coming millennium, and on the impact of a degrading environment on the health of children, the elderly and the chronologically challenged.

We will focus on what is degrading our environment that causes health problems...everything from greenhouse gases to the 520 billion pounds of synthetic chemicals produced every year and to man's particular ability to contaminate the environment either through the mismanagement of technology, as in the case of the Chernobyl tragedy, or through the dysfunction of war as in the case of Kuwait/Iraq or more recently the insanity in Kosovo.

But while there is a temptation to merely chronicle the manifestations of a degrading environment, we will focus on how inhabitants of our global web can, and have worked together to find solutions for a cleaner, better and healthier world. Thank you for your attention.

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“Never doubt that a small group of thoughtful committed citizens can change the world. Indeed it's the only thing that ever has.”

Margaret Mead
