

Nature Environment and Pollution Technology

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Conferences/Symposia/Workshops on Environment

9th International Soil Science Congress on “The Soul of Soil and Civilization”

14th to 16th October 2014
Side, Antalya, Turkey
Website: <http://www.soil2014.com>
Contact person: Ridvan Kizilkaya

Air Pollution 2014

7th to 9th July 2014, Opatija, Croatia (Hrvatska)
Website: <http://www.wessex.ac.uk/air2014>
Contact person: Genna West

Third International Conference on Climate Change & Social Issues 2014

28th to 29th July 2014, Colombo, Sri Lanka
Website: <http://www.globalclimate.info/>
Contact person: Prabhath Patabendi

4th International Chemical and Environmental Engineering Conference

27th to 29th November 2014,
Kuala Lumpur, Malaysia
Website: <http://sciconference.net/iceec/index.php>
Contact person: Inamullah Bhatti

7th International Conference on Waste Management and the Environment (Waste Management 2014)

12-14 May, 2014, Ancona~Ancona ~Italy
Website: <http://www.wessex.ac.uk/14-conferences/waste-management-2014.html>
Contact Person: Irene Moreno

National Conference on Environment and Biodiversity of India

4th to 5th October 2014
New Delhi, Delhi, India
Website: <http://www.ebiconference.com>
Contact person: J.S. Khuraijam

Water Pollution 2014

26th to 28th May 2014, The Algarve, Portugal
Website: <http://www.wessex.ac.uk/water2014>
Contact person: Genna West

22nd International Conference on Modelling, Monitoring and Management of Air Pollution (Air Pollution 2014)

7-9 July 2014, Rjeka-Rjeka ~Croatia (Hrvatska)
Website: <http://www.wessex.ac.uk/14-conferences/air-pollution-2014.html>
Contact Person: Genna West
Email Address: gwest@wessex.ac.uk

Uranium Mining and Hydrogeology 2014 International Conference (UMH VII)

21st to 25th September 2014,
Freiberg, Saxony, Germany
Website: <http://tu-freiberg.de/umh-vii-2014>
Contact person: Alireza Arab

Radiocarbon in the Environment

18th to 22nd August 2014
Belfast, Northern Ireland, United Kingdom
Website: <http://www.qub.ac.uk/sites/14C/>
Contact person: Evelyn Keaveney

2014 4th International Conference on Future Environment and Energy - ICREE 2014~

4-5 January 2014, Melbourne, Australia~
Website: [http://www.icree.org/~](http://www.icree.org/)
Contact person: Mr. Issac Lee~

International Conference on Latest Trends in Environment and Bio Engineering - LTEB

17th to 18th May 2014, Jakarta, Indonesia
Website: <http://lteb.theired.org>
Contact person: Dr. Seth

Environmental Impact 2014

14th to 16th May 2014, Ancona, Italy
Website: <http://www.wessex.ac.uk/impact2014>
Contact person: Irene Moreno Millan

ACSEE2014 - The Fourth Asian Conference on Sustainability, Energy and the Environment

12th to 15th June 2014, Osaka, Japan
Website: <http://acsee.iafor.org>
Contact person: Kiyoshi Mana

Conferences/Symposia/Workshops on Environment

Waste Management 2014

12th to 14th May 2014, Ancona, Italy

Website: <http://www.wessex.ac.uk/waste2014>

Contact person: Irene Moreno Millan

ICERE 2014 International Conference on Environment and Renewable Energy

7th to 8th May 2014, Paris, France

Website: <http://energy.conference-site.com/>

Contact person: secretary T. Berg

International Conference on Fisheries Sciences 2014

28th to 29th July 2014, Colombo, Sri Lanka

Website: <http://www.marinfish.org>

Contact person: Prabhath Patabendi

5th International Conference on Energy and Sustainability (Energy and Sustainability) (2014)

16-18 December, Kuala Lumpur, Malaysia

Website: <http://www.wessex.ac.uk/14-conferences/energy-and-sustainability-2014.html>

Contact Person: Christine Young

Sustainable Irrigation 2014

17th to 19th June 2014, Poznan, Poland

Website: <http://www.wessex.ac.uk/irrigation2014>

Contact person: Christine Young

12th International conference on Modelling, Monitoring and Management of Water Pollution (Water Pollution 2014)

26-28 May, The Algarve-The Algarve, Portugal

Website: <http://www.wessex.ac.uk/14-conferences/water-pollution-2014.html>

Contact Person: Genna West

2nd International Conference on the Design, Construction, Maintenance, Monitoring and Control of Urban Water Systems (Urban Water 2014)

27-29 May 2014, The Algarve-The Algarve, Portugal

Website: <http://www.wessex.ac.uk/14-conferences/urban-water-2014.html>

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International Conference on Advances in Bio-Informatics, Bio-Technology and Environmental Engineering - ABBE 2014

14th to 15th June 2014, London, United Kingdom

Website: <http://abbe.theired.org>

Contact person: Dr. Seth

20th International Interdisciplinary Conference on the Environment

13th to 15th June 2014, Denver, Colorado, USA

Website: http://ieaonline.org/?page_id=68

Contact person: Shane Epting

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DID YOU KNOW

- According to UNICEF, more than 3000 children die everyday due to consumption of contaminated drinking water.
- According to the U.S. Environmental Protection Agency, it is estimated that one ounce of bleach has to be diluted with about 312,000 ounces of water to make it safe for fish.
- According to the World Health Organization (WHO), annually, around 3 million workers from agricultural fields in developing countries suffer from severe pesticide poisoning, and as a result about 18000 people die.
- Mining sites expose heavy metals, sulfur compounds and other metals. The waste that is generated as a result of mining activities is leached by rainwater and ultimately ends up polluting soil, groundwater and surface water. This can result in very high concentrations of chemicals like arsenic, sulfuric acid, mercury, cyanide and heavy metals like lead or cadmium in the water sources that are used for various mining processes.
- The chemicals present in various household products, litter and trash and the ones in industrial wastes (chlorinated solvents, organic solvents, metals, etc.) mix with the water. 80% of the medicines that we consume are excreted into the water. They also seep through the soil and contaminate the groundwater, the major source of drinking water in the world. Industrial wastes are also a significant sources of water pollution, often giving rise to contamination with heavy metals (lead, mercury, arsenic and cadmium) and persistent organic compounds.
- According to an estimate, if every family in the United States bought a four-pack of 260 sheet recycled tissue paper, it would eradicate 60,600 pounds of chlorine pollution, preserve 356 million gallons (1.35 billion liters) of freshwater and save nearly 1 million trees.
- The heavy metals and other chemicals like lead, cadmium and mercury found in water due to activities like mining accumulate in the fat tissues of fish and their concentration increases as they move up the food chain. This is called biomagnification. It results in tumors and death for predatory animals such as lake trout, herring gulls, and even humans.~
- Over 1 billion people worldwide lack proper access to safe and healthy drinking water. Most of the sources of drinking water today are found to be polluted and non-drinkable. The pollutants in the drinking water lead to acute symptoms like nausea, vomiting, dizziness, fever, sore throat, headache, muscle and joint pain. The pollutants can also trigger allergic reactions such as asthma, eye irritation, skin rashes, blisters around the mouth and nose, lung irritation, liver damage and sometimes even death.~
- According to the World Health Organization, contaminated water is the major source of over 80% of all sickness and diseases like diarrhea, gastroenteritis, hepatitis, cholera or typhoid infections.~
- The plastic and litter that is thrown away ends up in the water resource and is consumed by aquatic animals. It affects their metabolic processes and causes choking, eventually leading to their death.
- A study undertaken by a volunteer organization—"Clean up the World"—found that one cigarette butt can contaminate 7.5 liters of water in one hour. It percolates nicotine, heavy metals, benzene and other carcinogens along-with plastic fibers from the cigarette in the water bodies. The world's waterways are clogged up by an estimated 1.7 billion pounds of cigarette butts annually.

ENVIRONMENTAL QUOTES

- We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.
Aldo Leopold
- The ultimate test of man's conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard.
Gaylord Nelson
- Thank God men cannot fly, and lay waste the sky as well as the earth.
Henry David Thoreau
- There are no passengers on Spaceship Earth. We are all crew.
Marshall McLuhan
- We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.
Aldo Leopold
- A Healthy Ecology is the Basis for a Healthy Economy
Claudine Schneider
- And Man created the plastic bag and the tin and aluminum can and the cellophane wrapper and the paper plate, and this was good because Man could then take his automobile and buy all his food in one place and He could save that which was good to eat in the refrigerator and throw away that which had no further use. And soon the earth was covered with plastic bags and aluminum cans and paper plates and disposable bottles and there was nowhere to sit down or walk, and Man shook his head and cried: "Look at this Godawful mess."
Art Buchwald
- I would feel more optimistic about a bright future for man if he spent less time proving that he can outwit Nature and more time tasting her sweetness and respecting her seniority.
Elwyn Brooks White

ENVIRONMENTAL NEWS

State of wastewater treatment in India

Urban and industrial India will have huge implications on the use of water and discharge of waste.

Cities worry about water, but not the waste this water will generate.

The challenge of sewage collection and treatment has not received adequate attention.

No Indian city is in a position to boast of a complete sewerage system, which can keep up with the sanitation and pollution challenge.

The capital intensity of the current waste system results in the fact that cities can only provide for a few and not for all.

If sewage systems are not comprehensive – spread across the city to collect, convey and intercept waste of all – then pollution will not be under control.

Factors that hinder wastewater treatment in India

The government report says, "The cost of a wastewater treatment plant depends on two key factors - the quality of raw influent and the quality of the receiving medium." It adds that most cities in India do not have facilities to treat human excreta or chemical industrial waste.

Furthermore, these plants are technologically backward and were built at times when the nature of waste was biological and not chemical.

With time, the quantity and characteristic of wastewater discharge has drastically changed. In their current state, most wastewater treatment plants are obsolete and are in need of newer technology and capacity expansion.

An important factor that hinders wastewater treatment is unavailability of land for building new plants. Land is in short supply in urban India and also a very expensive commodity. As a result, cities and towns are finding it difficult to manage and treat the huge quantities of waste generated on a daily basis.

Construction and maintenance costs are major deterrents too. According to the government report, in the mid-1990s, when the first-generation sewage treatment plants were built, they cost Rs 20 lakh to Rs 30 lakh per MLD (million litres per day).

Today, the same plants cost close to Rs 1 crore per MLD to build. India's deficit of sewage treatment would require huge investment, if only greenfield options are considered.

Retrofitting - A viable option

'Retrofit' or upgradation of existing wastewater treatment plants can solve problems of increased capacity as well as need for improved quality. Retrofitting can be defined as addition of new technology or features to older systems.

Retrofitting is less capital-intensive than building a new plant, optimizes the working of the existing plant while also increasing its lifespan. Membrane technology plays a vital role in retrofits. Low-pressure ultrafiltration membranes that can be fitted downstream of aeration systems of existing plants offer multiple benefits of capacity expansion and improved effluent quality.

Cont.... on page 702

ENVIRONMENTAL NEWS

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Few advantages of retrofitting with membrane technology include:

- Improved productivity of wastewater treatment plants
- Reduction in per unit operating costs
- Significant improvement in quality that can make effluent reusable in non-potable applications.

Treatment plants that used to discharge effluent could be upgraded and treated effluent could serve as a revenue generator.

Examples of retrofits in India can be seen in the industrial sector, where plants have seen increase in capacity by > 80% and improvement in effluent standards to reuse levels. This has been achieved with minimal investment in land and civil works. Such practices need to be translated in the Municipal segment as well, thus reducing the investment burden for new plants.

Based on The Report of the Working Group on Urban and Industrial Water Supply and Sanitation for 12th Five Year Plan (2012-2017)

Record Sea Surface Temperatures on Northeast Continental Shelf

Sea surface temperatures in the Northeast Shelf Large Marine Ecosystem during 2012 were the highest recorded in 150 years, according to the latest Ecosystem Advisory issued by NOAA's Northeast Fisheries Science Center (NEFSC). These high sea surface temperatures (SSTs) are the latest in a trend of above average temperature seen during the spring and summer seasons, and part of a pattern of elevated temperatures occurring in the Northwest Atlantic, but not seen elsewhere in the ocean basin over the past century.

Environment News Network

Gold rush sparked by global financial crisis devastates Amazon

The ravaging of the Peruvian Amazon by a wave of illegal gold mining is twice as bad as researchers had thought. That is according to a new study using groundbreaking technology that's discovered thousands of previously undetected small mines in the Madre de Dios region of Peru, near the Bolivian border, a global biodiversity hotspot. Thanks to its stunning wildlife, the region is home to various nature and indigenous reserves and dozens of thriving jungle lodges that welcome tourists from around the world. Yet it's also experienced widespread devastation since the 2008 global financial crisis saw gold prices rocket. Thousands of miners have flooded into the region, dredging riverbeds and carving up vast tracts of the forest floor in remote areas beyond the reach of the authorities. They have also poisoned the water table for miles around by dumping hundreds of tons of mercury, which miners use to extract gold from the soil.

According to the report, by the Carnegie Institution for Science and published in the Proceedings of the National Academy of Sciences, the mining has cleared 15,180 acres of forest per year since 2008 – twice previous estimates. That's roughly the size of 20 Central Parks. The researchers made their discovery thanks to new technology including LiDAR, a laser mounted on a plane overflying the Amazon that creates 3D maps of the forest in far greater detail than anything previously achieved.

GlobalPost

ENVIRONMENTAL NEWS

Oil and effluents spell slow death for Mumbai creeks

An oil spill that destroyed a large stretch of mangroves around Mahul creek was reported last week, but the disturbing revelation is just the tip of the iceberg when the bigger picture of abuse of the creeks in the city is considered. At Mahul, where the crude was said to have been leaking for more than two months, locals say there is always a layer of oil floating on the creek water, indicating continual small leakages from Mumbai Port Trust (MbPT) pipelines. The other creeks in the city are no better, treated as they are as nullahs for the dumping of sewage and garbage. The neglect has robbed many locals of their livelihood. Where once fishermen used to place their nets, there remain only eyesores now. The offending substances dumped in the creeks can be seen floating on the surface, turning the water black, making the flow heavy and raising a stink that affects people living in the vicinity. The toll on the ecosystem is no less serious, as mangroves running along the creeks are jeopardized by the waste stuck at their roots. Chinmayi Shalya takes stock of the situation at four creeks.

DAHISAR CREEK

Sewage from the 5-km Dahisar river pours into this creek. The once-scenic river, too, now resembles a running drain. Holes once bored into the walls adjoining the river to deposit storm water now throw in untreated water from neighbouring housing societies and small-scale industries. Residents throw their garbage directly into the river. In the 1980s, fishing flourished in the river and the creek, but now it is unfit for the activity. The stench hits you even from a distance. Civic agencies or pollution authorities do not seem to care. The waste gets tangled in mangroves, affecting their growth. "The marine life here has been completely destroyed," said activist Harish Pandey of the New Link Road Residents Forum.

MALAD CREEK

The creek is known for its large mudflat island, coastal wetlands and mangroves, and now also for its deep grey water that carries waste from the commercial and residential complexes around. The water has become poison for mangroves and fish. About 15 years ago, the creek supported fishing communities. An assessment by the National Environmental Engineering Institute in 2010 showed the water was heavily polluted and vulnerable to bacterial pollution. "Dumping grounds have contributed considerably to the degradation of creeks," said Stalin D of the NGO Vanashakti. The activist said authorities had shown "undue haste" in clearing projects that would only increase pollution in the creeks.

VERSOVA CREEK

About 1,800 acres of mangroves and some 20,000 birds are still found here, despite heavy pollutants and dumping on the periphery of the creek. Industrial and human waste is discharged into the creek and its waters are murky. No fishing is done because of heavy concentration of chemicals and effluents. Builders eyeing construction projects create bunds around mangroves to keep water out. "This causes mangroves to dry up and eventually destroys them," said Sumesh Lekhi of the Oshiwara Lokhandwala Citizens Association. Lekhi and others wrote to the Maharashtra Coastal Zone Management Authority about 10 years ago, but all pleas to save the creek and mangroves fell on deaf ears.

MAHUL CREEK

The creek near Chembur is home to mangroves and migratory flamingoes that arrive on the mudflats in the winter. It also supports fishermen. MbPT pipelines run near the creek, supplying oil to BPCL and HPCL. Small leaks over the years have resulted in a film of oil over the water. The fishermen said their nets are frequently rendered useless as the slick sticks to these. The pollution affects the fish; often the catch cannot be sold. MbPT has been compensating the fishermen for their nets for more than six years now, but the leaks have not stopped. The latest spill destroyed about five acres of mangroves. The chief forest conservator (mangrove cell) said it was a miracle that fish could still be found here.

The Times of India, November, 2013