



ENVIRONMENT HOUSE

NEWS

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A periodic update on the Geneva Environment Network and the International Environment House, Geneva

Conflict and the environment: lessons learned

By Pekka Haavisto, Chairman, UNEP Post-Conflict Assessments

Military conflicts always bring human suffering. But what do we know about their environmental consequences? What risks do they pose to human health and the recovery process? And how can the environment be integrated into reconstruction efforts?

Since 1999, the United Nations Environmental Programme (UNEP) has been working in areas of the world where the natural and human environment has been damaged as a direct or indirect consequence of conflict. Each situation of course is unique, due to the particular nature of the conflict, the society and the ecology. But together, our various post-conflict studies point to two general conclusions: military conflict is always bad for the environment, and environmental concerns are fundamentally important for both short-term humanitarian work and for long-term reconstruction and development.

Iraq's lost decades

UNEP's most recent post-conflict assessment work has focused on Iraq. A preliminary "desk study" conducted last April identified the main environmental threats facing the country and recommended actions for immediate relief and long-term recovery.

The report concluded that the most recent Iraq conflict has added to the chronic environmental stresses that have accumulated in Iraq over the past two decades. The country's environment shows severe damage from the Iran-Iraq war of the 1980s, the 1991 Gulf War, environmental mismanagement by the former Iraqi regime and the economic impact of sanctions.

A major threat to the Iraqi people is the accumulation of physical damage to the

Contents

- 1 **Conflict and the environment: lessons learned**
- 4 **A GEN Member profile: WSSCC**
- 5 **Geneva's Sustainable Development Celebrations**
- 6 **Association for the Protection of Lake Geneva**
- 8 **Upcoming environment-related events in the Geneva area**



Swiss Agency for the Environment, Forests and Landscape SAEFL

Produced with the generous support of SAEFL



A team from UNEP's Post-Conflict Assessment Unit surveys wildlife in Afghanistan.

CHRIS SHANK/UEP2002



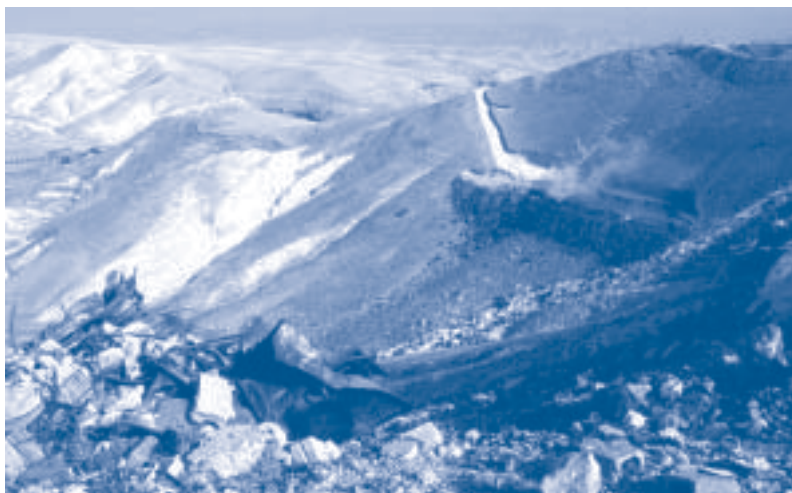
country's environmental infrastructure. In particular, the destruction of, and lack of investment in, water and sanitation systems has led to higher levels of pollution and health risks.

The destruction of military and industrial infrastructure during Iraq's various conflicts has released heavy metals and other hazardous substances into the air, soil, and freshwater supplies. An assessment of the country's chemical risks and levels of environmental contamination, however, has yet to be conducted.

Smoke from the oil-well fires and burning oil-trenches during the past two months has caused local air pollution and soil contamination. The lack of investment in the oil industry in recent years has reduced maintenance and raised the risk of leaks and spills.

Heavy bombing and the movement of large numbers of military vehicles and troops have further degraded natural and agricultural ecosystems. Meanwhile, transboundary pollution and a lack of river basin management have led to the degradation of Iraq's major waterways.

The report stressed the need for urgent measures to address humanitarian issues. Priorities should include restoring the water supply and sanitation systems, cleaning-up possible pollution 'hot spots' and cleaning-up waste sites to reduce the risk of disease epidemics from accumulated municipal and medical wastes. Another priority activity should be conducting a scientific assessment of sites struck with weapons containing depleted uranium (DU).



Waste dump in the Occupied Palestinian Territories. Solid waste management is one of several critical areas identified by UNEP as requiring urgent attention.

NatureNotes

Aliens invade Switzerland!

Exotic plants and animals continually invade Switzerland, often causing major impacts on indigenous flora and fauna. A new exhibition (6 April 2003 - 31 March 2004) at the Musée du Léman in Nyon describes the problem and presents some ways to intercept this onslaught of alien invasive species.

**Musée du Léman, quai Louis-Bonnard 8, 1260 Nyon (Vaud), Tél: +41 22 361 09 49
Or visit the on-line exhibit at www.museeduleman.ch/**



The Occupied Palestinian Territories

The long-lasting Israeli-Palestinian conflict combined with the Israeli occupation of the Palestinian territories has affected the territories' environment and freshwater supplies in many ways. There have been direct impacts, caused by military activities; indirect impacts caused by the war-like situation; and an overall environmental degradation due to the lack of administrative management and public awareness.

Many of the most direct impacts have resulted from military actions. As part of collateral damage, sewage systems, water supply lines and other infrastructure have been destroyed. Destruction of the buildings has also led to the release of hazardous materials – such as asbestos – into the environment.

These impacts have been exacerbated by a number of indirect impacts. Curfews and roadblocks, for example, have prevented people from using designated landfills. The waste collection system has collapsed. As a result, wastes are often burned in the middle of towns during curfew periods.

These immediate and acute environmental consequences of conflict are occurring alongside the long-term degradation of environmental governance. In times of conflict, there are few resources available for developing environmental management systems or educating people about how to take better care of the environment. This leads to a general decline in environmental quality that the casual observer can easily see in many parts of the West Bank and Gaza, where landfills are not being properly managed, the groundwater is not being protected from the many sources of contamination and sewage is flowing directly to the sea.

Afghanistan's hard road

Two decades of warfare in Afghanistan have degraded the environment to the extent that it now presents a major stumbling block for the country's reconstruction efforts.

According to our 2003 assessment, conflict has put previous environmental management and conservation strategies on hold, brought about a collapse of local and national governance, destroyed infrastructure, hindered agricultural activity and driven people into cities already lacking the most basic public amenities.

Three to four years of drought have compounded a state of widespread

STUART CHAPE



and serious resource degradation: lowered water tables, dried up wetlands, denuded forests, eroded land and depleted wildlife populations. With two million returning refugees in 2002 and a further 1.5 million expected this year, pressure on Afghanistan's natural resources and environmental services are set to increase further.

In contrast to highly urbanized Iraq, over 80 percent of Afghanistan's people live in rural areas, where they have seen many of their basic resources - water for irrigation, trees for food and fuel - lost in just a generation. In urban areas the most basic necessity for human well being - safe water - may be reaching as few as 12 percent of the people. Kabul's water supply system, damaged during the conflict and lacking routine maintenance, is losing as much as 60 percent of its supply through leaks and illegal use.

Other problems include ground-water contamination and toxic air pollution from badly managed solid waste sites, widespread loss of forest cover, potential risks from large stocks of dangerous or illegal pesticides, and over-hunting of snow leopards and brown bear and other rare species.

"Hot spots" and DU in the Balkans

UNEP's post-conflict assessment work started in the Balkans. Our assessment of the 1999 Kosovo conflict, for example, concluded that pollution detected at four environmental hot spots (Pancevo, Kragujevac, Novi Sad and Bor), was serious and posed a threat to human health. We called for immediate clean-up action for these sites as a part of humanitarian assistance to the region.

In addition to looking at the overall environmental situation, we conducted studies of the potential impacts in Bosnia-Herzegovina, Kosovo and Serbia and Montenegro of weapons made with depleted uranium (DU). Our most recent study found that DU from weapons used in Bosnia and Herzegovina in 1994 and 1995 had contaminated local supplies of drinking water and could still be found in dust particles suspended in the air.

In all of our DU studies, however, the recorded contamination levels were very low, and we could conclude that the existing immediate radioactive or toxic risks for the environment or human health were limited. Neverthe-



Geneva Green Guide - revised edition

The Geneva Environment Network's practical guide to Geneva-based organizations working on sustainable development and the global environment will soon be fully updated.

You may order your complimentary copy by sending an email to: greenguide@unep.ch, or by writing to us at Geneva Environment Network, International Environment House, 11-13 chemin des Anémones, CH - 1211 Châtelaine, Geneva.

In addition to the republished print version, the Geneva Green Guide can viewed an on-line in a searchable database format at www.environmenthouse.ch/guide.html. Users can search the database using a variety of criteria, including a set of keywords, or may view the list of organizations alphabetically. The electronic version of the publication is a living document and is updated regularly.

less, wherever DU is used UNEP recommends that the remnants be cleaned up, contamination points covered with asphalt or clean soil, DU material is disposed of and handled properly, records are kept of DU sites, and all health claims are investigated.

Lessons learned

This brief survey of UNEP's post-conflict assessments clearly demonstrates that political and military crisis are almost always followed by an environmental crisis. The central lesson to be learned is the need to minimize the risks for human health and environment. Taking care of the environment should be one of the first priorities of the international community.

Meanwhile, the UNEP post-conflict environmental assessments have clearly shown that not all environmental damage in conflict zones is directly

related to military action. Conflict is frequently preceded by social turmoil and gradual environmental degradation. Therefore, when we consider how to revive the environment after the guns fall silent, we must address the region's entire environmental history.

If humankind cannot avoid wars in the future, could wars at least be greener, and damage to the environment and human health more limited? The only way to minimise the environmental and health risks is through stricter regulations of warfare by limiting possible targets and weapons.

But war is always bad news for the environment. Adding environmental costs to the long list of the negative consequences of conflict - human casualties, refugees, economic losses - should make it even more attractive to look for non-violent solutions.

NatureNotes

Goldfish

The goldfish, or golden carp *Carassius auratus* is a domestic fish bred in China from wild carp as early as 1000. They were introduced in Europe for ornamental purposes in the 1600s, and were used by Madame de Pompadour in the ponds of her various châteaux. Widely distributed for breeding in ornamental fish-



ponds, they soon escaped to colonize natural waters, and eventually found their way to Switzerland, where they are known to compete with several species of amphibians.



A GEN MEMBER PROFILE

WSSCC: Putting water, sanitation and hygiene on the global agenda

By Gourisankar Ghosh, Executive Director, Water Supply and Sanitation Collaborative Council (WSSCC)

As the latest addition to the Geneva Environment Network fraternity, it is fitting that the Water Supply and Sanitation Collaborative Council (WSSCC) is itself a multi-stakeholder network.

Our Council was launched in 1991 with a mandate from the United Nations General Assembly to promote collaboration among UN agencies, donors, NGOs, companies, academic institutions and other interested partners. Every one of our 2,000 primary members, even the smallest local NGO, is an equal partner with the others. Working through an effective network of multi-stakeholders, we are committed to the goal of promoting safe water and sanitation for all, especially the poorest of the poor.

The WASH campaign

During the current International Year of Freshwater, everyone has come to know these vital statistics: some 1.1 billion people have no access to safe water and double that number – a staggering 2.4 billion people – have no access to adequate sanitation. This results in some 6,000 deaths daily,



Mrs Annan with children at the WASH and schools programme.

mostly children dying from preventable diseases such as diarrhoea and other water-borne illnesses. This grim reality in the developing world, however, rarely makes headlines.

WSSCC is trying to change this reality through its *Water, Sanitation and Hygiene for all* campaign, or WASH. Last year, this global advocacy campaign played a role in convincing the World Summit for Sustainable Development to adopt the powerful new sanitation target of cutting the proportion of people without access to sanitation by half by 2015.

It is impossible to overstate the importance of this target. It is the absence of sanitation that causes freshwater resources to be polluted with faecal matter on a massive scale, condemning more than a billion people to live with a daily environmental crisis of squalor, smells and disease. Half of the developing world's hospital beds are occupied by victims of sanitation-related illnesses. The lack of water supply and sanitation robs hundreds of millions of women of dignity, energy and time. Hygiene-related illness saps economic growth and costs billions of working days a year. A lack of attention to water, sanitation and hygiene can hold back the development of communities and entire nations.

We launched the WASH campaign in Bonn, Germany at the International Conference on Freshwater in December 2001 in response to decades of neglect by the international community and by the affected countries themselves. Since then the campaign has gained momentum through our members' energetic advocacy and communication efforts.

WASH has four key themes, based on the Council's Vision 21 principles:

- Water, sanitation and hygiene can save lives. For example, the simple

NatureNotes

Nutria

The nutria or coypu *Myocastor coypus* was introduced in France in the second half of the 19th century for its fur, after which it escaped and was purposely released to establish itself firmly in natural wetlands. It is often seen in Switzerland owing to the winter cold, although a few have been observed in the Jura and elsewhere. An aquatic herbivore, the nutria has no natural predators and can damage dams and embankments by digging and thin the vegetation of waterbird nesting areas. A campaign to poison the animal in France came to a halt when several birds of prey, foxes, dogs and cats died after eating the carcasses.





- act of hand-washing at critical times can cut deaths by one third;
- Water, sanitation and hygiene – with special attention to women and children – can achieve results;
 - Reforms are critical to improving services – good governance and a rights-based approach are fundamental to success; and
 - Water, sanitation and hygiene are entry points for poverty alleviation and sustainable development.

The WASH Campaign seeks to achieve the goals set in these themes by mobilizing communities and promoting people-centred approaches. It also focuses on building partnerships with all stakeholders and across sectors and disciplines, collecting science-based information and sharing experiences.

Next step: Global WASH Forum

On 17-22 March, 2004, the WSSCC will organize the First Global WASH Forum in Dakar, Senegal. The main focus of the Forum will be to develop a coordinated and collaborative strategy for reaching the global goals on water, sanitation and hygiene.

In Dakar, the Council will publish the "Peoples' Report". We are seeking contributions to this publication, in the form of opinions, arguments, facts, and experiences that will promote a vigorous discussion of the way forward. We need to collect evidence that new approaches are taking us in the right direction and are beginning to yield results. We are looking for examples of community-based hygiene, sanitation and water initiatives that are trying to confront the problems of cost, scale, sustainability and ownership. We will also develop profiles of individuals who are making a significant contribution – at any level – to the WASH cause.

Networks, after all, are made up of people, and it is people who make the difference.

For more information about the WSSCC, please visit us at

www.wsscc.org

or contact us at the WSSCC Secretariat, International Environment House, 9 Chemin des Anémones, Châtelaine, CH-1219, Geneva, Switzerland. Tel: +41 22 917 86 57; Fax: +41 22 917 80 84; E-mail: wsscc@who.int.

Geneva's Sustainable Development Celebrations

14-15 June 2003

Confirming Geneva's commitment to sustainable development, the Canton and the City of Geneva, jointly with the United Nations Environment Programme (UNEP), will organize again this year the Journées du développement durable. This second annual celebration has been expanded considerably and will be held on Saturday and Sunday, 14 -15 June, from 10h -19h, on the Plaine de Plainpalais.

The event targets Geneva's entire population and will enable visitors to explore the challenge of achieving a quality of life marked by solidarity and sustainability. The topics chosen for the 2003 celebration are mobility, consumption and solidarity.

A huge tent will host some 40 stands featuring various actors and institutions involved in implementing sustainable development principles on a daily basis. The programme will also feature a range of public outreach activities - circus shows, concerts, interactive plays, games, quizzes, discussion forums and surprises - for children and for grown-ups, and food and drinks will be available.

Other events will include a second-hand bicycle sale (plus bicycles that can be borrowed free for the day), a debate on citizen participation led by Geneva Mayor Christian Ferrazino, and an official ceremony at 14h on Saturday where Robert Cramer, Councillor of State in charge of the Swiss Department of the Interior, Agriculture and Environment (DIAE), will announce the winners of the Sustainable Development Fellowship and Prize granted by the Canton of Geneva.

For more information please call +41 22 327 89 93 or visit www.geneve.ch/agenda21/, www.ville-ge.ch/agenda21/, or www.environmenthouse.ch

NatureNotes

American crayfish

The American crayfish *Orconectes limosus* is prolific, adaptable and resistant to pollution. It is also immune to a fungus, known as crayfish pest, which is mortal to indigenous crayfish. It was introduced to Germany in the late 1800s to restock European waters after the native noble or broad-fingered crayfish *Astacus astacus* was devastated by the fungus. This introduction has proven unfortunate, however, helping to distribute the disease and facilitating the destruction of native species.



There are two indigenous crayfish in Lac Léman, *Astacus astacus* and the white-clawed crayfish *Austropotamobius pallipes*. Two other species have been introduced here: the freshwater crayfish *Astacus leptodactylus* and the signal crayfish *Pacifastacus leniusculus*.



Protecting Lake Geneva's waters

The Association for the Protection of Lake Geneva (L'Association pour la Sauvegarde du Léman) is a Franco-Swiss, not-for-profit association that was established in Geneva in 1980. The Association aims to defend the long-term biological and chemical quality of the waters in the Lake Geneva basin and to protect the life in the lake and along riverbanks.

Boasting 6,000 members, the Association acts through information campaigns, research and field work. For example, through its *Clean Rivers Action* campaign (Opération Rivières Propres), the Association is currently identifying, listing and evaluating the discharge of pollutants into the rivers of the Lake Geneva basin and the deposit of wastes along their banks and waterbeds. The Association provides volunteers with guides, maps, files and analytical kits with the aim of establishing pollution registers for every river.

The overall approach of *Clean Rivers Action* is to:

- Take effective action to save Lake Geneva and its tributary rivers by establishing a cadastral register of pollutant discharges and providing basic data to government offices



ASL/Bernard Mermoud

responsible for pollutant discharges, sanitation and wastes;

- Raise awareness among people and decision-makers about the importance of saving rivers and pursuing actions beyond those already being taken by governments and private companies to control pollution; and

- Encourage local initiatives to further mobilize interested municipalities in order to maintain the water quality of their local rivers.

Meeting human needs

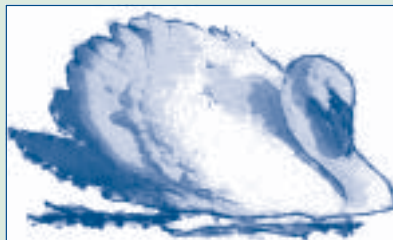
The degradation of water quality due to pollution affects people in many ways. *Clean Rivers Action* promotes sustainable development of the region's freshwater as a means of meeting human needs without damaging the environment. It therefore supports concrete efforts aimed at:

- Preserving drinking water supplies (over 500,000 people depend on Lake Geneva for their drinking water). By establishing the pollutant discharge register and facilitating pollution control, the Association seeks to promote the general improvement of the water quality of the rivers and the lake. This should make it possible in the long term to avoid the need for expensive treatment for keeping the water drinkable, which should reduce its price;
- Preserving the ecological quality of the environment so that fish species desirable to fishermen are able to thrive, thus maintaining professional fishing, with its high

NatureNotes

Beautiful stranger

The mute swans of Lac Léman *Cygnus olor* originated in Asia. A pair was released in a small pond in the Geneva countryside in 1837, after which the birds were purchased by the city of Geneva and kept in an enclosure by the Île Rousseau. In 1839 the Prince de Fürstenberg donated another pair. By 1904 the population had grown to 150-200 individuals and the swan had become a symbol of the city. Beginning in 1960 measures were put into place



to limit the population, but human pressures made this unnecessary: between 1874 and 1996 the population declined from 1437 to 792. Today there are no plans to eradicate them, since they don't seem to have a serious impact on indigenous species.



patrimonial value in the region, as an economic activity;

- Preserving quality leisure space that is healthful and relaxing and promotes tourism and the well-being of people living in the region. Lakes are an extremely important natural heritage and provide many social, aesthetic and economic benefits. The degradation of water quality can cause turbidity, unattractive changes in the water's colour and odour, exuberant growth of algae and weeds, and difficulties for swimmers and sailors, thus seriously impacting the socio-economic value of the lake.

Because water pollution can have such negative effects on the region's economy, it is vital that we take effective measures to limit pollution. Through its educational awareness and training efforts and its awareness-raising campaigns, *Clean Rivers Action* is having a significant social impact among residents of the Lake Geneva region. We are committed to continuing this vital work.

For more information, contact *Association pour la sauvegarde du Léman (ASL)*, 2, rue des Cordiers, P.O. Box 6146, CH-1211 Geneva 6, tel +41 22 736 86 20, fax +41 22 736 86 82,

asl@worldcom.ch
www.asleman.ch.

Clean Rivers Action – Facts and Figures

- 315 Lake Geneva rivers have been explored, equalling 8,330 km of riverbeds or over 16,000 km of river banks.
- 3,500 sponsors have lent financial support to the project and 2,000 volunteers have actively participated.
- Between 1990 and 2002, 20,143 outlet pipes have been identified. Of these, 2,254 emit high levels of pollutants and 1,390 moderate levels; 2,433 still need to be evaluated.
- 985 detailed folders and maps have been sent to Swiss and French government offices at the local and national levels.

NatureNotes

Fish invaders

Of the 30 species of fish in Lake Léman, 16 were introduced either accidentally or intentionally. Some have been spotted only occasionally, but five are well-established in the Lake:

From Europe: the barbel *Barbus barbus* (pictured), the common bream *Abramis brama*, the burbot *Lota lota*, and the three-spined stickleback *Gasterosteus aculeatus*. From the USA: the catfish *Ictalurus nebulosus*.



Promoting the chemicals/wastes cluster

Last November, the GEN organized a regional seminar for West African countries aimed at promoting an integrated approach to the national implementation of the Basel and Bamako conventions on hazardous wastes and the Stockholm and Rotterdam conventions on toxic chemicals.

Held in Cotonou, Benin, the seminar was immediately followed by a workshop that explored ways of

strengthening the capacity of participating countries to access and exchange chemical-related information.

Based on the success of these meetings, the GEN plans to organize similar seminars in other regions over the coming two years. For additional information, please see

www.environmenthouse.ch/int%20events.htm

NatureNotes

Zebra mussels

Through the end of the 18th century, zebra mussels *Dreissena polymorpha* were confined to the Black and Caspian Seas, after which they suddenly colonized all of Europe, adapting to fresh water.

They were found in the Rhine at Basel in 1860, but were not seen in Léman until 1962 when a diver saw them in Territet. Today they have spread throughout the lake.

Considered a serious pest in the USA, where they do billions of dollars of damage every year by clogging pipes and canals, they are less problematic here and even provide a valuable source of food for wintering waterbirds.





Upcoming environment-related events in the Geneva area

Date	Event (Organizer/contact)
5 June	World Environment Day 2003
5 June	Roundtable on freshwater, 10h00-12h15, International Environment House (GEN, Mr. Aniket Ghai, Email: aniket.ghai@unep.ch)
5 June	IUCN Open House from 16h00-19h00, Gland (IUCN, Tel. +41 22 999 0001)
13 June	Sustainable development seminar (organized by Canton of Geneva, City of Geneva, and UNEP, at International Environment House. Ms. Sandra Piriz, Email: Sandra.Piriz@amu.ville-ge.ch)
14-15 June	Sustainable development fair, Plaine de Plainpalais (organized by Canton of Geneva, City of Geneva, and UNEP, Plaine de Plainpalais. Mr. Giancarlo Copetti, Email: giancarlo.copetti@etat.ge.ch)
20 June	AEE+DD Lunchtime debate on City of Geneva's Agenda 21 (AEE+DD, Tél: +41 22 733 2032, Email: jclauraux@freesurf.ch)
7 July	WTO Committee on Trade and Environment (Ms. Sabrina Shaw, Tel: +41 22 739 5482, Email: Sabrina.shaw@wto.org)
8 July	WTO Special Session of the Committee on Trade and Environment (Ms. Sabrina Shaw, Tel: +41 22 739 5482, Email: Sabrina.shaw@wto.org)
14-18 July	Seventh Session of the Intergovernmental Negotiating Committee for the Stockholm Convention on Persistent Organic Pollutants (UNEP Chemicals, Mr. Jim Willis. Tel: +41 22 917 8191, Email: ssc@chemicals.unep.ch)
3-5 Sept	UN/ECE Working Group on Environmental Monitoring (UN/ECE, Tel: +41 22 917 4444 Email: info.ece@unece.org)
3-5 Sept	UN/ECE Executive Body for the Convention on Long-range Transboundary Air Pollution (UN/ECE, Tel: +41 22 917 4444, Email: info.ece@unece.org)
8-10 Sept	UN/ECE Steering body to the cooperative programme for monitoring and evaluation of Long-range Transmission of Air Pollutants in Europe (UN/ECE, Tel: +41 22 917 4444 Email: info.ece@unece.org)
15-17 Sept	UN/ECE Committee on Human Settlements (UN/ECE, Tel: +41 22 917 4444, Email: info.ece@unece.org)
15-19 Sept	UN/ECE Executive Body for the Convention on Long-range Transboundary Air Pollution (UN/ECE, Tel: +41 22 917 4444, Email: info.ece@unece.org)
15-24 Sept	Joint FAO-WHO Meeting on Pesticides Residues (Ms. Amelia Tejada, Tel: +39 657 05 4010, Email: Amelia.Tejada@fao.org)

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