Toxics Link
for a toxics-free world

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Newsletter from **Toxics Link**

SPRINGS OF HIMALAYAS: A JOURNEY THROUGH NATURE'S LIFELINES AND STORIES FROM UTTARAKHAND

Springs, the life-giving sources of fresh water, emerging from the depths of the earth, connecting hidden aquifers to the surface. These natural springs are indispensable in sustaining unique ecosystems, supporting human settlements, and fostering a deep cultural connection with nature. Springs nourish life in diverse landscapes, from the majestic Himalayas to the tranquil meadows and arid deserts. About 60-70% of the Himalayan population depends on springs to meet their domestic and livelihood needs[1] .

As a life-giving sources of freshwater, they nourish the vibrant ecosystems and the communities of the Himalayas along with their culture attached to the springs. There are approximately 5 million springs in India and Indian Himalayan Region (IHR) alone hosts 3 million of them. According to a 2018 report from NITI Aayog, nearly 50 percent of them are drying due to climate change and anthropogenic interventions[2] . Although all mountainous regions have reported a decline in their functional springs, the situation is worse for some regions. The Almora region of Uttarakhand has lost more than 80 percent of its functional springs. An assessment by ICIMOD in 2015 concluded that almost 80-90% population of Uttarakhand is dependent on springs[3] .

MANAGING EDITOR:
Satish Sinha
satish@toxicslink.org

EDITORIAL TEAM:
Neha Shukla
neha@toxicslink.org
Yashrah Ilhaq
yashrah@toxicslink.org

DESIGN BY:
Aspire Design
aspiredesign@gmail.com

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EDITORIAL

SATISH SINHA
Associate Director, Toxics Link

As I prepare to write this piece, I learn of the disheartening news of yet more cloud bursts, flashfloods and the resultant devastation and deaths in the hill state of Himachal Pradesh. These weather activities are no more isolated incidents but are occurring at much regular frequency with added severity. The neighboring hill state of Uttarakhand also witnessed similar weather patterns this year but with relatively lesser damage and loss. A closer investigation of the loss of life and property does suggest over-exploitation of land with little regard to building laws and safety concerns. While we account for the loss and damage of infrastructure in financial terms and start to rebuild and rehabilitate but sadly we will, without much learning from such events.

These weather-related activities are not restricted to specific geographies or seasons; rather, they are occurring across the globe with increased frequency and intensity like the unprecedented European summer this year, the forest fires and the cyclones demonstrate the ferocity of nature and its potential to cause serious disruption to normal human life. These weather events and disasters are strong signals suggesting that the environmental damage that has already been done cannot be reversed. The pace of disaster and ferocity will only continue to increase in case the world moves forward without making the desired shifts. We hope some meaningful discussion and negotiations take place during the upcoming Conference of Parties on Climate Change in Dubai coming November and all parties are willing to make some sacrifices for the greater global good.

There have been several other important events and interventions in the previous months on improving environmental management and governance at the global level. Among these, two important ones being the BRS COP (Conference of Parties on Basel Rotterdam and Stockholm) and the Plastics treaty (INC). Both these were of extreme significance since they addressed issues of transboundary movement of waste and the use of highly toxic chemicals. The conference on the plastic treaty attempting to negotiate a globally binding instrument to address the complexities of plastic pollution witnessed the presence of a strong Indian delegation voicing resistance to some aspects of the binding mandates. The treaty process is currently ongoing and is expected to reach its finality sometime in 2024. Citizens and important stakeholders are hardly aware of these global happenings, since the media hardly has any substantive coverage of these global events and decisions. Amidst this backdrop, Toxics Link participates in most of these global events and tries to share the outcomes through its web pages and social media. We encourage you to stay vigilant for updates and insights on these crucial initiatives.

It gives me immense pleasure to share with you that Toxics Link has now entered its twenty-fifth year of continued engagement on environmental issues with the sole objective of reducing toxicity from our surroundings. This journey of 25 years was not possible without your support and good wishes. Our unwavering commitment to addressing environmental toxicity has led to significant changes, yet we have a long way to go. We look forward to your continued support and guidance, as we move ahead on this remarkable journey towards a healthier and more sustainable planet.

— Best Wishes

Springs and Their Significance in the Himalayas:

The unique role of springs lies in their ability to provide a constant flow of freshwater, even in the most challenging terrains[4] . The ecological significance of springs in the Himalayas cannot be ignored. These water resources support a rich diversity of flora and fauna, creating unique microclimates that facilitate the growth of plant species and provide habitats for various wildlife[5] . From endangered species of plants to elusive mountain animals, springs support life and foster biodiversity in a challenging environment. They also contribute to maintaining the ecological balance of the region, allowing different ecosystems to thrive and promoting the overall health of the fragile mountain ecology.

Springs also hold a deep cultural significance in the lives of the Himalayan communities. For generations, springs have been revered as sacred, integral parts of local myths, traditions, and religious practices. In parts of Uttarakhand, it is considered auspicious for newly wedded bride to visit the Naula (Spring) before entering her new home, implying the cultural importance of Springs. The deep-rooted cultural connection between the people and these natural water sources fosters a sense of responsibility and respect, leading to age-old conservation practices and sustainable use of these precious resources.

Scientific Understanding of the Springs

The formation of springs is a combination of geological and hydrological processes. It starts with precipitation in the form of rain or snow at higher altitudes, which contributes to water accumulation in the mountain region. As this water percolates through permeable rock layers, it gradually moves downwards due to gravity, creating underground pathways. These pathways lead to the formation of aquifers, which are porous rock formations that store and transmit water.

As the water continues its downward journey, it encounters impermeable layers of rock that prevent further downward movement. At this point, the water is forced to change direction and resurfaces as springs where the impermeable layer intersects the earth's surface[6] . Based on the formation of spring along the natural fault or fracture in the rock, and soluble rock, springs can be distinguished[7] .

Concerns Around Springs in the Himalayas:

The Himalayan springs, once considered perpetual sources of freshwater, are now facing various challenges that threaten their existence and ecological balance. One of the most pressing issues is the change in precipitation patterns. Springs are fed by the slow rainfall over a long period of time and slow snow melting at higher elevations. However, increased temperatures have accelerated the snow melting, changing the natural pattern and volume of water entering into aquifers. Unpredictable rainfall patterns and shifts in snowmelt timings affect the recharge of groundwater, disrupting the natural flow of springs and exacerbating water scarcity during dry seasons[8] .

Anthropogenic activities, such as expanding agricultural land and changing native plant species threatens the quality and quantity of water available for residents to use[9] . Use of cement and other impermeable materials for construction and other purposes force water to run-off, causing not only limiting the water available for aquifers but increasing chances of downstream flooding.

As springs provide essential watering points for wildlife, the loss of these water sources disrupts migration patterns, affects breeding habitats, and leads to the decline of various species. Furthermore, the degradation of ecosystems surrounding springs can result in soil erosion and loss of vegetation, further compounding the ecological impacts.

Success Stories of Spring Revival in the Himalayas

Amidst the concerns surrounding the depletion of springs in the Himalayas, there are heartening success stories that exemplify the power of community-led initiatives and sustainable water management practices in spring revival and conservation. One such inspiring project is the “Jal Jeevan Abhiyan” launched in the mountainous region for spring shed management, which aims to rejuvenate springs through science-based planning, capacity building, and stakeholder engagement. With the active participation of local communities, the project has not only restored numerous springs but also replenished groundwater levels, benefiting both human settlements and the surrounding ecosystems[10] .

In Uttarakhand’s Tehri Garhwal region, a forest officer, Dharam Singh Meena revived 66 springs ensuring water security to 1 lakh people from 23 villages. The officer teamed up with various NGOs and various institutes for springshed survey, treatment, management, and development. One of the major aspects of the rejuvenation program, afforestation was carried out by villagers planting about 10 lakhs local trees in almost 640 hectares of land. The program saw commendable results and solved the water crisis issue while generating employment opportunities in the process[11] .

Another notable initiative to revive springs was carried out through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). While it ensured the fixed employment to its workers, water conservation was achieved using check dams and contour trenches (Khal Khanti). The program has witnessed remarkable success in recharging springs and preserving the biodiversity of the surrounding forests.

One of the former project engineers, Dinesh Chandra Pandey, highlighted the community’s involvement as a driving force for success: “The active involvement and support from the local community played a pivotal role in the successful outcome of the program. Moreover, the program’s cost-effectiveness can be attributed to the utilization of locally sourced materials and the engagement of local labours. By amalgamating the enthusiasm of the community members with their traditional knowledge of preserving springs, and complementing these

insights with scientific knowledge, the program achieved remarkable results."

These success stories illustrate the significance of initiatives in the revival and conservation of springs in the Himalayas. Such endeavours serve as beacons of hope for other regions facing similar challenges, emphasizing the importance of collective action in safeguarding the precious springs that sustain life.

Stories from the Himalayas:

Tara Basola, a farmer from a picturesque village in the Kumaon region of the Himalayas, whose life has been intertwined with the fate of a cherished spring. For years she has been collecting water from the local spring as the community tap system is not adequate to sustain her crops and feed her livestock. However, in recent years, Tara noticed a gradual decline in the spring's flow, leaving her village parched during the dry months.

Driven by love for her land and a deep sense of responsibility, Tara embarked on a mission to revive the ailing spring. Drawing inspiration from her ancestors' wisdom, she implemented traditional water conservation methods. Rallying the support of fellow villagers and local government, Tara initiated community-led wide leaf tree plantations drives and cleaning water pathways to replenish the groundwater and prevent soil erosion, ultimately benefiting the spring.

As the years passed, Tara's efforts bore fruit, and the spring that once struggled to quench the village's thirst regained its vigor. Today, Tara's eyes light up with pride as she speaks about the revived spring that not only nourishes her crops but also rejuvenates her community's spirit. She states, "The spring is not just water to us; it's our lifeline, our heritage, and our future. It is our duty to protect it for our children and their children."

Tara's story is one of many personal accounts that revolve around the Himalayan landscape, encapsulating the profound connection between people and springs. These stories embody the emotional bond that locals share with these natural water sources, interwoven with their cultural practices, and survival. They remind us that beyond being sources of freshwater, springs symbolize a way of life, sustaining communities and fostering a deep sense of belonging to the land.

As we reflect on Tara's journey and others like hers, we are reminded of our shared responsibility in safeguarding the springs of the Himalayas for future generations.

by **Himanshu Pandey**,
Programme Officer
(Waste and Sustainability)
Toxics Link

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PESTICIDE RESIDUES HINDER INDIA'S AGRI EXPORTS

In December 2018, the Ministry of Commerce and Industry introduced a comprehensive Agriculture Export Policy to diversify India's export basket and destinations and boost high-value and value-added exports. The policy aimed to double India's agricultural exports, from $30 billion in 2018 to $60 billion in 2022 and $100 billion in a few years thereafter.[1] However, market access is a significant hurdle to reaching this goal, identified within the policy, especially concerning sanitary and phytosanitary issues.

Sanitary Barriers: Hindering India's Agri-Exports

Sanitary issues revolve around the safety and quality of food products and the potential risks to human health. They involve measures to prevent contaminants' introduction, transmission, and spread through food. These measures can include introducing **maximum residue levels (MRLs)** or requiring specific food safety certifications. The 2018 policy identified pesticide and chemical residues as a "chief cause of concern" for Indian agricultural exports.

In recent times, several Indian shipments of agricultural produce have been rejected due to the presence of chemical residues at levels higher than the MRLs of importing states. For example, **in 2022, 675 shipments of agricultural produce from India were stopped at EU borders for containing excessive pesticide residue**, increasing from 212 interceptions in 2021. Nearly 79% of the shipments intercepted in 2022 were found to pose a 'serious' risk, compared to 69% in 2021.[2]

These interceptions affect some crops more than others. Cumin exports declined by 13 per cent in 2021 after China, the largest buyer, mandated shipments are residue-free of nine pesticides.[3] Mangoes, table grapes, okra, peanuts, curry leaves, chillies, and tamarind are other agricultural products that have encountered rejections and bans in different markets. This has twofold consequences for farmers and exporters: **immediate financial losses** in the short run and the **potential loss of market share** to exports from other countries in the long run. Indian exporters risk losing their market share to exports from countries that can meet stringent standards.

The government must step in:

A 2019 report from Indian Council for Research on International Economic Relations (ICRIER) pointed out that "(t) there has been an increase in the use of risk analysis techniques, and several developing countries are taking measures to implement more stringent food safety standards for both exports and domestic consumption."[4] India has lagged on this front. The government has recognised that agricultural exports are essential in doubling farmers' income.[5] The government must take proactive steps to ensure that India's agricultural exports are not shut out of key markets due to sanitary measures.

Regulation of Highly Hazardous Pesticides (HHPs)

In July 2013, the Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare constituted an **Expert Committee under the chairmanship of Dr Anupam Verma** to review the use of 66 pesticides that were banned, restricted, or withdrawn in one or more countries but continued to be registered for domestic use in India. Based on its recommendation, the government **passed two draft orders to ban some HHPs** and place end-use restrictions on others, but neither **was notified**. The continued use of HHPs in India damages the environment and the health of farmers and consumers and hurts exports. **Effective regulation of HHPs is thus essential** to boost agricultural exports.

Information Dissemination

The **Agricultural Extension system** is vital in disseminating accurate information on pesticide use and promoting Good Agricultural Practices (GAP). In India, the system has **limited reach,** and information dissemination is hindered by **delays, outdated content**, and a **gap between research findings and their practical application**. As a result, most Indian farmers rely on sources other than the government for information about pesticides.

When Basmati exports faced rejection in the EU, exporters had to bear the burden of educating the farmers on what pesticides are banned. This can be avoided by **strengthening the agricultural extension system** and **proactively sharing information** on sanitary barriers so farmers and exporters do not face losses.

Expanding Laboratory Testing

Currently, limited laboratory testing facilities are approved by the Agricultural and Processed Food Products Export Development Authority (APEDA); they are also **not uniformly spread** across different states. For example, there are 122 APEDA-approved labs[6] across India, but only one is in Punjab. The testing procedures in India and importing countries often differ and can yield different results. As a result, India does not have any mutual recognition agreement (MRA) with countries like the EU. In its absence, these countries reserve the right not to acknowledge the inspection and the testing procedures.

Regulatory and cost hurdles limit the expansion of India's testing infrastructure. It takes about 3–5 months on average to obtain a license for testing facilities. Further, while the cost of getting the license is around Rs 50,000, the facilities must often be re-constructed to suit the requirements of importing countries. Thus, the total cost of setting up testing infrastructure can be Rs 5–10 crores.[7] The government can **reduce the regulatory burden** and **provide credit subsidies** to people setting up labs to help fill the existing gaps in testing infrastructure.

Traceability system

A traceability system is a mechanism that tracks and documents **the entire supply chain** of goods being exported from one country to another. Such a system **can reduce the number of border interceptions** by enhancing transparency and providing quality assurance. It will also allow the government to identify and address potential contamination risks before products reach the export market. The APEDA already has a traceability system for GI-protected goods called TraceNet. This can be scaled up to include crops with a high risk of interception by significant export destinations.

Some of these interventions will require considerable state capacity to implement. Since 85% of agricultural holdings in India are small and mid-sized, raw materials for export products are sourced from numerous small farms and agrarian mandis. This poses difficulties in ensuring comprehensive product traceability. End-use regulation of pesticides, i.e., releasing an 'approved' list of pesticides and dosages, has been unsuccessful[8] as monitoring pesticide use across millions of farms is nearly impossible. Poor funding, human resources, and organisational fragmentation hobble the extension system in India.

Given these challenges, the government must introduce innovative and convergent schemes in the three areas to reach its target of $100 billion from agri-exports and fulfil its promise of doubling farmers' income.

by **Akshay Bhagwat**
Senior Programme Officer
(Chemicals and Health)
Toxics Link

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RISK COMMUNICATION FOR ADDRESSING ENVIRONMENTAL AND HEALTH CONCERNS: NAVIGATING COMPLEXITIES AND BUILDING RESILIENT SOCIETIES

The world is grappling with unprecedented environmental and health challenges, encompassing climate change, air pollution, water scarcity, and emerging infectious diseases and pandemics. In India, with the Yamuna River inundating the streets of the national capital, public health risks have emerged as a critical concern. Experts emphasise the urgency of addressing potential health issues from floods and stagnant water. Effective risk communication plays a vital role in navigating these complexities and making well-informed decisions.

Understanding Risk Communication

According to the World Health Organization (WHO), Risk Communication refers to *"the real-time exchange of information, advice and opinions between experts or officials and people who face a threat (hazard) to their survival, health or economic or social well-being. Its ultimate purpose is that everyone at risk can take informed decisions to mitigate the effects of the threat (hazard), such as a disease outbreak and take protective and preventive action (WHO, n.d.)."*

Risk communication has evolved from informing about specific risks (e.g., investments, health, or disease outbreaks) to a broader approach encompassing acute and chronic risks. It now focuses on understanding the communication process to drive behavioural changes. Moreover, risk communication is applicable globally and locally, transcending borders.

Overcoming Challenges in Risk Communication

Despite its significance, risk communication faces several challenges. Expert disagreements, the presence of pseudoscientific or non-credible sources, and a lack of trust in authorities can hinder effective communication. Additionally, complex technical information and competing messages can confuse the public. The rise of social media has also amplified the spread of misinformation, highlighting the need for vigilance in addressing false information during health and environmental crises.

To overcome these challenges, certain good practices have proven effective in risk communication for environmental and health concerns. These practices include utilising multiple scientific and health sources to provide comprehensive information. Engaging in social listening and monitoring helps better understand public perceptions and concerns, facilitating tailored and culturally appropriate messages. Moreover, transparent and accessible language enhances general comprehension and trust in communication efforts.

Risk Communication during the COVID-19 Pandemic

The COVID-19 pandemic presented a real-time case study demonstrating the importance of risk communication in public health crises. Transparent and timely risk communication fostered public understanding and compliance, enabling communities to effectively curb the spread of the virus and protect public health. COVID-19 was a new disease, and scientific knowledge about it was uncertain and continues to evolve. The challenge was undertaken by communication initiatives that provided information on the latest scientific knowledge and modified it per the available information.

The coronavirus disease 2019 (COVID-19) infection showed no discrimination in infecting individuals; hence, it necessitated universal adoption of protective behaviours, resulting in non-segmented communication messages. In India, handwashing with soap is not practised at the expected level, with only 36 per cent of individuals washing their hands with soap before eating and 26 per cent failing to do so after defecation, as reported by the National Sample Survey Organization (NSSO) in 2018. Moreover, the knowledge regarding proper handwashing techniques is even lower. Therefore, risk communication efforts specifically emphasised the importance of 20 seconds of handwashing and guided adequate handwashing techniques. Special attention was directed towards protecting vulnerable populations, including the elderly, pregnant women, and children, as highlighted in certain communication advertisements.

The Water Positive Villages and Hamlets Initiative: A Participatory Approach

The Kutch Water Positive Villages and Hamlets Initiative provide valuable insights into effective risk communication for addressing environmental and health concerns. This initiative adopts a participatory approach involving the local community in understanding and managing water-related risks, thereby fostering trust and ownership among villagers. By prioritising water security and implementing sustainable water management practices, the initiative reduces health risks and enhances water availability, particularly during floods. Additionally, it aims to reduce distress migration by 30-40% of the marginalised communities by constructing water structures for water-based assets and irrigation facilities for 355 farmers for two crops and creating water security in 31 Gram Panchayats.

Navigating through complexities and challenges, risk communication stands as a crucial pillar in promoting healthier environments and safeguarding public well-being. As we progress, continuous improvement and integration of best practices in risk communication will play a transformative role in building resilient and sustainable societies.

by **Yashrah Ilhaq**
Programme Officer (Communications)
Toxics Link

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SECOND SESSION OF THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE ON PLASTIC POLLUTION (INC-2)

Plastic pollution is an urgent and pressing global concern. Plastic pollution is enormous, with the negative impacts extending to economic, social, and health effects. The situation is heightened in developing nations such as India, where the production and consumption of plastic and plastic products are extensive. The absence of comprehensive frameworks, locally and globally, to address the complete life cycle of plastic exacerbates the issue. This has resulted in calls for a coordinated global response from governments, businesses, and civil society to tackle the concerns.

To address this menace of plastic pollution, in March 2022, the United Nations Environment Assembly (UNEA) adopted resolution 5/14 to end plastic pollution. This landmark resolution created an Intergovernmental Negotiating Committee (INC) to craft an international legally binding instrument (ILBI) on plastic pollution.

The second session of the Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution, including in the marine environment (INC-2), took place from May 29 to June 02, 2023, at the United Nations Educational, Scientific and Cultural Organization (UNESCO) Headquarters in Paris, France.

While long delays and late nights characterised INC-2, the meeting was concluded by setting out a path for the inter-sessional period leading to INC-3, mandating the preparation of a "zero draft" of the new treaty for consideration at INC-3, and allocating time for a one-day pre-meeting event to discuss principles and scope of the treaty based on submissions that will be submitted both by Observers and Member States to examine a synthesis report of elements that were not considered during INC-2. It was agreed that there would be regional meetings. These meetings will likely happen back-to-back with the Regional Meeting in preparation for the Minamata COP-5.

Ms Priti Banthia Mahesh, Chief Programme Coordinator, Toxics Link, who participated in INC-2 as an observer, intervened in the plenary on behalf of Toxics Link, advocating for clear mandates on chemicals in plastics, as well as measures to control the adverse effects of micro and nano plastic pollution. Toxics Link strongly supports a Treaty that focuses on eliminating unnecessary plastics and toxic chemicals and mandates a harmonised effort and system to ensure a Just Transition and address legacy plastic waste. Toxics Link believes that the Global Plastic Treaty must be promptly established, incorporating robust and transparent measures encompassing not only waste management but the entirety of the plastic life cycle.

by **Neha Shukla**
Programme Officer (Communications)
Toxics Link

THE TRIPLE CONFERENCE OF PARTIES BASEL ROTTERDAM-STOCKHOLM — A 2023 UPDATE[1]

We live in an era where environmental concerns have reached a critical conjecture. The effects of planetary crises like climate change, biodiversity, and pollution have intensified, as have the issues from hazardous chemicals and their wastes. The synergistic effects of all these crises have become detrimental forces to our society and ecosystem. While talks about forever chemicals and plastic wastes are gaining momentum, other lesser-acknowledged toxic chemicals in stockpiles and wastes are causing long-term effects on the ecosystem. The Triple Conference of Parties Basel-Rotterdam-Stockholm (BRS) convention was formed to address these concerns.

This year, the convention was held in Geneva, Switzerland, between the 1st to 12th of May. The event attracted diverse stakeholders, including 175 parties and 143 observer organisations, 77 non-governmental organisations, five intergovernmental agencies, 16 regional centres, and 18 UN organisations. The initial joint COPs meeting worked on adopting technical assistance and financial resources to help alleviant monetary challenges in countries implementing changes initiated by BRS. The COPs also advanced work on illegal trafficking and trade of hazardous chemicals and wastes.

Basel Convention (COP 16) adopted the updated technical guidelines on the environmentally souond management (ESM) of hazardous wastes containing Lead, Persistent Organic Pollutants (POPs), nanomaterials, and e-wastes. More significantly, they adopted technical guidelines on plastic waste considering the ongoing negotiations for a separate new treaty on plastic waste. They initiated work to improve Prior Informed Consent (PIC) procedure and to develop new strategic frameworks.

The Rotterdam Convention (COP 11) presided over matters related to the interpretation of the convention (e.g., encouraging parties to adopt a national definition of pesticides and listing of chemicals subjected to mandatory PIC procedure for imports and export, etc.). The scientific subsidiary body presented Acetochlor, Carbosulfan, Paraquat, Fenthion, Chrystoline Asbestos, Iprodione, and Turbufos as the candidate chemicals for PIC. However, only Turbufos could attain enough votes. To counter the relatively slow listing process, parties agreed to establish an inter-sessional process to gather information from other parties on the challenges (direct and indirect effects) regarding the listing. Some delegates even proposed the introduction of a new Annex that would list chemicals on which parties could not reach a consensus. The objective of this move was to allow parties who ratified the new Annex an opportunity to establish PIC procedures on more chemicals than listed. The proposal failed to garner enough majority.

The Stockholm Convention (COP 11) celebrated the success of their work in decreasing the POPs concentration in people and the planet, according to their global monitoring report. Parties agreed to eliminate the production and use of Methoxychlor, Dechlorane Plus, and UV-328. The plastic additives, Dechlorane Plus and UV-328, were granted exemptions for specific equipment (e.g., medical devices) until 2041. The parties also adopted compliance procedures and mechanisms, something that was deemed unachievable since COP1.

The next BRS conference will be held between April-May in 2025 in Geneva, Switzerland. The Triple COP will continue to work on the technical guidance for sound management of wastes, listings of chemicals, and technical guidelines and financial assistance will also be discussed.

by **Vidhi Mathur**
Senior Programme Officer
(Chemicals and Health)
Toxics Link

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1. Earth Negotiation Bulletin IISD: Summary report Basel Rotterdam Stockholm Convention

DISCUSSION

IN A DISCUSSION WITH
Dr Prasad Modak

Dr Prasad Modak is a distinguished environmentalist and a sustainability expert. Dr Modak is the Managing Director of Environmental Management Centre Pvt: Ltd and the Director of Ekonnect Knowledge Foundation. With over four decades of experience, Dr Modak specialises in various fields, including environmental policy, environmental assessment, ESG (Environmental, Social, and Governance) integration at financing institutions, business sustainability, circular economy, and capacity building in environmental management.

Neha: With your extensive experience in environmental policy, what are the most pressing environmental challenges facing the world today, and how can they be effectively addressed?

In my opinion, climate change is one of the most pressing challenges the world is facing today. Although there have been several discussions and agreements at the international level, and action plans are drawn on national and subnational levels, there is still low traction on the ground. We will need to increase climate literacy and mainstream climate change-related considerations in our policies, plans, programs, and development projects. Raising climate finance innovatively is yet another need.

Neha: As a specialist in ESG at financing institutions, what strategies or frameworks would you recommend for integrating environmental, social, and governance considerations into investment decisions?

Most investors now recognise ESG as an essential strategy for addressing risks and enhancing opportunities. The benefits of ESG-driven investments are not just for the shareholders but also for the stakeholders, including those vulnerable and at the bottom of the pyramid. In this perspective, the investors may consider following ESG indicator frameworks proposed by the World Economic Forum (WEF). This indicator framework is integrated with disclosure frameworks such as GRI, SASB, CDP, and TCFD. It is essential, however, to remember that sound Governance is the key.

Generally, investors use tools like environmental and social due diligence (ESDD) that focus on compliance. At EMC, we recommend a 7C approach that covers **compliance** (not just regulatory but with the markets), **Competitiveness** (e.g. by improving resource efficiency), **Climate Responsiveness** (e.g. looking at climate risks and encouraging investments in decarbonisation plans), and **Circularity** (by exploring investments beyond a project but exploring the circular ecosystem, e.g. making *cluster investments*). The other 3 Cs include aligning with **Corporate Social Responsibility**, **Corporate Communication,** and taking on **Capacity Building**. The 7C approach, when followed at the entry-level, is expected to yield a higher company value. Investors can then claim a *Midas touch* during the exit.

Neha: With ESG reporting being mandated in India, how would you assess the current state of ESG reporting in the country? Are companies effectively implementing and disclosing their ESG practices?

The current state of ESG reporting is India is moving up the curve. The requirement of BRSR from SEBI has undoubtedly made an impact. It will soon get extended to cover supply chains. Investors now ask for climate-related reporting such as CDP and TCFD and insist on disclosures on GHG emissions and climate-related risks. These requirements are relatively new; hence, I see some struggle at the end for investors, companies, and consultants. I fear, however, the danger of greenwashing as data validation is often poor, and reporting requirements are treated merely as a checkbox. SEBI's move on introducing assurance for BRSR is hence welcome. While *report submission* is essential, many companies do not understand that *process of reporting* is equally important. The reporting process must engage the organisation and sensitise the top company management to guide road mapping ESG. I am, therefore, somewhat weary of seeing the proliferation of digital platforms that are promising ESG reporting on the fly.

Neha: The concept of circular economy is gaining momentum in sustainability. How have industries in India embraced the principles of circular economy? Do you have any examples to share?

Indeed, the circular economy is getting increasing traction in India. There is today a significant policy and regulatory push, and many line ministries have begun taking action at the sector level. At the sub-national level, the State of Goa prepared a plan for resource efficiency and circular economy. EMC is currently engaged with Gujarat Pollution Control Board to prepare a circular economy action plan for the State of Gujarat. But we need a massive effort on awareness and capacity building on the circular economy if these action plans are to be implemented.

Recognising the importance of capacity building, Ekonnect Knowledge Foundation, my not-for-profit company, conducted India's first winter school on circular economy. This school was a huge success, and as a follow-up, Ekonnect conducted as a follow up a summer school in a virtual mode during COVID-19. Ekonnect then did a master class on circular economy for FICCI and organised the first Global Leadership program on circular economy with Green Industry South Australia in Adelaide.

More recently, Ekonnect conducted courses on circular economy for Switch Asia training 45 professionals in 11 countries in South Asia and trained more than 200 MSMEs in Malaysia for the Malaysian Ministry of Human Resources. But there is still so much to be done.

The circular economy is unfortunately not fully understood in India. Life cycle thinking is not yet fully anchored in practising circular economy. India does not have a policy on sustainable public procurement. Our Eco-mark scheme is relatively weak and outdated. Many think the circular economy is equivalent to implementing recycling projects. We badly need the establishment of a remanufacturing council that is visionary.

To make circularity a business case, we do need examples that are insightful and can inspire. We have numerous such examples in India to be proud of. EMC published a knowledge product on circular businesses two years ago, where we interviewed eight business leaders to get their stories. This product is available on our website, www.emcentre.com. I also wrote a book titled *"Practicing Circular Economy"* with CRC Press in 2021. This book has more than 100 case studies on the circular economy on a global scale and can be a one-stop resource for examples.

Neha: You have worked with various international organisations and governments on capacity building in environmental management. What fundamental principles or approaches do you employ to effectively enhance ecological management capabilities in different contexts?

I have been involved in capacity building over the last three decades in India and several countries. To me, capacity building for environmental management is a unique topic. The subject is complex and interdisciplinary and requires an understanding society, culture, and economics.

I do not depend on straight-jacketed PowerPoint presentations and focus more on the engagement process through case studies and group work. I would suggest that conducting a carefully designed field trip or a *yatra* could be impactful. A lot is learned outdoors with people and in the environment.

Most do not realise that capacity building is an adaptive process while a training program is just an event in the journey. Overall, my experience in capacity building for environmental management in India has been frustrating, with mixed feelings. I do often vent out my emotions through my blogs

(see https://prasadmodakblog.com/2017/07/30/the-black-hole-of-capacity-building-at-pollution control-boards-in-india/)

Neha: Your book on Environmental Impact Assessment (EIA) for Developing Countries has been widely acclaimed. What do you think of India's existing Environmental Impact Assessment (EIA) mechanisms?

In India, EIA is considered only a requirement for Environmental Clearance (EC). EIA as a *value add* to the project is never understood by project developers, regulators, investors, and consultants. The process of EC is often not ethical. My company EMC therefore, deliberately stayed away from EIAs associated with EC.

I have strong views on EIA in India and have published several blogs that you will find on my website http://prasadmodakblog.com. It is a pity that we have stayed only on project-level EIAs in India with no move towards regional/sectoral and strategic EIAs. EIAs of plans and policies have never been heard! But one thing is sure the EIA process in India has created a massive business for consultants!!

Neha: As the Environmental Management Centre (EMC) founder, you have positioned the company as a niche player in global environmental management consulting. Could you share your vision for establishing EMC and how you have maintained its unique position in the industry over the past 27 years?

I left my full-time teaching position at the Indian Institute of Technology, Bombay, to establish EMC. I was 40 years old then and wanted to do something different. I do not think making money or growing in turnover were the motives of EMC. EMC always remained a boutique consulting company and did not become a corporation. We began with a team of 3, and today all people counted; we are around 35. The company operates as a family. I have been very fussy in inducting people into our Team.

Setting the definition of growth when you set your organisation is essential. For a person like me who always wanted to be involved in multiple roles and enjoyed wearing different hats, EMC was another critical "experiment." However, EMC remained close to my heart, amongst other things I did. Soon, it became my identity. I always looked at Team EMC as if it was a master's class of students I used to teach at the Indian Institute of Technology. So, EMC's consulting work was by a Professor of Practice and the Team.

In 1996, I wrote EMC's mission as "Practicing Sustainability to the Advantage of All". Looking back now, I realise I had used sustainability much earlier. At that time, sustainability was not the buzzword it is (overly) used today. The mission statement emphasised that practising or mainstreaming sustainability can be wise to give an advantage to all. "To All" was an essential term in the mission statement, including even our competitors! You must think big to ensure healthy competition.

Over the past 25 years, EMC completed more than 700 assignments in India and worldwide. We worked with Governments, Corporates, Financing Institutions, Research bodies, and Community-based Organisations. The portfolio has been thus rich and diverse. "National roots with international experience" was perhaps the selling point of EMC. Most of the time, we were sole-sourced and enjoyed the support of "repeat clients." We could build long-term relationships, almost like an extended family.

Every assignment we worked on was unique and different. We could not possibly use a templated approach. I do not enjoy work when it becomes routine. So, each project was a discovery, delivered based on "evolving terms of references" (as both the client and consultant were learning). In this process, we came up with several "firsts". Due to my travels and multiple roles in the environmental profession, I could never get the bandwidth to publish all these innovations in our consulting practice. Innovations in consulting generally do not get published.

I plan to publish an "EMC Coffee Book" presenting the case studies built on EMC's assignments and experience. This Coffee Book will not be a marketing publication of EMC but more of an expression of expertise – sharing innovations to inspire young consultants, businesses, investors, and regulators.

Internship in the career matters. I conceived the "EMC Internship Program" in 2004. Internship at EMC is taken seriously with thorough mentoring. By now, more than 100 interns have benefited from being with EMC. Last year we conducted a tracer study on EMC interns, and the feedback was overwhelming. An internship at EMC is sought. We receive around 200 applications a year and accept only 4 to 5 interns after careful evaluation. Interns helped EMC by becoming "EMC Ambassadors". More importantly, the internship program created critical institutional linkages that EMC could leverage.

In the last 27 years, nearly 100 professionals moved out of EMC to further their careers. Some set up their independent businesses, drawing inspiration from the work at EMC; some took up advanced studies, and some relocated elsewhere in India and overseas. All these colleagues, whom we call "EMCians", are still connected. Today we operate a "What's App group" for EMCians. This is yet another example of an extended EMC Family. Sometimes I feel that our repeat client's network, EMCians What's App group, and EMC's Internship Program are the actual impact indicators of organisations like EMC.

In all our engagements, professional ethics has been the motto. We never compromised on quality and often went beyond the terms of reference. Our stubbornness and passion for doing something innovative were perhaps why we stood out and stayed so long on our journey. We always stayed ahead of the curve and hence *brand EMC*.

STUDENT'S CORNER

THE SILENT KILLER: CIGARETTE BUTTS

By Azra Ali

Master's in Convergent Journalism | AJK Mass Communication Research Centre, Jamia Millia Islamia (2021-2023) Delhi, June 12, 2023

Cigarette butts are made of thermoplastic which can take up to a decade to decompose, making them highly hazardous to marine life and the environment.

The World Health Organisation (WHO) says 4.5 trillion cigarette butts are discarded worldwide yearly. In India, approx. One hundred billion cigarettes are sold every year, accounting for approx. Two hundred seventy-four million cigarettes are sold every day. Cigarette filters, also known as butts or ends, make up the significant non-biodegradable littered waste worldwide, especially in urban areas.

While only a third of them make their way into the trash, the rest of them are casually flung out of the window or on the road, which ends up in streams, rivers, and oceans or in the soil where they take years to decompose. According to WHO, "tossing a cigarette butt on the ground" is one of the most accepted forms of littering.

While the side effects of smoking on one's health and environment are not hidden from anyone, very few people know about the harmful and toxic composition of these cigarette butts. A WHO report titled *"Tobacco and its environmental impact: an overview"* 2017 mentions the chemical composition of cigarette butts, constituting heavy metals and thermoplastics, which take years to decompose in nature and its hazardous impacts on the environment and humans.

Research done by the University of Gothenburg found that the microfibers and the chemicals that leak out of the filters in cigarette butts are toxic to aquatic larvae, of dragonflies, mosquitoes, and stoneflies. The research mentioned that cigarette filters can contain as many as 7,000 chemicals and microplastic fibres.

Not Made of Cotton but 'Plastic'

Cigarette butts are made of cellulose acetate plastic, which can take up to a decade to decompose. It is a kind of thermoplastic that looks like cotton but is slow to degrade. These butts also contain toxic chemicals which can persist in the environment beyond the life cycle of the butt itself. As per the WHO report, cigarette butts have 165 toxic chemicals.

Affecting Environment and Marine Life

Littered butts leach toxic emissions and release harmful chemicals like lead, zinc, arsenic, and cadmium into water and soil as they decompose, contributing to soil and water pollution and impacting wildlife habitats. A study in England proved that cigarette butts in soil inhibit plant growth.

A research study in the USA, published in 2011, tried to gauge the effects of cigarette butts on fish. Half of the fish died within four days of being placed in water where cigarette butts had been soaked and removed. Emeritus professor Thomas Novotny, who was also involved in the study, says cigarette butts "seep into the aquatic environment and are toxic and deadly to living creatures." Cigarette butts have also been found in the stomach of fish and marine life creatures. These chemicals could further end up in human bodies due to bioaccumulation of toxin build-up in the food chain.

The Indian Scenario

In 2020 the Indian Institute of Toxicology Research (IITR) came up with its reports, which stated that "95% of cigarette butts constitute cellulose acetate" and proved that cigarette butts take years to decompose. As per the findings of IITR, The National Green Tribunal (NGT) directed the Central Pollution Control Board (CPCB) to lay down guidelines about the disposal of beedis and cigarette butts.

In November 2022, the CPCB developed guidelines for the disposal of cigarettes and bidis butts. The guidelines recommended creating public awareness of the adverse impact of littering of cigarette butts. They also suggested that domestic workers segregate cigarette butts and dry waste. The guidelines also said that waste disposal should be either through recycling or processing waste

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to energy. Apart from this, instructions for adequately disposing of cigarette butts must be provided on each cigarette packet.

Way Forward

Ashish Kumar Chauhan, Deputy Programme Manager of Municipal Solid Waste from the Centre of Science and Environment, has been researching the problem of cigarette butt waste for a while. He suggested some steps to tackle the menace; he says local authorities should develop rules and regulations to protect the environment from non-biodegradable cigarette butt waste. He offers some initiatives the state can adopt, like implementing a consumer-funded advanced recycling fee or waste fee for cigarettes at the point of purchase. He suggests that these fees are intended to pay for collecting, recycling, and properly disposing of cigarette butts.

It is imperative to ensure that most littered items (cigarette butts/ filters) on the planet find their way to the waste bin or are sent to a recycling facility, said Ashish Kumar Chauhan. He added that smokers should consider finding designated smoking areas or carrying their own "pocket ashtrays" to collect their waste.

Another approach could be producer responsibility. New legislations have come up in California, the US, to ban products with single-use filters forcing manufacturers to take responsibility for the environmental impacts of their products.

Citizens joining hands

Several individuals have devised initiatives and movements to tackle the most littered waste of cigarette butts. *Butt Rush* by Nirit Dutta conduct a series of 24-hour marathons in different cities of India where the volunteers manually collect the butts and recycle them further. Datta, a wildlife enthusiast and IT professional says, "The solution lies not only in recycling but in spreading awareness." He says the second most crucial solution is placing cigarette bins at the smoking hotspots. He reiterated that to make people throw cigarette filters in the bin, and they need to be made aware of the harmful effects of the filters on the environment and human lives. And lastly, efficient recycling of these butts is pivotal.

In 2018, two brothers, Naman and Vipul Gupta, started *Code Effort,* where they upcycle cigarette butts and make different things such as home decor items, soft toys, accessories, artefacts, sculptors, etc. College startups like *Enactus* have also been collecting and recycling cigarette butts.

RESOURCES

PUBLICATIONS

UNWRAPPING THE TRUTH: Review of Endocrine Disruptors in Food Packaging Materials

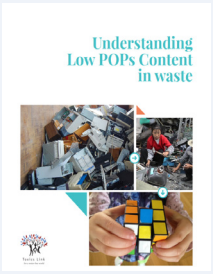
The new report highlights the presence of Endocrine Disrupting Chemicals (EDCs) in food packaging materials. This report has been prepared based on the most published research studies and data from India and globally. Moreover, the study has pointed out the gaps and challenges in managing EDCs in packaging materials and the critical need to address these chemicals at the upstream and downstream levels considering the recycling potential of food packaging materials and the growing thrust on the circular economy. The study has also discussed the alternative available to replace these EDCs.

Factsheet on ROTTERDAM CONVENTION AN OVERVIEW

The Rotterdam Convention on Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade is a multilateral agreement to protect human health and the environment from potentially harmful chemicals. The Convention promotes shared responsibility, informed decision-making, and cooperation between importing and exporting countries. This factsheet provides an overview of the Convention, its objectives, the misunderstandings that lead to counties resisting the addition of new chemicals, and the implications of these misunderstandings.

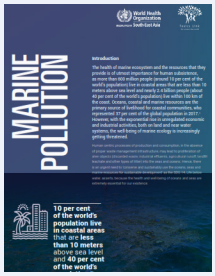
Factsheet on Understanding Low POPs Content in Waste

The factsheet highlights the POPs waste and low POPs content level in wastes. There are set provisional Low POPs Content Levels for POPs already listed



under Stockholm Convention for a longer time. Some of these "provisional" levels are unsafe and do not meet requirements to protect health and the environment. The fact sheet discusses this issue from an Indian perspective and the need for stringent regulation for POPs waste as they cannot be landfilled, reused, or recycled because POPs content in that waste would also be recycled and thus would not stop this chemical pollution from entering the environment.

Factsheet on Marine Pollution



Human-centric processes of production and consumption, without proper waste management infrastructure, may lead to the proliferation of alien objects (discarded waste, industrial effluents, agricultural runoff, landfill leachate, and other types of litter) into the seas and oceans. Hence, there is an urgent need to 'conserve and sustainably use the oceans, seas and marine resources for sustainable development' as SDG 14, Life below water, asserts, because oceans and seas' health and well-being are essential for our existence.

Factsheet on Microplastics in the South East Asia Region

WHO South-East Asia (SEAR), one of the six WHO Regions, consists of Bangladesh, Bhutan, the Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor-Leste and is home to 2069 million people, that is over a quarter of the world's population. The Region is prone to natural disasters and health risks of climate change; thus, sustainable development becomes critical. Together, the countries in the region account for a total coastline of 73,907 km, almost 12% of the global coast. Many of these countries have a long history of using the oceans for socio-economic subsistence. However, oceans in this region and elsewhere in the world are under immense threat due to the negative externalities of anthropogenic measures like dumping waste into the oceans, general littering, and other pathways through which different pollutants, like plastics, enter the marine environment.

Factsheet on Microplastics and Human Health

Fragmented particles of plastics that are smaller than 5 millimetres (<5mm) are called microplastics. These microplastics pollute terrestrial and aquatic ecosystems as they have been found in soils, surface waters, lagoons, estuaries, coastal shorelines, regions of the sea, Arctic freshwater, ice, and the ocean. Their bioaccumulation at various levels of the food chain is becoming increasingly evident. From the bottom of the marine food chain, including phytoplankton and zooplankton, all types of shellfish and fish are contaminated by microplastics.

Factsheet on Microplastics

With the continued increase in plastic production and consumption, plastic pollution has become an all-pervasive phenomenon affecting every type of ecosystem, whether terrestrial, freshwater, or marine. The plastic waste, upon entering the environment, does not decompose or biodegrade, they persist and fragment into continually smaller particles. Such particles of plastics that are smaller than 5 millimetres (< 5mm) are what we call microplastics. These microplastics get released into the environment owing to anthropogenic measures of plastic production, consumption, and disposal.

News

1. Coca-Cola India and Zepto expand collaboration for the Return and Recycle initiative.

Coca-Cola India and Zepto have recently announced the expansion of their collaboration in India to reinforce their commitment to plastic circularity. The 'Return and Recycle' initiative was launched in November 2022 as a pilot project in select locations of Mumbai. The industry established an organised process of collecting PET bottles with 100% traceability to ensure effective plastic waste management. The company informed us that about 100kgs of PET bottles were collected and recycled as a part of the 60-day pilot project.

https://www.financialexpress.com/business/brandwagon-coca-cola-india-and-zepto-expand-collaboration-for-the-return-and-recycle-initiative-3089638/

Source: Financial Express, New Delhi, May 16, 2023

2. NGT directs the monitoring committee, CPCB, and DPCC to look into the city's 'illegal' dyeing factories

The National Green Tribunal has directed the Supreme Court-appointed monitoring committee, the CPCB, and the DPCC to investigate illegal dyeing units in the national capital.

The tribunal also directed the Central Pollution Control Board (CPCB) and the Delhi Pollution Control Committee (DPCC) to jointly file an action taken report on the compliance status regarding the units named in the application.

https://www.millenniumpost.in/delhi/ngt-directs-monitoring-committee-cpcb-and-dpcc-to-look-into-citys-illegal-dyeing-factories-520214

Source: Millenium Post, New Delhi, May 28, 2023

3. Act now, or the Earth will choke on plastic

The world now produces 460 million tonnes of plastic annually – double what it did 20 years ago – and at the current rate, plastic production will triple by 2060. That's because affordable, durable, and flexible plastic is in everything from packaging to clothes and beauty products.

http://timesofindia.indiatimes.com/articleshow/100751964.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Source: The Times of India, New Delhi, June 05, 2023

4. Delhi govt ramps up patrolling to cut waste dumping at Ridge

The Delhi Forest and wildlife department has informed the National Green Tribunal (NGT) that it will increase patrols in the Southern Ridge forest adjacent to Chhatarpur following a recent inspection that found waste being dumped within the forest area. In a submission, the department said the municipal solid waste was duly lifted, with forest guards asked to ensure waste is no longer dumped or burnt in the Ridge, it said.

https://www.hindustantimes.com/cities/delhi-news/delhi-govt-ramps-up-patrolling-to-cut-waste-dumping-at-ridge-101686680960902.html

Source: Hindustan Times, New Delhi, June 13, 2023

5. BIS introduces standards for agricultural by-product utensils intending to cut plastic pollution, promote sustainability

The Bureau of Indian Standards (BIS) has issued standards for agricultural by-product utensils to reduce plastic pollution and promote sustainability. The published standard IS 18267: 2023, "Food Serving Utensils Made from Agri By-Products – Specification", provides comprehensive guidelines to manufacturers and consumers to ensure uniformity in quality requirements nationwide.

https://www.cnbctv18.com/environment/bis-introduces-standards-for-agricultural-by-product-utensils-with-sustainability-msme-17012811.htm

Source: CNBC TV18, New Delhi, June 22, 2023

6. Microfibre-free laundry: Multifaceted approach needed to combat these tiny shreds of pollutants

India's journey towards achieving sustainable development goals (SDG) by 2030 will be unfulfilled until it can address the issue of one of the significant microplastic contributors to the marine environment: Microfibres. When we launder clothes in washing machines, tiny pieces get shredded. These invisible thread-like pieces of size, usually less than 5 mm, are called microfibres. They come from all types of clothes; synthetic, natural, and semi-synthetic.

https://www.downtoearth.org.in/blog/pollution/microfibre-free-laundry-multifaceted-approach-needed-to-combat-these-tiny-shreds-of-pollutants-90564

Source: DownToEarth, New Delhi, July 12, 2023

7. Recycled Plastic Is More Toxic Than Original Parts, Can Lead To Microplastic Pollution, Greenpeace Warns: Report

Amsterdam-based independent global campaigning network Greenpeace has warned that recycled plastic is more toxic than the original components, contributes significantly to microplastic pollution, and is not a solution to environmental pollution. The Guardian reported that Greenpeace issued the warning in a report ahead of the network's latest round of negotiations for an international plastics treaty. The report by Greenpeace mentioned the findings of different studies that show recycled plastics are more toxic than their original parts. The Greenpeace report said that plastics are "inherently incompatible with a circular economy", according to the Guardian report. Research has also shown that breaking down plastics for recycling introduces microplastics to the environment.

https://news.abplive.com/science/recycled-plastic-more-toxic-than-original-parts-can-lead-to-microplastic-pollution-not-a-solution-to-pollution-greenpeace-warns-report-1604482

Source: ABP News Bureau, May 25, 2023

8. India: How is climate change impacting menstrual health?

When Super Cyclone Amphan hit India's coast in 2020, 28-year-old Suchita Jana and her family moved to a government shelter where she found herself among the 800-odd people taking refuge at the camp. While she stayed at the cramped school-turned-shelter for only 20 days, her ordeal lasted for months. After the cyclone, Jana discovered she had developed a vaginal infection. "The infection lasted for 6-7 months. I had a severe burning sensation and a strong odor which was very uncomfortable to bear," said Jana, a resident of Khetri Mohanpur village in the Pathar Pratima block of 24 South Paraganas district, which lies along the coast of India's West Bengal state.

https://www.hindustantimes.com/lifestyle/health/india-how-is-climate-change-impacting-menstrual-health-101685366626186.html

Source: Hindustan Times, May 30, 2023

9. Earth system boundaries: '7 out of 8 climate red lines have already been crossed

Seven of eight earth system boundaries (ESBs) that are critical for the stability of the planet's health and survival of species have already been crossed, a new research paper by the Earth Commission published in Nature Journal flagged on Wednesday, suggesting that the very future of humanity may now be at risk from the climate crisis. Transgression of ESBs is spatially widespread, with two or more ESBs already transgressed for 52% of the world's land surface, affecting 86% of the global population, the paper said. India, along with other parts of South Asia, Europe, and parts of Africa is an ESB transgression hotspot according to a map provided by researchers with the Himalayan foothills experiencing at least 5 ESB transgressions, the analysis indicated.

https://www.msn.com/en-in/news/newsindia/earth-system-boundaries-7-out-of-8-climate-red-lines-have-already-been-crossed/ar-AA1bWW3g?li=AAgfYGb

Source: MSN, New Delhi, June 2, 2023

10. Around 240 tonnes of plastic waste gets dumped in India's national capital every day, says report

India's national capital New Delhi, currently generates more than 1,100 tonnes of plastic waste every day, but only around 870 tonnes per day (TPD) is being managed or recycled, which leaves a gap of 242 TPD or around 22 percent of the plastic waste load of Delhi, which finally either reaches the drains or ends up in landfills or contaminates the River Yamuna, as per the latest data. A target of June 2024 has been set by the national capital to bridge this gap completely. Experts stated that officials may have to work much harder, especially considering that it was not able to implement the ban on 19 single-use plastic (SUP) items successfully.

https://www.wionews.com/india-news/240-tonnes-of-plastic-waste-gets-dumped-in-indias-national-capital-every-day-says-report-600876

Source: Wions.com, June 05, 2023

11. 'Discharge Of Pollution In Yamuna, Failure To Implement Directions Is Lack Of Governance': National Green Tribunal

The principal bench of the National Green Tribunal has observed, after perusing the status report submitted by the Delhi Government before it, that untreated and partially treated sewage and industrial waste are entering Delhi's Yamuna. While noting that the large-scale pollution is still unchecked, it said that the overall situation is "extremely disappointing." "Discharge of pollution in the river and failure to implement repeated directions for coercive against violators, including officers responsible for failure to prevent pollution, is practically lack of governance with no remedy to the suffering citizens, in spite of guaranteed constitutional right," said Justice Adarsh Kumar Goel, Justice Sudhir Agarwal, Dr. A. Senthil Vel.

https://www.livelaw.in/environment/national-green-tribunal-delhi-yamuna-pollution-sewage-treatment-232284

Source: livelaw.in, July 11, 2023

12. India's first-ever sanitary waste processing unit to begin in Pune in August

The Pune Municipal Corporation's Solid Waste Management (SWM) Department is going to be India's first municipal body to start an integrated sanitary waste processing unit in Pune. Speaking to Pune Pulse, Rajendra Tidke, Joint Engineer, PMC Solid Waste Management said, "The processing unit has been funded entirely by a company called Procter & Gamble at Rochem Separations Systems Pvt Ltd at Hadapsar on the allotted land to the PMC. Because of the increasing issue of sanitary waste disposal in India, the PMC has decided to start this unit." Tidke further informed that the Maharashtra Pollution Control Board (MPCB) has requested the PMC to contact the Central Pollution Control Board (CPCB) to make the plant operational. The endorsement will be given by CPCB after the evaluation of the plant. The machinery & other resources have been made for the processing unit and it is sourced from Italy. The capacity of the processing unit is going to be around 4 to 4.5 metric tonnes of sanitary waste every day.

https://www.mypunepulse.com/indias-first-ever-sanitary-waste-processing-unit-to-begin-in-pune-in-august/

Source: mypunepluse.com July 17, 2023

ABOUT TOXICS DISPATCH

Toxics Dispatch was started in 1998 with the primary objective of creating awareness about environmental pollution related to the management of waste and hazardous chemicals and their impact on the environment and public health.

Toxics Dispatch was born out of the need to reach out to various stakeholders, including government officials, judiciary, youth, and the general public, to sensitise them about the extent of toxic pollutants and their damaging effects on the environment.

Since its inception, Toxics Dispatch has highlighted pressing issues of hazardous, biomedical, municipal solid waste, e-waste, international waste trade, and the emerging issues of pesticides and Persistent Organic Pollutants (POPs). The newsletter aims to disseminate information to help strengthen the campaigns against toxic pollution, provide cleaner alternatives, and bring together groups and people affected by this menace.

Toxics Dispatch comes out thrice a year and is available online and in print. You can subscribe to it by writing to info@toxicslink.org.

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Toxics Link
E-224, First Floor,
East of Kailash
New Delhi - 110065, India
Tel: 91-11-24328006, 24320711
Fax: 91-11-24321747
E: info@toxicslink.org

www.toxicslink.org