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ARTICLE HIGHLIGHTS

Air pollution articles in this issue begin with determining the links of indoor air pollution to asthma in inner-city children. In a study in the Czech Republic, researchers measured the relationship between outdoor air pollution and lower respiratory infections. Also, the EPA is considering tightening up pollution laws for refineries. A meta-analysis of thirty-eight studies aimed to uncover the true association between second hand smoke and asthma. In Austria, a study was performed to find the impact of tobacco smoke exposure and wheezing diseases. Also, a review of the literature found that maternal smoking causes low birth weight but only has minor effects on cognitive functions in children. In the chemical section, researchers found that arsenic causes gene expression that may lead to cancer, and a large survey in Canada plans to track chemical pollutants in 2000 women over their pregnancies. The Canadian province of Ottowa is investigating a chemical found in baby bottles, while Iraq has plans for the restoration of wetlands for many Marsh Arabs. Researchers search for sources of lead exposure in children, and a California based group is taking safety into its own hands by forcing companies to obey the law. French president Sarkozy unveiled plans for a "green revolution," including a freeze on GMOs, and China revoked the licenses of several pesticide manufactures. A study among Native Americans found a link between PCBs and diabetes. Mercury has been an increasingly important topic, with a large conference in Bangkok and a smaller one in Mongolia devoted to it.

In water and sanitation, UN Secretary General Ban Ki-Moon prioritized sanitation as a major agenda at the launch of the International Year of Sanitation. Experts worry about the sanitation conditions in Bangladesh in the wake of the cyclone, and more environmental workers are requested in Nigeria. Asian leaders hope to make progress in the issue of climate change by
signing a pact in Singapore. An African fever outbreak in Europe is linked to climate change and globalization, and Oxfam reports that weather-related disasters have quadrupled in the past 20 years. The field of epigenetics can help us relate genes, environment, and disease by seeing how environmental factors alter gene expression. The advances in nanotechnology have scientists worried about its health impacts, but exposure to electromagnetic fields shows no link to leukaemia according to another study. Secretary Ban Ki-Moon starts a climate change-focused tour of South America, where a Peruvian town is named in the top ten most polluted places in the world for the second time. China makes environmental progress by creating tougher fines for polluters, and planning a climate change meeting for 2008. Japan pledges $1.8 billion for green projects in Asia, and the Delhi government plans new sewage systems for unconnected colonies. In Africa, the Zambian Tourism, Environment and Natural Resources Minister claims climate change will slow the implementation of development strategies, and a report in Uganda states that climate change increases early marriages.

Summaries of articles grouped under the following themes appear below, with links to their full texts:

(1) AIR POLLUTION: (a) Indoor air pollution (b) Outdoor air pollution (c) Environmental Tobacco Smoke/Smoking
(2) CHEMICALS: (a) General, (b) Lead, (c) Pesticides, (d) Mercury
(3) WATER AND SANITATION
(4) GLOBAL CHANGE
(5) REPRODUCTIVE HEALTH
(6) MISCELLANEOUS (a) General (b) Americas (c) Asia (d) Africa (e) Europe

Healthy Environments for Children Alliance (HECA) is a world-wide alliance to reduce environmental risks to children’s health that arise from the settings where they live, learn, play, and sometimes work, by providing knowledge, increasing political will, mobilizing resources, and catalysing intense and urgent action.

HECANET is an international mailing list dedicated to promoting healthy environments for children. The list provides updates on the activities of the Healthy Environments for Children Alliance (HECA) and its members, as well as an overview of media coverage of children’s environmental health issues and relevant meetings, research findings and information and advocacy resources.

* Past Issues
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EVENTS AND ACTIVITIES

(1) HECA Developments
For more information on HECA’s latest developments, please visit the Healthy Environments for Children Alliance website: http://www.who.int/heca/en/
International Network to Promote Household Water Treatment and Safe Storage: http://www.who.int/household_water/en/

(2) Children's Environmental Health Indicators (CEHI) Newsletter

The CEHI Newsletter has been set up to engage partners with the Global Initiative on Children's Environmental Health Indicators (CEHI). The next issue will be issued in December 2007. It aims to provide up-to-date information on relevant global, regional and national indicator activities. To sign up to the newsletter, to contribute information or to find out more, please visit the website WHO | Children's environmental health indicators newsletter (CEHI) or contact: cehindicators@who.int

(3) UNEP: Ask UNEP

UNEP Online brings you the new interactive feature: Ask UNEP. Every day a new UNEP expert will be available to answer your question. The expert - a - day exercise aims to bring the environment into public consciousness and to create a healthy discourse on the major issues that affect the health of our planet and the sustainability of natural resources. The feature also lends a human face to the work of UNEP by allowing in-house experts to discuss the work undertaken by the organization - taking on board suggestions and perspectives of international constituents and stakeholders. If you want to interact with the experts and join the global discussion on the environment, access the current session and submit your question(s) to the expert.

Maaike Jansen served as an expert for a discussion on Children's Environmental Health that took place on the 5th and 6th of October. To read the questions and answers, visit: http://www.unep.org/experts/Default.asp?Page=home&ExpertID=202&SessionID=217

(4) UNEP Report: The fourth Global Environment Outlook

The United Nations Environment Programme says that major threats to the planet such as climate change, the rate of extinction of species, and the challenge of feeding a growing population are among the many that remain unresolved, and all of them put humanity at risk. The warning comes in UNEP’s Global Environment Outlook: environment for development (GEO-4) report published 20 years after the World Commission on Environment and Development (the Brundtland Commission) produced its seminal report, Our Common Future. GEO-4, the latest in UNEP’s series of flagship reports, assesses the current state of the global atmosphere, land, water and biodiversity, describes the changes since 1987, and identifies priorities for action. GEO-4 is the most comprehensive UN report on the environment, prepared by about 390 experts and reviewed by more than 1 000 others across the world.

Information: Nick Nuttall, Spokesperson UNEP, Tel: +254 733 632755, E-mail: nick.nuttall@unep.org
Copies of the GEO-4 report are available for download on http://www.unep.org/geo/geo4/
One of Africa's largest waste dumps, the Dandora Municipal Dumping Site in Nairobi, is a serious threat to children living nearby and the city's environment generally, a new study shows. The study, commissioned by the UN Environment Programme (UNEP), examined 328 children aged 2-18 living around the Dandora waste dump and its health implications. The study also compared soil samples from the site with another location just outside of Nairobi. Half of the children tested had concentrations of lead in their blood exceeding internationally accepted levels, while 42 percent of soil samples recorded lead levels almost 10 times higher than what is considered unpolluted soil (over 400 parts per million (ppm) compared to 50 ppm). Children have been exposed to pollutants such as heavy metals and toxic substances through soil, water and air (smoke from waste burning) with implications for respiratory, gastrointestinal and dermatological or skin diseases. Almost half of the children tested were suffering from respiratory diseases, including chronic bronchitis and asthma.

The summary of the report Environmental Pollution and Impacts on Public Health; Implications of the Dandora Municipal Dumping Site in Nairobi, Kenya can be found on UNEP's website at www.unep.org/urban_environment/

Information: Nick Nuttall, UNEP Spokesperson, at tel: +254 20 762 3084, e-mail: nick.nuttall@unep.org or Anne-France White, Associate Media Officer, at tel: +254 20 762 3088, e-mail: anne-france.white@unep.org

The challenges and opportunities facing the world as a result of climate change have been distilled into a concise and sobering guide by the IPCC. The guide, launched after five days of discussions in the Spanish city of Valencia, will be essential reading for delegates attending the upcoming UN Climate Convention meeting in Bali, Indonesia. The guide, officially known as the Summary for Policy Makers, underlines the urgency to act to reduce greenhouse gas emissions alongside the economic costs of a transition to a low-carbon society. It also argues strongly in favour of stepping up support and action on adaptation.

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With governments preparing to gather in Bali, Indonesia to discuss the future of the Kyoto Protocol, the United Nations Development Programme’s Human Development Report has warned that the world should focus on the development impact of climate change that could bring unprecedented reversals in poverty reduction, nutrition, health and education. The report, 'Fighting climate change: Human solidarity in a divided world,' provides a stark account of the
threat posed by global warming. It argues that the world is drifting towards a “tipping point” that could lock the world’s poorest countries and their poorest citizens in a downward spiral, leaving hundreds of millions facing malnutrition, water scarcity, ecological threats, and a loss of livelihoods.


The Board of Directors for the Children's Environmental Health Network (CEHN) organized the Second Annual Children's Environmental Health Advocate Reception, on 10 October in Washington, DC, to honor leading advocates for children's environmental health and to celebrate the great work of CEHN. CEHN is a national multi-disciplinary organization, whose mission is to protect the fetus and the child from environmental health hazards and to promote a healthy environment. For more than 15 years, CEHN has worked to protect children from harmful substances in their environments, whether it is pesticide residues on children's food, air pollutants that can trigger asthma attacks, or plastic additives that can mimic or distort a child's own hormones. They accomplish this through training programs targeted at groups ranging from health care providers to religious leaders; through supporting and disseminating vital research and shaping the research agenda; and by serving as the voice of children's environmental health in Washington D.C. The awards are meant to raise awareness of effects of environmental hazards to children's health, to acknowledge effective children's environmental health advocates, and to raise support for CEHN important programs. For more information, send an email to cehn@cehn.org

(9) 14th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region with focus on Environment and Health. Seville, Spain. 10 - 14 October 2007

The "14th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region with focus on Environment and Health" took place in Seville, Spain on 10 to 14 October 2007. For more information, please go to http://www.mesaep.net/symp2007/first.html

(10) VIII National Conference of the Polish Society of Environmental Medicine. Wroclaw, Poland. 19-21 October 2007

The VIII National Conference of the Polish Society of Environmental Medicine took place in Wroclaw, Poland on 19-21 October 2007. For more information, please contact: konferencja2007@imp.sosnowiec.pl


The Workshop on Children's Environmental Health was a one-day event hosted by the Peking University and was organized by the International Society of Doctors for the Environment (ISDE), with the University of Albany (New York, USA) and the WHO Collaborating Centre on CEH (Perth, Australia). Over 70 people participated. The WHO Training Package for the Health
Sector was used for presentation that addressed children's vulnerability, air, water and food contaminants, fetal-environmental origins of disease. For information, visit the [website](#).

(12) 12th PBC International Conference. Beijing, China. 26-29 October 2007


The conference entitled "The Effect of Environmental Pollutants on Foetal and Child Development: A Global Issue" was held in Hangzhou, China on 26-27 October, 2007. For more information, please go to the conference website: [www.chinamed.com.cn/pgpr2007](http://www.chinamed.com.cn/pgpr2007) or contact the conference co-chairs: Alvin Zipursky and Xiaoming Shen


The Seminar "Reproductive Health and the Environment" was held on 12 November 2007 at the Hospital Pereira Rossel, Montevideo, Uruguay. Over 60 participants from different backgrounds (doctors, nurses, reproductive biologists, chemists, among others) attended the seminar and subjects addressed included: reproductive health and occupational environment, fetal/environmental origins of disease, reproductive health and chemicals, endocrine disruptors, intelligence robbers, preconceptional environmental history. It was organized by PAHO/WHO, the Ministry of Health of Uruguay, the University of Medicine, Uruguay, Toxicology Department (CIAT). Representatives from the Ministry of Health of Argentina also attended the event. For more information, please contact ysilva@msp.gub.uy or begonzalez@msp.gub.uy


This first meeting of the Ad Hoc Open-ended Working Group (OEWG) to Review and Assess Measures to Address the Global Issue of Mercury had over 250 participants. Experts are becoming increasingly concerned that increased burning of coal-naturally contaminated with mercury-is leading to releases to the air in some parts of the world from where it can spread around the globe. The soaring gold price may also be increasing mercury pollution locally and world-wide. The poisonous heavy metal is used to extract gold from ore in many artisanal mining operations which involve millions of workers and their families. Mercury is linked with a wide range of health effects including irreversible damage to the human nervous system including the brain and scientists have concluded there is no safe limit when it comes to mercury exposure. Every person alive today—some 6.5 billion people—is thought to have at least trace levels of the heavy metal in their tissues. Governments and experts met in Bangkok under the
auspices of the UNEP's Chemicals Branch to discuss how best to reduce environmental sources of mercury with a range of options on the table from voluntary measures and initiatives up to legally binding treaties. Their report will be presented to environment ministers meeting in February in Monaco attending UNEP's Governing Council/Global Ministerial Environment Forum. UNEP urged governments, working with industry and civil society, to begin setting "clear and ambitious targets" to get global mercury levels down and to set the stage for mercury-free products and processes world-wide.

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Or, Anne-France White, Associate Information Officer, at tel: +254 20 762 3088, e-mail: anne-france.white@unep.org

(16) 4th Asian Regional Conference on Safe Communities. Bangkok, Thailand. 23 November 2007

The 4th Asian Regional Conference on Safe Communities took place in Bangkok on 23 November. It was convened by a large number of organizations, organized by Dr. J. Chinnapa from the Child Safety Promotion and Injury Prevention Research Centre (CSIP) and the Ramathibodi Hospital, Mahidol University. It took place at the Royal Thai Navy Convention Hall. The conference topics included child safety, drowning prevention, environmental hazard and mass casualty, product safety, road safety, and safe communities, homes and schools. WHO gave a presentation on "Safe Environments for Children." For more information, visit the conference website.


The Sixth Princess Chulabhorn International Science Congress - “The Interface of Chemistry and Biology in the ‘Omics’ Era” was held in Bangkok, Thailand on 25-29 November 2007. With a participation of about 900 professionals from around 40 countries and organizations, the conference provided an excellent opportunity for establishing working contacts and


The public is becoming increasingly interested in the issue of how the environment affects children’s health, and increased media attention for environmental health concerns has been raising questions among parents and others about how best to protect children from contaminants. Health professionals are the people Canadians trust the most for advice on children’s health, and they are well situated to contribute to increased public awareness of preventative strategies and the promotion of best practices within the health profession.

The Canadian federal government recognizes that health professionals have important roles to play in preventing, diagnosing and treating environmentally linked illnesses. Following discussions with Canadian health professional associations, Aboriginal organizations, academic
institutions, provincial/territorial and municipal governments and, of course, health professionals themselves, there was a clear need expressed to discuss some key issues related to the role of health professionals in children’s health and the environment. To this end, and in collaboration with these key stakeholders, a workshop was designed by Health Canada with the following purposes in mind: a forum through which to identify and discuss activities under way in Canada and internationally by and for health professionals in relation to the issue of children’s health and the environment, including education and training opportunities, models for service delivery, and tools for prevention, assessment and referral; and an opportunity for regulated health professionals, policy makers, aboriginal organizations and other players to discuss the current contribution of health professionals in children’s health and the environment, and how this role could be enhanced in the future. WHO participated with a session on the international experience of training health care providers on children’s environmental health.

The first day of this three-day workshop was a day of training in children’s health and the environment issues facilitated by the Canadian Institute of Child Health and based on World Health Organization Training Package for the Health Sector on Children's Environmental Health. For more information, please contact jessi_mahon@hc-sc.gc.ca


Education experts, scientists and environmental specialists met in Ahmedabad (India) from 26 to 28 November to examine the key role of education in achieving sustainable development. Entitled "Environmental Education towards a Sustainable Future - Partners for the Decade of Education for Sustainable Development (DESD)" the conference was sponsored by UNESCO and UNEP (United Nations Environment Program), and organized by the Government of India.

The participants examined the development of environmental education since the first international conference on the subject in Tbilisi 20 years ago. The conference will be a platform for sharing practices and ideas on initiative in environmental education throughout the world. This conference is the fourth in a series of international conferences in support of environmental education. The first was held in Tbilisi, Georgia (October 1977), followed by Moscow, Russian Federation (August 1987) and Thessaloniki, Greece (December 1997).

As a result of the conference, the Ahmedabad Declaration 2007: A Call to Action was created. For more information visit: http://www.tbilisiplus30.org/


The workshop took place at the Chulabhorn Research Institute and was chaired by Drs. M Ruchirawat and and P. Landrigan. The theme was Occupational and Environmental Health in the Asia-Pacific Region. The issues addressed were: Children's health and the environment, arsenic and children's health, air pollution, gasoline, fuel additives, pesticides, food additives and health, and occupational exposures. For more information, visit the website.
(21) **No Pesticides Day. 3 December 2007**

The international Pesticide Action Network launched December 3 as the Global "No Pesticides Use Day" in 1998, to commemorate the world’s worst chemical disaster in 1984. That day in Bhopal (India) a pesticide factory exploded, releasing a toxic gas that caused more than 500,000 injured and 20,000 deaths in the years since. The global PAN has highlighted the tragedy of Bhopal as an example of a tragic instance of chemical pesticide contamination for which its victims continue to suffer to this day. Bhopal has been called the worst commercial industrial disaster in history—but not the last. Around the world the ongoing manufacture, distribution, and use of chemical pesticides continues to wreak devastating impacts on people and the environment. While acute cases of pesticide poisoning are a concern, the chronic long-term effects such as cancers; and endocrine disrupting effects are of increasing concern.

Every year on December 3, PAN AP collaborates with partners in many countries on events initiated to remind people of the hazardous effects of pesticides on human health and environment. For more information, visit [http://www.panap.net/147.0.html](http://www.panap.net/147.0.html)

(22) **United Nations Climate Change Conference. Bali, Indonesia. 3 - 14 December 2007**

The Conference, hosted by the Government of Indonesia, brings together representatives of over 180 countries together with observers from intergovernmental and nongovernmental organizations, and the media. The two week period includes the sessions of the Conference of the Parties to the UNFCCC, its subsidiary bodies as well as the Meeting of the Parties of the Kyoto Protocol. A ministerial segment in the second week will conclude the Conference.

What is needed is a breakthrough in the form of a roadmap for a future international agreement on enhanced global action to fight climate change in the period after 2012, the year the first commitment period of the Kyoto Protocol expires. The main goal of the Bali Conference is threefold: to launch negotiations on a climate change deal for the post-2012 period, to set the agenda for these negotiations and to reach agreement on when these negotiations will have to be concluded.

For more information, visit the conference website at [http://unfccc.int/meetings/cop_13/items/4049.php](http://unfccc.int/meetings/cop_13/items/4049.php).

(23) **Climate Change and Children. Nusa Dua, Bali, Indonesia. 10 December 2007**

A side event on “Climate Change and Children” is scheduled for 10 December 2007 at COP-13 in Bali. UNICEF is organizing this event to highlight the special vulnerability of children to climate change-related effects and the unique capacity of children and young people to adapt and to lead meaningful change at community levels. The programme panel of experts and policymakers will focus on specific climate change related challenges facing the world’s children and will seek to introduce and discuss practical interventions and best practices, both ensure that children are protected from environmental threats, as well as to empower and educate children and young people to action.
For more information visit the conference website, or contact: Lee Cando at lcando@unicef.org or +1 212 326 7780

(24) Gobar Times Green Schools Award Ceremony. New Delhi, India. 17 December 2007

The Gobar Times Green Schools Award acknowledges the most environmentally responsible schools of the country. The award instituted by CSE every year -- is based on the self-assessment of environmental practices carried out by schools. The assessment is done in accordance with the guidelines formulated by the Gobar Times Green Schools Programme in the form of the Green Schools Manual. The award holds a commitment towards continuously improving environmental management in schools. For more information, see http://www.cseindia.org/programme/eeu/gsp_award2007.htm


(27) Sixth session of the Intergovernmental Forum on Chemical Safety. Dakar, Senegal. 15-19 September 2008


The Intergovernmental Forum on Chemical Safety has created a new online resource on substitution. Substitution is a strategy of risk reduction through implementing solutions to prevent human and environmental exposure to certain chemical hazards while still achieving the intended goal. To replace harmful substances and processes with less harmful ones or with non-chemical alternatives, can be an effective strategy to reduce risks to human health and the environment. The IFCS Forum Standing Committee Working Group preparing the Forum VI session on the topic of substitution and alternatives is compiling case studies, examples and tools relevant to substitution and alternatives. The website with initial postings (only in English, but some of the
(29) IPCC Global Warming Report

The Synthesis Report forms the final part of "Climate Change 2007", the IPCC Fourth Assessment Report. Earlier this year, the IPCC released the other three reports: "The physical science basis" (February 07); "Impacts, Adaptation and Vulnerability" (April 07); "Mitigation of Climate Change" (May 07). The science related to climate change is vast and complex, and the IPCC has worked with scientists around the world to collect, assess and process the body of solid and up-to-date scientific literature. All this information is contained in the first three volumes of "Climate Change 2007". The Synthesis Report goes one step further: it is the decisive effort to integrate and compact this wealth of information into a readable and concise document explicitly targeted to the policymakers. The Synthesis Report also brings in relevant parts some material contained in the full Working Group Reports over and above what is included in the Summary for Policymakers in these three Reports. It is designed to be a powerful, scientifically authoritative document of high policy relevance, which will be a major contribution to the discussions at the 13th Conference of the Parties in Bali during December.

The report is available at http://www.ipcc.ch/
Information: Carola Traverso Saibante, IPCC information and communication Officer, Tel: 0041-22-7308066

(30) Activities of the International Society of Doctors for the Environment (ISDE) and Asociación Argentina de Médicos por el Medio Ambiente (AAMMA)

New Book: "Measuring the Environmental Impact on Children's Health in the Southern Cone". The Canadian Institute of Child Health (CICH) and the Asociación Argentina de Médicos por el Medio Ambiente (AAMMA), in cooperation with the Argentine Ministry of Health and Environment, Health Canada, the University of Ottawa and the Argentine Society of Pediatrics (SAP), are working together to complete a Profile that collects and compiles information on the state of Children’s Environmental Health in Argentina. This project is based upon the success that the lead Canadian organization (CICH) had with its flagship project: “The Health of Canada’s Children – a CICH Profile”.

ISDE/AAMMA received an EPA Children's Environmental Health Excellence Award.

For more information on these and other news and projects, please visit: www.aamma.org and www.isde.org

(31) EPA activities on children's environmental health

2007 Children's Environmental Health Excellence Awards. The Children's Environmental Health Awards aim to increase awareness and stimulate activity by recognizing efforts that protect children from environmental health risks at the local, regional, national, and international level. The Children's Environmental Health Champion is an honorary award presented to individuals in
recognition of their outstanding efforts and commitment to advancing children’s environmental health issues. The 2007 Children’s Environmental Health Champion award is presented to Dr. Ruth Etzel. Dr. Etzel is an internationally known epidemiologist, pediatrician, and environmental health specialist. She is being recognized for 20 years of work and for driving the effort to emphasize the critical importance of children’s environmental health for health professionals. Recently, Dr. Etzel has worked with the International Pediatric Association (IPA), with support from EPA, to launch a virtual International Pediatric Environmental Health Leadership Institute. The institute could eventually reach up to 500,000 pediatricians about children’s environmental health. IPA, WHO, and the United Nations Environment Programme held workshops in Nairobi, New Delhi, and Port-au-Prince that attracted 67 medical professionals from 21 African countries, 44 professionals from India, and 70 professionals from Haiti. The workshops used the WHO Training Modules on Children’s Environmental Health, which were developed with EPA support. The leadership institute will evaluate its training by administering a pediatric environmental health examination to those who attended the workshops. Pediatricians will become diplomats of the institute and will help teach workshops, serve as resources for information requests, provide clinical consultation upon request, and advise policymakers. Ultimately, the institute will improve participants’ expertise and leadership in recognizing, diagnosing, preventing, and managing pediatric diseases linked to environmental factors, and will enable them to be champions of healthy environments for children. The Excellence Awards are presented to groups or individuals who exemplify invaluable leadership in the protection of children from environmental health risks. The 2007 Children’s Environmental Health Excellence Award winners are

EPA-funded Researchers Lead the Way in Children's Health Research: To ensure healthy U.S. children, three EPA-funded researches will assume key roles in the National Children's Study, the largest study ever on the effects of environmental and genetic factors on child and human health in the US. The study will follow a representative sample of children from before birth to age 21. Contact Information: Suzanne Ackerman, (202) 564-4355 / ackerman.suzanne@epa.gov

EPA Reports on Decade of Progress on Children's Environmental Health Month: In honor of Children's Environmental Health Month, EPA releases is publication, Children's Environmental Health: 2007 Highlights. This publication, seventh in an annual series, highlights EPA work to protect children from environmental risks. This year makes the tenth year of explicit attention to the health of children following the Executive Order of 1997, Protection of Children from Environmental Health Risks and Safety Risks. EPA has funded research on how the environment affects children's health, promoted the education of health care providers, assembled data to quantify the extent of the issues, and been an international leader of children's health issues. The 2007 report captures all this and more. Contact Information: Ernesta Jones, (202) 564-4355 / jones.enesta@epa.gov

(32) Environmental Health Update

The Environmental Health Update is the newsletter of the Department of Sustainable Development and Healthy Environments of the WHO South-East Asia Region. The focus of this month's issue is on air pollution. As you may be well aware, air pollution has been a growing menace in the Asian countries since many decades. The main sources contributing to it have been
rapid industrialization, uncontrolled vehicular emissions and increased use of domestic solid biomass fuels.

Both the outdoor and indoor air pollution has been affecting the health of the people in the developing countries of the Asia-Pacific Region. The growing air pollution and greenhouse gases are adding to the environmental burden and are impacting the Earth's replenishment ability, thereby causing global warming and hastening the climate change phenomenon. Thus, there is a dire need to tackle the problem with concerted holistic interventions before they cause irreparable damage to our precious environment.

(33) New CDC Guidelines on Interpreting and Managing Blood Lead Levels <10 µg/dL in Children

This report summarizes the findings of a review of clinical interpretation and management of BLLs <10 µg/dL conducted by CDC's Advisory Committee on Childhood Lead Poisoning Prevention. This report provides information to help clinicians understand BLLs <10 µg/dL, identifies gaps in knowledge concerning lead levels in this range, and outlines strategies to reduce childhood exposures to lead. In addition, this report summarizes scientific data relevant to counselling, blood lead screening, and lead exposure risk assessment.

(34) New CDC NHANES data on arsenic available

The newest CDC NHANES arsenic body burden data was released in November. The data allows users to analyse arsenic levels in relation to all medical parameters they follow on an individual basis. It is also possible to look at socioeconomic parameters, including income, education, race, immigrant status, and so on. See the website at: http://www.cdc.gov/nchs/about/major/nhanes/whatsnew.htm

(35) New Book: 'Pesticides and Breast Cancer: A Wake Up Call'

Written by Pesticide Action Network (PAN) Asia and the Pacific scientist and coordinator of PAN Aotearoa/New Zealand, Dr. Meriel Watts PhD, the book provides a compelling argument for preventing the exposure of women and girls to many of today’s commonly used pesticides. This collation of scientific evidence stretching over more than 30 years indicts 98 pesticides—including insecticides, herbicides and fungicides—one common adjuvant and two contaminants of pesticide formulations, as having the potential to cause breast cancer. Breast cancer is by far the most common cause of cancer in women throughout the world, and incidence is escalating in the Asia Pacific region. It is time for systemic change in our attitudes to pesticides: we need to implement the precautionary principle and substitute safer ecological methods of managing pests, weeds and disease, for those pesticides exposed here as having the potential to cause breast cancer. For more information visit http://panap.net/275.0.html

(36) New Report: 'Healthy Planet, Places and People'
Research Australia has brought a panel of 10 scientists together to profile Australian health and medical research into environmental health issues that are likely to emerge or worsen due to climate change. The "Healthy Planet, Places and People” report is led by environmental epidemiology expert Professor Tony McMichael of the Australian National University. The report was launched at Martin Place in Sydney on 29 October, and covers emerging research in areas such as: the impact of climate change on the spread of infections disease; climate change, water supplies and health; asthma and climate change; the effects of climate change on mental health; the relationship between energy use, climate change and obesity; and heat extremes and mortality.

(37) New Scientific Panel on Sustainable Resource Management

Assessing the environmental risks of biofuel production and metal recycling are two of the issues likely to top the agenda of a newly formed global think tank on resource efficiency. Launched at the World Science Forum on 9 November, the new "International Panel for Sustainable Resource Management" will provide scientific assessments and expert advice on the use intensity, the security of supplies and the environmental impacts of selected produces and services on a global level. Established by UNEP, with the support of a wide range of governments, the European Commission and representatives from civil society, the new scientific panel is part of an international partnership on resource management. It will look at the impacts on resources and materials used in all phases of their life cycle. It is expected to provide hard scientific and empirical assessments, written in a clear language about complex issues and reports which can be read by those who can take action.

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ARTICLES

(1) AIR POLLUTION:

(a) Indoor air pollution

Home Indoor Pollutant Exposures among Inner-City Children With and Without Asthma
Evidence for environmental causes of asthma is limited, especially among African Americans. Looking for systematic differences in early life domestic exposures between inner-city preschool children with and without asthma, a study was performed of indoor air pollutants and allergens. EHP. November 2007.
Indoor air quality and respiratory health of children

Indoor air pollution (IAP) is an important health issue in developing countries and is a major contributor to mortality and morbidity from acute lower respiratory illness in children. In developed countries, IAP in homes is not as severe; but it does contribute to the risk of adverse respiratory health in children. Paediatr Respir Rev. 31 October 2007.

(b) Outdoor air pollution

Drama evident at EPA hearing on plan
The EPA is deciding whether to tighten pollution controls at refineries across the U.S. Five are in Harris County Texas. The proposed regulations would affect storage tank roofs, wastewater treatment and cooling towers — equipment that can leak hazardous many air pollutants like benzene and 1,3-butadiene. Houston Chronicle. 28 November 2007.

Ships draw fire for rising role in air pollution
As air pollution rises on the global agenda, pressure is mounting on a proliferating source of emissions: the shipping industry. Ships carry more than 90 percent of the world's merchandise, and the tonnage of cargo sent by ships has tripled since 1970. Fuel propelling them is dirty and produces a noxious exhaust. Wall Street Journal. 27 November 2007.

Particulate Air Pollution, Oxidative Stress Genes, and Heart Rate Variability in an Elderly Cohort
A team of researchers made a discovery that the combination of two genetic traits—a deletion of one gene and a polymorphism of another—combine to significantly increase the risk of oxidative stress and subsequent cardiovascular disease in some people exposed to PM2.5. EHP. November 2007.

Early Childhood Lower Respiratory Illness and Air Pollution
Researchers evaluated bronchitis in preschool children from two Czech Republic districts: Teplice, with high ambient air pollution, and Prachatice, characterized by lower exposures. Their goal was to examine rates of lower respiratory illnesses in preschool children in relation to ambient particles and hydrocarbons. EHP. October 2007.

(c) Environmental Tobacco Smoke/Smoking

Long-term consequences of maternal smoking and developmental chronic nicotine exposure
After a review of the literature, it appears that maternal smoking causes low birth weight; maternal smoking has only minor effects on cognitive functions in children; maternal smoking is a risk factor for ADHD; it remains to be seen if maternal smoking has long-term effects in children. Front Biosci. 1 Jan 2008

Association between environmental tobacco smoke exposure and wheezing disorders in Austrian preschool children
Passive smoking is a problem in children and adults, but studies found the impact to be strongest in the foetus and the first years of life. Researchers investigated the effect of environmental tobacco smoke on atopic and wheezing disorders in children. Swiss Med Wkly. 3 November 2007.
Developing Asthma in Childhood from Exposure to Secondhand Tobacco Smoke: Insights from a Meta-Regression  A meta-analysis of thirty-eight studies published between the years 1970 and 2005 was completed to determine the consistent patterns of relative risk estimates and uncover the true nature and strength of the association between second hand smoke exposure and asthma. EHP. October 2007.

(2) CHEMICALS: (a) General

Prenatal Arsenic Exposure Detected in Newborns Researchers have found that children of mothers whose water supplies were contaminated with arsenic during their pregnancies harboured gene expression changed that may lead to cancer and other diseases later in life. The study also suggests a new method for screening populations to detect signs of arsenic contamination. ScienceDaily. 23 November 2007.

Eden Restored A plan for the restoration of wetlands in Iraq will combine the ancient way of life of the returning Marsh Arab people with pioneering green technology. Once services are in place, project heads expect a huge wave of "reverse migration," with hundreds of thousands of Marsh Arabs who sought an existence in Iraqi cities or hiding in Iran expected to return. Guardian. 23 November 2007.

Study to track pollutants in pregnant women In the largest survey of its kind undertaken in Canada, researchers plan to track chemical pollutants in about 2000 pregnant women and their babies over the next 5 years to see what kind of industrial contaminants are in their bodies. One goal of the study is to see if heavy metals have any deleterious effects on children. Globe and Mail. 21 November 2007.

Ottawa investigates chemical found in baby bottles The federal government is looking into whether bisphenol-A, a common chemical in hard plastic containers such as baby bottles, is harmful to humans. The assessment is part of a new toxics program announced a year ago by Stephen Harper's government. Health Canada hopes to have a ruling on the chemical within a year. CBC. 15 November 2007.

Safety guide to children's personal care products Every day children are exposed to an average of 27 personal care product ingredients that have not been found safe for kids. This new children's product safety guide from EWG helps parents navigate around bogus claims and find safer products with fewer ingredients linked to allergies, cancer, and other concerns for their children. EWG. 1 November 2007.

Cord Serum Concentrations of Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoate (PFOA) in Relation to Weight and Size at Birth Scientists have accumulated a wealth of evidence that PFOS and PFOA accumulate in the environment and humans. Researchers are presenting the first evidence to suggest that human exposure to the chemicals is linked to reduced birth weight. EHP. November 2007.

Associations between Prenatal Exposure to Polychlorinated Biphenyls and Neonatal Thyroid-Stimulating Hormone Levels in a Mexican-American Population The results of the study support
grouping PCB congeners based on their potential mechanism of action of enzyme induction when investigating associations with TH, and that PCBs affect TH homeostasis even at low levels. EHP. October 2007.

**Determinants of Arsenic Metabolism: Blood Arsenic Metabolism, Plasma Folate, Cobalamin, and Homocysteine Concentration in Maternal-Newborn Pairs** Maternal and cord blood pairs were collected and analysed for arsenic concentrations or arsenic metabolite concentrations. Researchers conclude that exposure to all metabolites of inorganic arsenic occurs in the prenatal period. EHP. October 2007.

**b) Lead**

**New worries over lead** Christine and Erik Johnson of Minneapolis were thrust into the role of detectives when they learned that their 9-month-old son, Coen, had a blood lead level about five times the national average for children under 5. His 2-year-old sister had a lead level that was almost triple the average. Lead was found in many of the items in their home. Consumer Reports. December 2007.

**Taking Lead Safety Into Its Own Hands** When a California public-interest group, the Center for Environmental Health, decided that regulators in Washington like the CPSC were ignoring hazardous lead in children's lunchboxes, it pursued the case on its own and forced several manufacturers to get the lead out of products through notices to sue under Proposition 65. Washington Post. 10 November 2007.

**Sources of Exposure to Lead in Children** Researchers modeled environmental exposure of children to lead through food, tap water, soil and dust. In children, lead can cause significant health impacts such as a decrease in neural capacity and intellectual ability. Research found that lead exposure was mainly through food consumption. Science for Environment Policy, European Commission. 31 October 2007.

**c) Pesticides**

**Organochlorine pesticide exposure in children living in southern Spain** The presence of persistent organochlorine (OC) pesticides has been widely documented in adult tissues in Spain, but not yet in children. This study investigates the presence of pesticides in boys in Spain and to assess the association between OC pesticide levels and child characteristics. Environmental Research. January 2008.

**Curbs put on pesticide production** After a four-month safety campaign triggered by the presence of pesticides in food, Chinese officials revoked the licenses of seven pesticide manufactures and seized 479 tons of illegal pesticides. The closure of 16 factories producing methamidophos and four other organophosphate pesticides by 1 January 2008 was also announced. People's Daily Online. 30 October 2007.

**Sarkozy puts France on green track** French president Nicolas Sarkozy unveiled plans for a new "green revolution" last week, including a "temporary freeze" on GMOs and serious pesticide
reduction. He proposed halving pesticide use over the next 10 years, saying it was not just the responsibility of farmers but also of the companies that recommended and sell these products. *Guardian*. 26 October 2007.

**Pesticides Taking Huge Health Toll In Punjab's Malwa Region** A community health survey conducted by Kheti Virasat Mission (KVM), an NGO working in agricultural Malwa region of Punjab, India, revealed a rash of cancer clusters and other chronic illnesses. As reported in the News Post India, the study attributes these health effects to high levels of pesticide use. *News Post India*. 5 October 2007.

**Maternal Residence Near Agricultural Pesticide Applications and Autism Spectrum Disorders among Children in the California Central Valley** The goal of this study was to evaluate the hypothesis that maternal residence near agricultural pesticide applications during key periods of gestation could be associated with the development of autism spectrum disorders (ASD) in children. *EHP*. October 2007.

**Diabetes in Relation to Serum Levels of Polychlorinated Biphenyls and Chlorinated Pesticides in Adult Native Americans** Recent research suggests that diabetes, a condition whose incidence is increasing, is associated with exposure to polychlorinated biphenyls (PCBs) and chlorinated pesticides. This study investigates serum levels of PCBs, DDE, and HCB in adult Native Americans. *EHP*. October 2007.

**(d) Mercury**

**In Mongolia: Mercury Waste Threatens Water Supply** In September 2007, a Communities and Small Scale Mining (CASM) conference was held in Ulaanbaatar, which united international scientists in expressing their concerns for Mongolia's environment. Expert Robyn Grayson says "an epidemic of mercury disease" is foreseeable in several Mongolian towns. *The Asia Foundation*. 21 November 2007.

**Global Agreement on Mercury Pollution in the Works** The issues of using mercury to extract increasingly valuable gold from ore and the burning of coal were the focus of the first meeting of a new United Nations working group that took place in Bangkok. A range of options from voluntary measures and initiatives up to legally binding treaties is on the table. *Environment New Service*. 14 November 2007.

**U.N. wants global action on mercury threat** Countries must speed up collective efforts to phase out the use of deadly mercury, according to UNEP. "However, the fact remains that a comprehensive and decisive response to the global challenge of mercury is not in place and this needs to be urgently addressed," Achim Steiner, head of Nairobi-based UNEP, said in a statement. *Reuters*. 12 November 2007.

**(3) WATER AND SANITATION**

**Sanitation: Govt Tasks on Health Officials** Lagos State chapter of the Environmental Health Officers Association of Nigeria (EHOAN) has called on the state governor to employ more
registered and certified Environmental Health Officials (EHO). This is to meet with the World Health Organisation (WHO) directive of one health official to a population of 8,000 people. This Day. 27 November 2007.

Where death by water is part of daily life The shanty towns of Bangladesh's capital reek of excrement. Bangladesh is the object of the world's pity as it deals with the cyclone that killed more than 3,000 people. Yet when TV appeals are over, when attention has switched to another country stricken by flood, famine or earthquake, the stench of raw sewage will remain. The Guardian. 26 November 2007.

A (Toxic) River Runs Through It The Mantaro river basin, one of the main water sources in Peru's Andes mountains, is a dump for toxic substances, according to a study. The study shows that the river basin is a veritable sewer, containing cyanide, lead, arsenic, cadmium and mercury, used in mining, coliform bacteria from human waste, and nitrates from agrochemicals. IPS News. 22 November 2007.

Prioritise sanitation as a major agenda: UN Secretary General Ban Ki-Moon, speaking at the launch of the International Year of Sanitation, stressed that access to sanitation is connected to environment, education, gender equality and the reduction of child mortality and poverty. He said it is the cornerstone of economic development and environmental protection. The Times of India. 21 November 2007.

Tap water 'contaminated' Tap water at a community near Lamphun's Northern Region Industrial Estate exceeds the limit for lead and copper by four times, and is eight times over for zinc, Greenpeace claims. A campaign was held at the Ban Nong Ped tap water station in Tambon Ban Klan in Muang Lamphun to get government officials to inspect the water. The Nation (Thailand). 14 November 2007.

(4) GLOBAL CHANGE

Warming Climate Undermines World Food Supply Global agriculture could go into steep, unanticipated declines due to complications that scientists have so far inadequately considered, say three reports. The authors say that existing research fails to account for seasonal extremes of heat, drought or rain, multiplier effects of spreading diseases or weeds, and other ecological upsets. ENS. 30 November 2007.

Fever Outbreak Linked to Climate Change A disease outbreak in Europe is raising concerns that globalization and climate change are combining to pose a health threat to the West. Nearly 300 cases of chikungunya fever, a virus that has been common only in Africa and Asia, were reported in Italy-- where only isolated cases of the disease had been seen in the past. New York Times. 28 November 2007.

Hoping for a deal on the road to Bali The UN Climate Change Conference on the Indonesian island of Bali in December is not expected to achieve dramatic breakthroughs on saving the planet from global warming, but it could produce a timeframe on cutting greenhouse gas
emissions. The conference will look at a deal to be put in place after the Kyoto Protocol expires. IRIN. 27 November 2007.

Disasters quadruple over last 20 years - Oxfam Weather-related disasters have quadrupled over the last two decades, a leading British charity, Oxfam, said in a new report published on Sunday. From an average of 120 disasters a year in the early 1980s, there are now as many as 500, with Oxfam attributing the rise to weather conditions caused by global warming. AlertNet. 25 November 2007.

Asian leaders sign vague climate pact, Myanmar lurks Leaders of 16 Asian countries, including top polluters China and Japan, agreed on the to a vague pact on climate change, as they put aside discord over Myanmar's suppression of democracy protests. In the signed declaration, leaders of the East Asia Summit committed to stabilizing greenhouse gas concentrations. AlertNet. 21 November 2007.

(5) REPRODUCTIVE HEALTH

Reproductive disorders associated with pesticide exposure Exposure of men or women to certain pesticides at sufficient doses may increase the risk for sperm abnormalities, decreased fertility, a deficit of male children, spontaneous abortion, birth defects or fetal growth retardation. Pesticides have also been linked to altered function of immune cells and possibly childhood leukaemia. J Agromedicine. 2007.

(6) MISCELLANEOUS (a) General

What determines Junior's DNA? A new field of science is showing that almost every aspect of our environment--from stress to our food--can affect our genetic makeup in ways that can affect our bodies, and those of the next generation. It's called epigenetics and refers to any process that alters the gene activity in a strand of DNA without changing the genes themselves. The Star. 27 November 2007.

Nanotech's Health, Environment Impacts Worry Scientists The unknown health and environmental impacts of nanotechnology are a big worry, according to a report in the journal Nature Nanotechnology. Scientists were generally optimistic about the benefits of nanotechnology, but expressed concern about pollution and new health problems related to the technology. Science Daily. 26 November 2007.

The environmental impact on children of poor housing Reports have found that more than one million children in England are living in "damp, cold, infested" housing. More than one million houses in England are considered "unfit to live in." A survey based on the 2001 census has found that more than half a million families in the UK live in overcrowded housing. CommunityCare. 21 November 2007.

The Ambulatory Pediatric Association Fellowship in Pediatric Environmental Health: A 5-Year Assessment Evidence is mounting that environmental exposures contribute to causation of disease in children. Yet few pediatricians are trained to diagnose, treat, or prevent disease of
environmental origin. Three-year fellowships were created to train new leaders in PEH. EHP. October 2007.

**Electromagnetic fields (EMF): Do they play a role in children's environmental health (CEH)?** Possible adverse health effects of exposure to electromagnetic fields and especially in children have been a much discussed topic in the last decades. The effect, if existent, appears to be not very important in relation to established other causes of childhood leukaemia. Int J Hyg Environ Health. October 2007.

(b) Americas

**Southern California Ports Move to Curb Emissions From Shipping Industry** California is extending its official reach into shipping, one of the hardest to regulate industries, in hopes of reducing the pollution that officials say causes stunted lung development in children, lost workdays and chronic lung diseases in adults, and aggravation of an epidemic of asthma. New York Times. 30 November 2007.

**Province eyes cosmetic pesticide ban** Kawartha Lakes residence could be facing a cosmetic pesticide ban and stricter measures when it comes to lead levels in drinking water systems. The Ontario Liberals announced a plan for new laws that will reduce the environmental cause of sickness in Ontario. The new strategy includes laws to reduce pollution and educate citizens. Lindsay Post. 23 November 2007.

**Life in Peru's most polluted town** La Oroya, Peru, has been named by the US-based Blacksmith Institute to be one of the 10 most polluted places in the world for the last two years. Home to more than 30,000 workers, spouses, and children, La Oroya is a metal-smelting company town and many residents say nothing about the terrible air pollution for fear of losing their jobs. BBC. 15 November 2007.

**UN Secretary General Ban Ki-moon is in Argentina at the start of a tour of South America that is to focus on climate change** With what he has learnt in South America, Ban Ki-moon will go on to Valencia for a meeting of the UN Intergovernmental Panel on Climate Change. The report released there will set the stage for the UN climate conference in Bali, Indonesia, in December. BBC. 7 November 2007.

(c) Asia

**Chinese pollution plan includes tougher fines** China's water and air are straining to cope with the country's industrial take-off, the government said, vowing steps to make polluters pay more for environmental damage. The new plan is to cut two key pollution measures by 10 percent between 2006 and 2010; healing the lakes and rivers and recycling the waste from cities. ENN. 26 November 2007.

**China to hold Asia climate change meeting in 2008** Child will hold a meeting in Beijing next year for Asian countries to discuss climate change, as it faces the risk of more droughts and floods and seeks common ground on a potential successor to the UN Kyoto Protocol. China's
Premier Wen Jiabao reiterated a pledge to reduce energy consumption by 20 % in five years. AlertNet. 21 November 2007.

Japan pledges $1.8 bln for green projects in Asia Japanese Prime Minister Yasuo Fukuda pledged 200 billion yen in loans over the next five years for environmental projects in Asia, officials said. The projects include sewage disposal and sulphur dioxide scrubbing from power plant smoke stacks. It would also provide some $10 mln to a fund to preserve forests. AlertNet. 21 November 2007.

Delhi to get interceptor sewers The Delhi government has cleared a Rs 1,950-crore project to tap drains carrying sewage from unconnected colonies to the city sewers. Interceptor sewers used for tapping is seen by the government as a temporary solution to the problem of untreated water reaching the Yamuna. The government plans to lay more sewers through the city. Down to Earth. 15 November 2007.

(d) Africa

Climate change effects hit Zambia Zambia has already started experiencing adverse effects of climate change through floods and droughts in recent years, Tourism, Environment and Natural Resources Minister, Michael Kaingu told Parliament. Mr Kaingu said global warming effects had the potential to frustrate the implementation of development strategies. The Times of Zambia. 21 November 2007.

Uganda: Climate Change Increases Early Marriages Climate change has been blamed for increasing social problems such as early marriages, a report stated. The report "Climate Change: Uganda National Adaptation Programmes of Action," stated that climate change increases early marriages, leads to increased school dropout rates and exposes people to STIs. New Vision (Kampala). 14 November 2007.

(e) Europe

Children's environment in Central Europe: Threats and chances Governments, administration, industry and consumers disregard the long-term sustainability of their actions and behaviour, thus endangering the future of our children and grandchildren. This is in stark contrast with the existing declarations and official action plans. International Journal of Hygiene and Environmental Health. 31 October 2007.

Do we need CME for paediatric environmental medicine in Europe? The knowledge of health care providers on children's health and environment in Europe is insufficient, due to the lack of training in environmental medicine. Only CME in environmental medicine can fill this gap of knowledge and is thereby urgently needed. International Journal of Hygiene and Environmental Health. 31 October 2007.

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