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INSTITUTE OF ENVIRONMENTAL PROFESSIONALS SRI LANKA

Incorporated by the Act of Parliament No. 01 of 2020, as the premier organization for Environmental Professionals in Sri Lanka



Picture: Mr. Premalal Kehelella delivering keynote remarks at the IEPSL corporate dialog: Preparing for the upcoming El-nino

IEPSL HOSTS CORPORATE DIALOGUE ON PREPARING SRI LANKA FOR THE UPCOMING EL NIÑO

THINK BEFORE YOU PURCHASE: THE POWER OF RESPONSIBLE CHOICES

THE ROLE OF CITIZEN SCIENCE IN TACKLING GLOBAL ENVIRONMENTAL CHALLENGES

FROM WASTE TO WEALTH: HOW AI IS TURNING WASTEWATER INTO A RESOURCE

ABOUT

The Institute of Environmental Professionals Sri Lanka (IEPSL) was established in 2006 following Cabinet Paper No. 06/1365/221/026 and was subsequently incorporated by the Act of Parliament No. 01 of 2020. As Sri Lanka's premier professional body for environmental professionals, IEPSL is dedicated to upholding the dignity, integrity, and reputation of the environmental profession. IEPSL provides professional leadership through capacity building, knowledge sharing, technical guidance, and promoting Chartered Environmental Professionals among environmental practitioners. Committed to excellence and ethical practice, the Institute strives to strengthen environmental professionalism and extend its expertise.

Vision

To be a vibrant body of outstanding environmental professionals contributing effectively to the advancement of the field of environment and for resolution of environmental problems confronting the modern society.

Mission

To protect the dignity and recognition of the profession through education, research and application of scientific knowledge while contributing to maintain high standards in the practice of environmental management.

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HELLO COMRADES



The third quarter of the year has been a meaningful period for IEPSL, marked by our continued commitment to advancing climate resilience, environmental sustainability, and professional capacity building. Through focused engagements on climate change, the El Niño phenomenon, and climate-resilient development, we have sought to strengthen awareness, encourage informed dialogue, and promote practical, evidence-based solutions to emerging environmental challenges.

As environmental professionals, we have both a responsibility and an opportunity to lead positive change. Let us continue to translate knowledge into action

Best wishes,

Asela Iddawela

President

Think Before You Purchase: The Power of Responsible Choices

Every day, we make choices about what we buy, from food and clothing to household products and electronic equipment. While we often consider price, appearance, and convenience, our purchasing decisions can also have a significant impact on the environment. Responsible purchasing means thinking carefully before buying a product and considering its environmental and social impacts. By making better choices, we can reduce waste, conserve natural resources, and contribute to a healthier environment for future generations.

One of the first questions we should ask ourselves is, "Do I really need this product?" Many products are purchased on impulse and later become waste. Reducing unnecessary consumption is the most effective way to reduce waste generation. Before buying something, it is important to consider whether it is truly necessary or if an existing item can continue to be used.

When purchasing a product, durability is an important factor to consider. Durable products last longer and do not need to be replaced frequently.

Although a durable product may sometimes cost more initially, it often saves money in the long run and reduces waste generation. For example, a high quality reusable water bottle can be used for years instead of purchasing many single-use plastic bottles.

The materials used to manufacture a product also matter. Some materials have a lower environmental impact than others. Products made from recycled materials, natural materials, or sustainably sourced materials are generally better choices. On the other hand, products made from excessive materials that are difficult to recycle may contribute to environmental pollution.

Another important consideration is the origin of the product. Purchasing locally produced goods can help reduce transportation-related emissions and support local businesses and communities. Locally produced products often require less packaging and travel shorter distances before reaching consumers.

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Responsible consumers should also think about the supply chain of a product. A supply chain includes all the stages involved in producing and delivering a product, from obtaining raw materials to manufacturing, packaging, transportation, and sale. Companies that follow ethical and environmentally responsible practices throughout their supply chains contribute to sustainability.

Recyclability is another important factor. Products that can be easily recycled help reduce the amount of waste sent to landfills. Before purchasing a product, it is useful to check whether its packaging or components can be recycled through existing waste management systems. Repairability is becoming increasingly important in a world where many products are discarded after minor damage. Products that can be easily repaired can remain in use for longer periods. Repairing an item is often cheaper and more environmentally friendly than replacing it with a new one.

Eco-design is another concept that supports responsible purchasing. Eco-designed products are developed with environmental considerations in mind. They often use fewer materials, generate less waste, consume less energy, and are easier to repair or recycle. Consumers can support sustainable production by choosing products that incorporate eco-design principles.

Making environmentally friendly purchasing decisions does not require perfection. It simply requires awareness and a willingness to think before buying. Every purchase sends a message to manufacturers about the type of products consumers value. When more people choose environmentally responsible products, businesses are encouraged to adopt more sustainable practices.

A purchase may take only a few seconds, but its environmental impact can last for years. This is where a proper, transparent, and credible eco-labelling scheme can play an important role. Eco-labels can help consumers quickly identify products that meet recognized environmental criteria, making it easier for environmentally conscious consumers to make responsible choices without having to investigate every product themselves. For an eco-label to be meaningful, however, it should consider the entire life cycle of a product, from the extraction of raw materials and manufacturing to transportation, use, and final disposal. A product may appear environmentally friendly at first glance, but its production, use, or disposal may still have significant environmental impacts. A life-cycle approach therefore helps ensure that eco-labels are based on a more complete and accurate assessment of environmental performance.

Our vision for the future is to establish a transparent, credible, and scientifically sound eco-labelling framework in Sri Lanka that provides consumers with clear and reliable information and makes responsible purchasing easier. Such a system can empower consumers to make better choices while encouraging businesses to improve the environmental performance of their products.

The next time you are about to make a purchase, pause before you pay. Choose quality over quantity, durability over disposability, and products that are better for people and the planet. Remember, every purchase is a choice, and every choice has an impact.





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The Role of Citizen Science in Tackling Global Environmental Challenges

Decentralised and multilevel governance, involving diverse societal actors, is becoming increasingly important for addressing vulnerabilities arising from climate change. Within these approaches, Citizen science has emerged as a participatory form of scientific inquiry in which citizens contribute to different stages of the research process, including data collection, environmental monitoring, and knowledge development. Through this involvement, communities become active contributors to both scientific research and evidence-based policy.

Citizen Science commonly involves volunteer participation, systematic data generation, and engagement with locally relevant socio-environmental issues. Its benefits include expanding the availability of scientific information, incorporating local knowledge and priorities, encouraging environmentally responsible behaviour, and strengthening public understanding and trust in science. These approaches can therefore support more inclusive and sustainable forms of environmental governance (Albagli and Iwama, 2022, Freschi et al., 2024).



Figure 01: From community observations to scientific knowledge: Citizen Science in action

Success Stories from Worldwide

Successful Citizen Science networks demonstrate how digital platforms can connect communities, researchers, and policymakers to generate large-scale environmental information. iNaturalist (iNaturalist, 2026) is a prominent global biodiversity platform that enables citizens to photograph and record plants, animals, fungi, and other organisms. These observations are contributed by users worldwide and can be validated through community and expert participation, creating valuable datasets for biodiversity research, conservation, and environmental monitoring.

Similarly, eBird, developed by the Cornell Lab of Ornithology (Cornell Lab of Ornithology, n.d.), engages birdwatchers in over 200 countries to document bird sightings and distributions systematically. Its extensive and continuously expanding database supports biodiversity research, species monitoring, and conservation planning. Beyond data collection, eBird empowers citizens to contribute actively to scientific knowledge and environmental decision-making, demonstrating the potential of citizen science to broaden public participation and strengthen the scope and impact of scientific research.

Citizen Science in Wetland Restoration

Wetlands provide essential ecosystem services, including biodiversity conservation, carbon storage, and flood regulation, yet their continued degradation highlights the need for effective restoration and monitoring. A global assessment of 120 restoration sites found that citizen science was incorporated into fewer than 20% of projects. Advances in low-cost sensors, remote sensing, and mobile technologies offer new opportunities for community-based monitoring. Integrating citizen-generated data can enhance ecological assessments, support adaptive restoration, reduce monitoring costs, and strengthen public engagement, contributing to more inclusive and sustainable wetland restoration (Cui et al., 2026).

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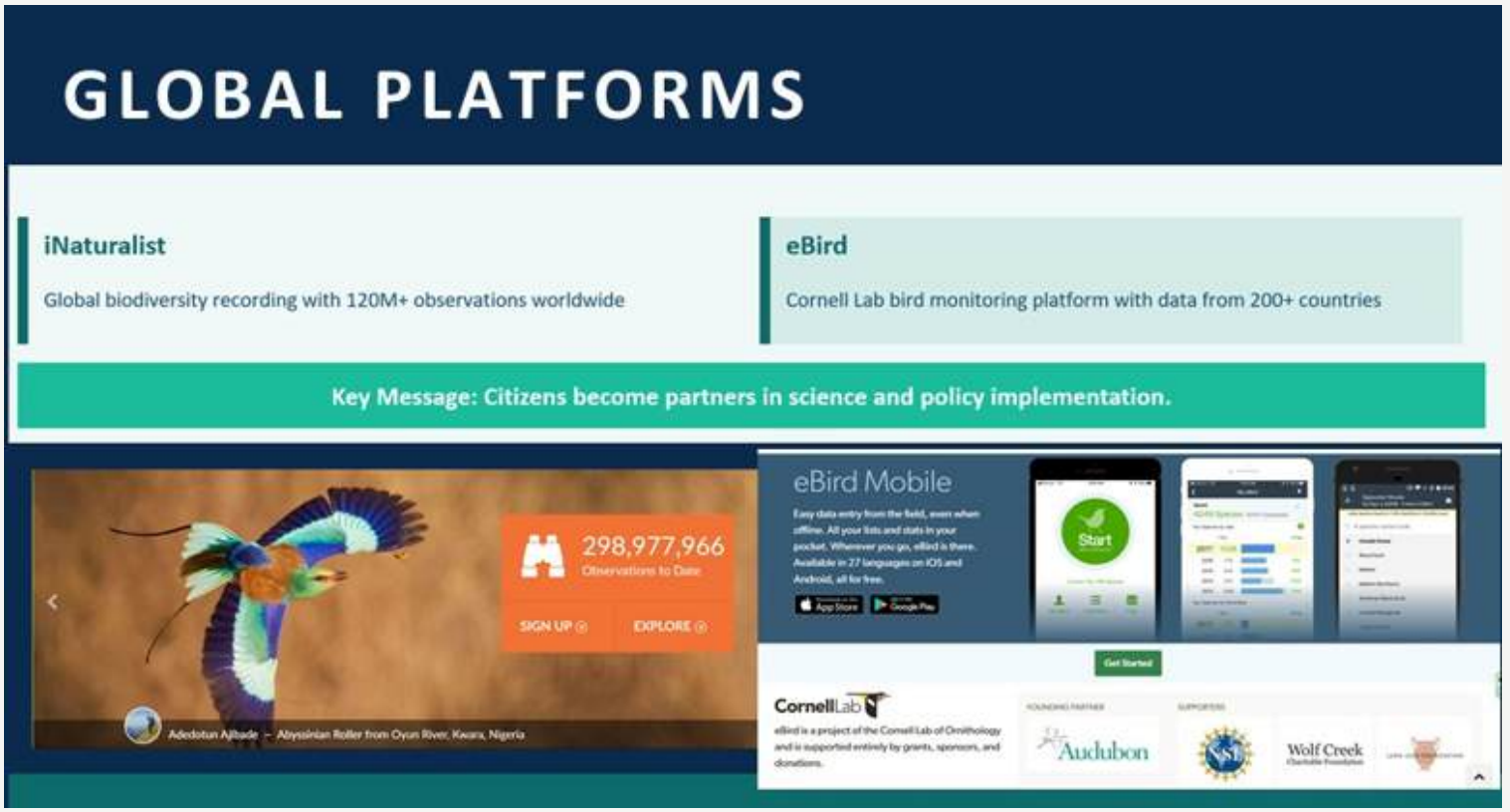


Figure 2: Global success stories in Citizen Science

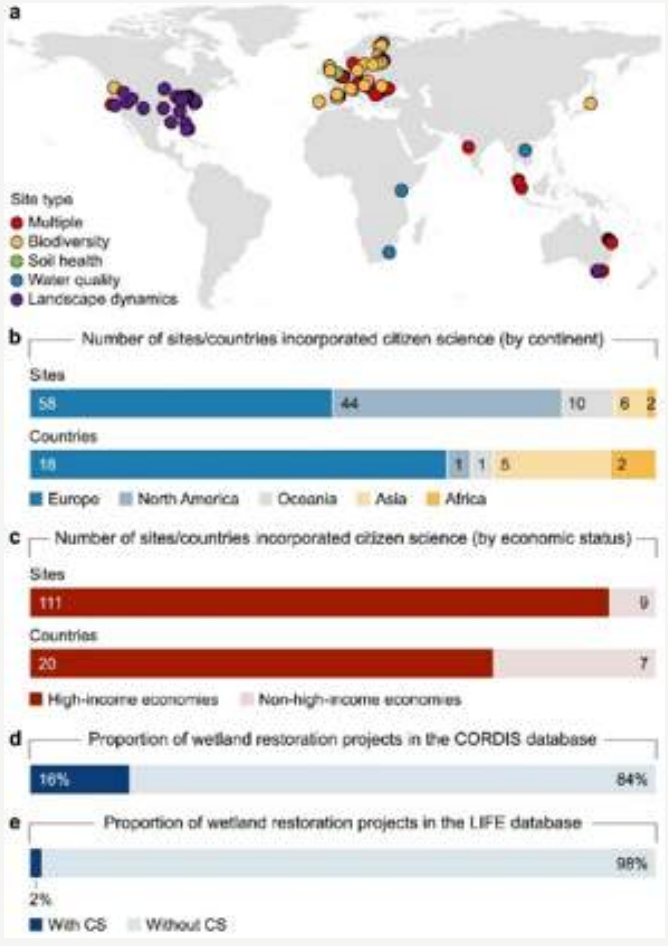


Figure 3 depicts a global overview of wetland restoration projects that use citizen science for ecological monitoring (n = 120). Together, these findings demonstrate the current global reach of citizen science in wetland restoration and highlight opportunities to expand community-based environmental monitoring.

Figure 3: Geographic and institutional distribution of wetland restoration projects involving Citizen Science (Cui et al., 2026).

(a) shows the geographic distribution of sites and their main monitoring themes, including water quality, biodiversity, soil health, and landscape changes.

(b) compares participating countries and sites across continents, while

(c) highlights differences between high-income and other economies.

(d) and (e) show the proportion of restoration projects incorporating citizen science within the different databases, respectively.

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Harnessing Foresters' Engagement for Climate Change Adaptation

Citizen Science is evolving beyond simple, short-term data collection to involve participants in complex ecological experiments. The My Garden of Trees initiative demonstrates this emerging "next-generation citizen science" approach, engaging more than 300 foresters across Europe in a five-year experiment to evaluate how different seed origins perform under changing climatic conditions (Bison et al., 2026). Figure 4 depicts how participants contributed their professional knowledge, conducted field experiments, and collaborated with researchers to develop tools for selecting suitable tree species and provenances for climate adaptation. The project demonstrates how specialized citizen expertise can expand the scale of ecological research while generating robust, practical evidence for climate-resilient forest management.

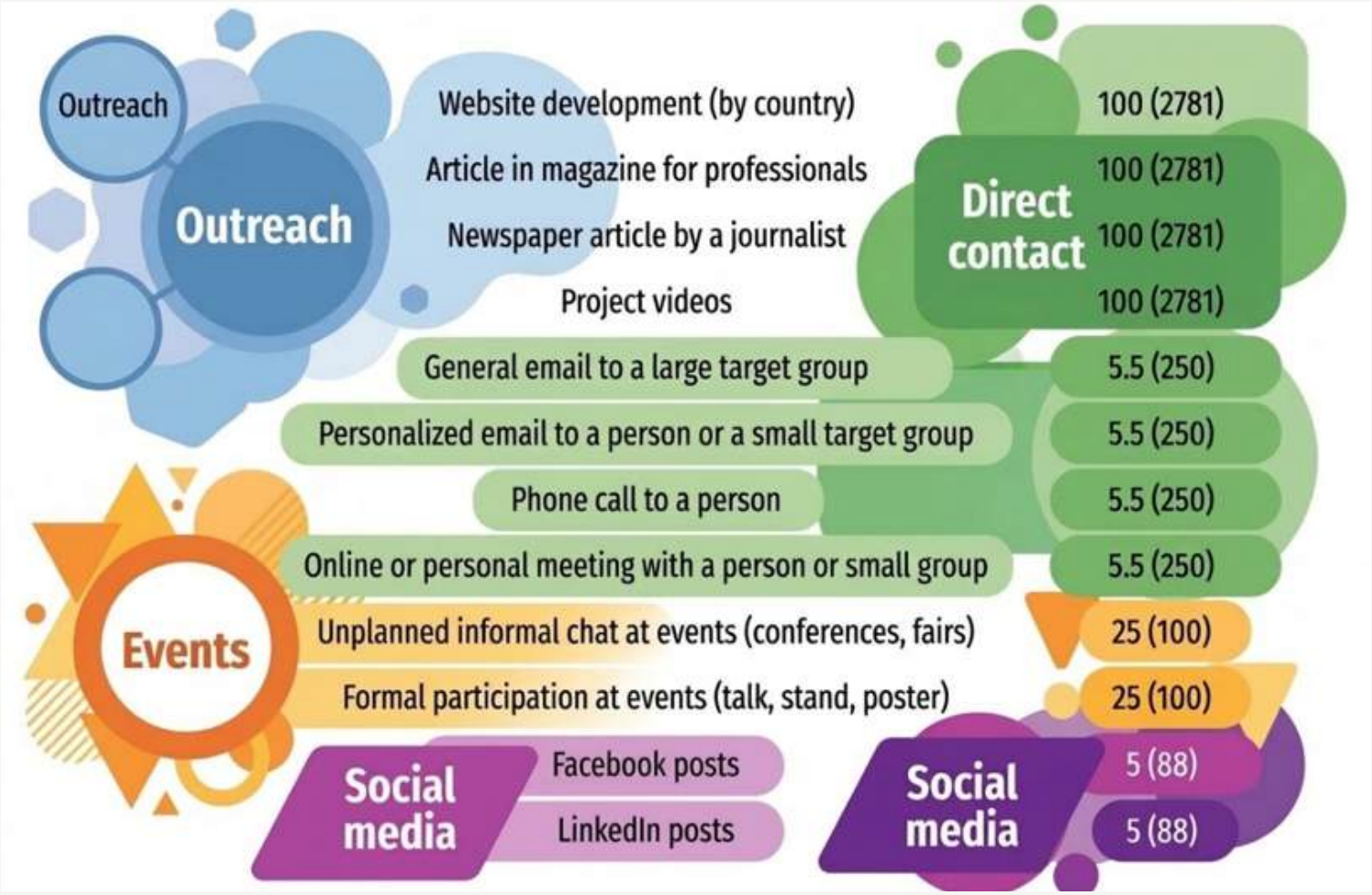


Figure 4: Four key recruitment approaches used across 20 European countries, highlighting outreach methods and audience reach through local networks, events, websites, and social media (Bison et al., 2026)

Why Citizen Science Matters for Sri Lanka?

Sri Lanka is increasingly confronted with a range of environmental pressures, including climate-related hazards, deterioration of marine and coastal ecosystems, and persistent challenges associated with solid waste management. Addressing these issues effectively requires more than institutional and governmental interventions; meaningful and continuous involvement of local communities is equally important.

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Citizen Science provides an effective mechanism for engaging the public in environmental observation and data collection while simultaneously strengthening environmental knowledge, community ownership, and participation in decision-making processes. Adapting successful international models to local needs could therefore strengthen environmental awareness, community participation, scientific knowledge, and evidence-based sustainability planning across Sri Lanka.

Currently, the Ministry of Science and Technology has launched an initiative in this regard while deploying Vidatha Centers located in the country, which is commendable. Citizen Science approach can contribute to issues namely climate-related monitoring through a range of locally based activities, including:

- Recording and reporting extreme weather events and their impacts at the community level.
- Observing changes associated with climate variability in agricultural systems, water availability, biodiversity, and household livelihoods.
- Recording traditional and locally developed adaptation measures, including nature-based approaches for reducing climate-related risks.
- Conducting community awareness programmes on climate change mitigation, adaptation, preparedness, and resilience.

Citizen science can play a significant role in addressing municipal solid waste management challenges in Sri Lanka, including inadequate waste collection, improper disposal, limited recycling facilities, and localized waste accumulation. Community-generated data can help identify pollution hotspots, improve waste management planning, and provide detailed local observations that complement existing environmental and climate monitoring systems. These datasets can also support national climate reporting, contribute to the implementation and monitoring of Sri Lanka's Nationally Determined Contributions (NDCs), and strengthen climate vulnerability and resilience assessments at provincial, district, and community levels.

Another example that can be highlighted through the protection of marine and coastal environments which are of particular importance to Sri Lanka as an island nation. These ecosystems support fisheries, tourism, food security, employment, and numerous other economic and social activities. However, increasing pollution, habitat degradation, biodiversity loss, coastal erosion, and other human-induced pressures threaten their long-term sustainability. Citizen Science activities under marine and coastal protection may include:

- Conducting systematic assessments of plastic and other forms of coastal pollution, including beach-cleaning activities supported by standardized recording procedures.
- Observing and documenting marine biodiversity, including fish populations, coral reef condition, and sightings of marine mammals, turtles, and other large marine species.
- Recording changes in shoreline conditions, coastal erosion, sea-level-related impacts, and consequences for coastal settlements and livelihoods.
- Undertaking basic water-quality observations in lagoons, estuaries, and selected nearshore environments.
- Promoting community awareness and participation in sustainable fisheries, responsible resource use, and marine conservation.

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Citizen Science can provide a practical mechanism for identifying local waste-management problems while encouraging communities to participate in their resolution. Potential activities of the Citizen Science engagement can include:

- Conducting community-level waste audits to determine the types, quantities, and patterns of waste generated in different localities.
- Mapping and monitoring waste-collection services, disposal practices, and locations affected by unauthorized dumping.
- Identifying and periodically documenting plastic accumulation sites in urban, rural, terrestrial, and freshwater environments.
- Monitoring local initiatives related to waste minimization, reuse, recycling, and resource recovery.
- Conducting community education programmes on waste separation at source, sustainable consumption, resource efficiency, and circular-economy concepts.

Overall, citizen science can serve as an effective interface between communities and government, transforming local environmental observations into credible evidence for environmental monitoring and policy development in Sri Lanka. Beyond enhancing environmental literacy and community stewardship, its success depends on clear institutional governance, stakeholder collaboration, standardized data collection protocols, and ethical safeguards. Integrating citizen-generated data into national environmental databases can strengthen monitoring systems, support evidence-based policymaking, and contribute to sustainable environmental management.

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IEPSL Events



IEPSL Hosts Corporate Dialogue on Preparing Sri Lanka for the Upcoming El Niño

The IEPSL successfully organized a corporate dialogue titled “Preparing for the Upcoming El Niño: Strengthening Business Resilience and Climate Preparedness in Sri Lanka” on 3 September 2026 at The Grand Maitland, Colombo 7. The event aimed to help Sri Lankan organizations understand emerging climate-related risks and strengthen their preparedness for the potential effects of El Niño. The dialogue brought together corporate representatives and environmental experts to examine how changing climate conditions could affect business operations, agriculture, water resources, and food security.

It also explored practical approaches organizations can adopt to improve resilience and manage climate-related uncertainties. The initiative reflects IEPSL’s focus on strengthening environmental awareness and encouraging businesses to integrate climate resilience into corporate decision-making.

Live Stream: Click Here

Understanding El Niño and Its Implications for Sri Lanka

El Niño is a major climate phenomenon associated with changes in ocean temperatures and atmospheric circulation in the tropical Pacific Ocean. Its influence can extend well beyond the Pacific, affecting rainfall patterns, temperature, agriculture, water resources and the frequency and intensity of certain climate-related risks in different regions. Recognizing the potential implications of El Niño for Sri Lanka, IEPSL convened the dialogue as a platform for bringing scientific knowledge and professional expertise into conversation with the needs of businesses and public institutions.

The programme featured Mr. Sarath Premalal Kehelella, Drought Prediction Expert, Food and Agriculture Organization (FAO) and former Director General of the Meteorology Department, as the Keynote Speaker. His contribution provided valuable insights into climate variability, El Niño-related risks and the importance of strengthening preparedness based on reliable climate information.

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Multi-Stakeholder Expert Panel

A key component of the event was an expert panel discussion that examined the potential impacts of El Niño from multiple perspectives.
The panel comprised:

- Prof. Buddhi Marambe, Senior Professor, University of Peradeniya – Moderator
- Mr. K.R.R. Uduwawala, Secretary, Ministry of Environment
- Dr. W.A.R.T. Wickramarachchi, Director General, Department of Agriculture
- Mr. Ajith Wijemannage, Director General, Department of Meteorology
- Mr. Randeewa Malasooriya, CEO, CBL's Natural Foods Cluster and Vice President of IEPSL
- Mr. Rohan Cooray, Climate Risk Analyst

The diverse composition of the panel enabled the discussion to move beyond climate science and address its implications for agriculture, water resources, food security, business continuity, climate risk management and national preparedness.

Strengthening Business Climate Resilience

A major focus of the dialogue was the need for organizations to move from reactive disaster response towards proactive climate risk management. Businesses increasingly need to understand how climate variability can affect supply chains, production, water availability, agricultural inputs, infrastructure, markets and workforce productivity.

The dialogue emphasized the importance of integrating climate information into organizational decision-making, risk assessments and business continuity planning. Collaboration among government institutions, private-sector organizations, professional bodies, researchers and climate experts was identified as an important pathway for improving Sri Lanka's capacity to anticipate and respond to climate-related risks.

The programme also provided an opportunity for corporate and professional representatives to engage directly with experts and policymakers, creating a platform for knowledge exchange and discussion on practical approaches to climate preparedness.







As Sri Lanka continues to face increasing climate variability, initiatives such as this dialogue demonstrate the importance of anticipatory action, science-based decision-making and cross-sector collaboration. The IEPSL Corporate Dialogue on El Niño therefore served not only as a platform for discussing an immediate climate concern, but also as a broader call for organizations to strengthen their preparedness for a changing climate.

Through informed professionals, stronger institutions and collaborative action, Sri Lanka can build greater resilience to climate risks and safeguard its economic, environmental and social wellbeing.

IEPSL Events



IEPSL Capacity-Building Programme on ESG and Sustainability Reporting

From Fundamentals to Practice: Mastering ESG and Sustainability Reporting under SLFRS S1 & S2

The Institute of Environmental Professionals Sri Lanka (IEPSL) successfully conducted a professional capacity-building programme titled “From Fundamentals to Practice: Mastering ESG and Sustainability Reporting under SLFRS S1 & S2” on 09 September 2026 at GAP HQ, Vidya Mawatha, Colombo 07. The programme was conducted in a hybrid format, enabling participants to attend physically at the venue while also providing live online participation through Zoom. This approach allowed a wider group of professionals to benefit from the programme.

The training was designed to enhance participants’ knowledge and practical understanding of Environmental, Social and Governance (ESG) principles, sustainability reporting, and the application of SLFRS S1 and SLFRS S2. Particular emphasis was placed on bridging the gap between fundamental ESG concepts and their practical application within organizations. The technical sessions were delivered by Emeritus Professor Hemanthi Ranasinghe, Deputy General Manager of Hayleys PLC and Chartered Environmental Professional Mr. Rohan Lakmal and Assistant Director of Environment Management Department of BOI and Chartered Environmental Professional Ms. Terancy Samarawickrama, who shared their academic and professional expertise on ESG, sustainability management and corporate sustainability reporting. The programme covered key areas including ESG fundamentals, sustainability-related risks and opportunities, governance and organizational responsibilities, sustainability performance indicators, data management and reporting, as well as the requirements of SLFRS S1 – General Requirements for Disclosure of Sustainability-related Financial Information and SLFRS S2 – Climate-related Disclosures.

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Mr. Rohitha Bandara
Executive Director Finance & ESG
Hayleys Fabric PLC

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Practical discussions highlighted the importance of integrating sustainability considerations into organizational strategy, governance, risk management and decision-making. Participants were also introduced to approaches for improving the quality, consistency and reliability of sustainability-related information and disclosures.

The interactive nature of the programme provided an opportunity for both physical and online participants to engage with the resource persons, raise questions and share professional experiences. A certificate of participation was awarded for both online and in person participants of the workshop at the end of the workshop.

The programme was coordinated by Ms. Isuri Sewwandi, Associate Member of IEPSL, who served as the Course Coordinator and facilitated the smooth implementation of both the physical and online components of the event.











IEPSL Events

Successful Seminar on EPL & Scheduled Waste Management Licensing Procedures Held in Jaffna

The Institute of Environmental Professionals Sri Lanka (IEPSL), in collaboration with The Management Club (TMC), successfully conducted a seminar on Environmental Protection Licence (EPL) and Scheduled Waste Management License (SWML) procedures on Thursday, 23 July 2026, at the Conference Hall, Governor's Secretariat, Northern Province (Old Park, Chundikkuli, Jaffna).

The event marked an important initiative towards strengthening environmental awareness and regulatory compliance among industries operating in the Northern Province. The seminar provided participants with valuable insights into the regulatory frameworks governing EPL and SWML, while offering practical guidance to support responsible and sustainable industrial practices.

The programme featured distinguished resource persons from the Central Environmental Authority (CEA), who shared their expertise and experience in environmental regulation and licensing procedures.

The speakers included:

- Mr. Kapila Mahesh Rajapaksha, Director General, Central Environmental Authority (CEA)
- Mr. P. Thuvarakan, Director (Covering Up Duties), CEA Northern Provincial Office, Kilinochchi
- Mr. Lawrance Christy Ananth, Assistant Director, CEA District Office – Jaffna

Through their insightful presentations, the speakers helped participants better understand the complexities of environmental licensing requirements and highlighted the importance of compliance in achieving sustainable development goals.

The seminar attracted active participation from a diverse group of stakeholders, including industry professionals, local authority representatives, business owners, and entrepreneurs from Jaffna and surrounding areas. Their enthusiastic engagement reflected the growing commitment among regional industries towards environmental responsibility and sustainable business operations.

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The seminar was further enriched by the valuable contributions of IEPSL resource persons: Mr. Indhra Kaushal Rajapakse, Mr. Ajith Ethugala, Mr. Trishan Perera, Mr. Yasantha Gunarathna, Dr. Athula Jayamanne, Dr. Nilanka Weerasinghe, Dr. Kavindi Rathnayake, and Eng. Dilumi Gunarathne, who shared their professional expertise and insights on environmental management and sustainable practices.Their valuable contributions further enriched the learning experience by providing professional perspectives on environmental management and industry best practices.

The seminar was organised and coordinated by the Industrial Relations Committee of IEPSL, demonstrating the committee's continued commitment to facilitating knowledge-sharing opportunities and supporting industries in meeting environmental compliance requirements.



Mr. P. Thuvarakan, Director (Covering Up Duties), CEA Northern Provincial Office, Kilinochchi





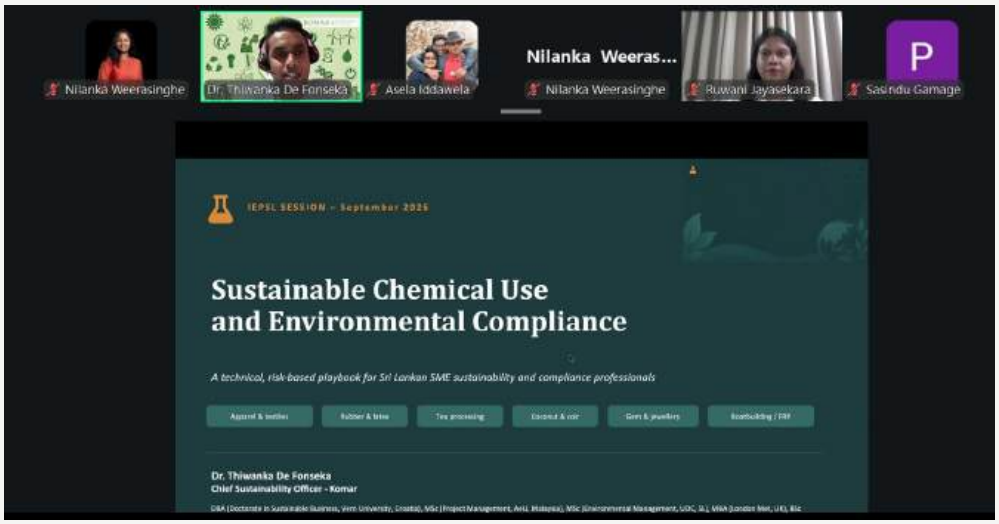
Mr. Lawrance Christy Ananth, Assistant Director, CEA District Office – Jaffna





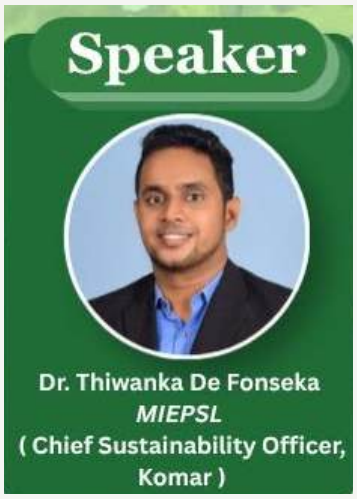
IEPSL Events

Strengthening Environmental Compliance Through Responsible Chemical Management



The online Awareness Programme on Sustainable Chemical Use and Environmental Compliance for SMEs was successfully held on 01 September 2026. Dr. Thiwanka De Fonseka, Chief Sustainability Officer at Komar, shared valuable expertise and practical insights, enhancing participants' understanding of sustainable chemical management and environmental compliance.

The session was moderated by Ms. Ruwani Jayasekera.





The program aimed to raise awareness of the importance of responsible chemical management and environmental compliance, particularly among Small and Medium-sized Enterprises (SMEs). As businesses continue to strengthen their sustainability practices, effective chemical management and adherence to environmental requirements play a crucial role in reducing environmental impacts, protecting employee health and safety, and promoting responsible business operations. The session provided valuable insights into sustainable chemical use, safe chemical handling, environmental responsibilities, and practical approaches that SMEs can adopt to improve their chemical management practices. It also emphasised the importance of strengthening workplace awareness, improving operational practices, and integrating environmental considerations into everyday business activities.

The session emphasised that effective chemical management does not necessarily require substantial investment, as simple practices such as safe storage, proper labelling, responsible disposal, and waste reduction can significantly enhance environmental compliance and workplace safety. The active participation of industry professionals, EHS practitioners, sustainability representatives, and students enriched the programme through valuable discussions and the exchange of knowledge and experiences. The programme highlighted the importance of continuous awareness-building, knowledge sharing, and capacity development in promoting environmentally responsible business practices. It encouraged SMEs to adopt safer and more sustainable chemical management practices to reduce environmental risks, improve workplace safety, and strengthen environmental compliance.

From Waste to Wealth: How AI Is Turning Wastewater into a Resource

Wastewater carries water, energy and nutrients we can no longer afford to waste. Artificial intelligence is turning treatment plants into recovery hubs and countries like Sri Lanka have a real chance to leapfrog straight to the smartest systems.

From Disposal to Recovery

Every day, our cities and factories send away far more than wastewater water. Hidden in municipal and industrial wastewater is a valuable mix of reusable water, recoverable energy and plant nutrients. For most of the last century, we simply treated it, discharged it and forgot about it.

That era is drawing to a close. Affordable sensors, cloud computing, and AI are transforming wastewater treatment plants into water resource recovery facilities, driven by climate pressures, water scarcity, and stricter regulations. AI increasingly serves as the operational intelligence, analysing data, anticipating challenges, and optimizing performance through real-time decisions.

What Makes a Plant "Smart"?

Smart wastewater management uses connected sensors, automated controls and data analytics to run water and wastewater systems in real time instead of relying on fixed schedules, occasional manual sampling and repairs after something breaks.

A conventional plant runs on routine. Operators test water quality periodically, adjust chemical dosing from experience, and fix pumps and pipes once they fail.

A smart plant adds four layers of intelligence:

- IoT sensors that continuously measure flow, dissolved oxygen, turbidity, pH, and contaminant levels.
- SCADA systems (supervisory control and data acquisition) that bring monitoring and control into one place.
- Digital twins: virtual replicas of a plant or pipe network, used to test scenarios safely before applying them.
- Automated control loops that adjust aeration, chemical dosing, and pump speeds without waiting for an operator.

This transition replaces conventional, schedule-based operations with continuous, data-driven decision-making.

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Where AI Adds Value

AI enhances treatment plant performance through predictive maintenance, process optimization, digital twins, compliance monitoring, and leak detection. By identifying potential equipment failures early, optimizing aeration and chemical dosing, and enabling engineers to test operational changes virtually, AI improves efficiency while reducing costs and operational risks. It also supports regulatory compliance by detecting process deviations before violations occur and helps minimize water losses through accurate leak detection. However, AI does not replace sound engineering principles or well-designed treatment processes; rather, it builds upon these foundations to make water and wastewater systems smarter, more efficient, and reliable.

The Global Picture: From Pilots to Scale

AI in water and wastewater has moved beyond scattered pilot projects into genuine scale-up though progress is uneven. Industry estimates put global spending at roughly US$6.2 billion in 2024, rising past US$8.7 billion in 2026.

- North America and Europe lead in maturity. Many industrial utilities use AI-powered digital twins, and municipal utilities are building intelligent networks in response to ageing assets and regulation.
- East Asia has invested at the national level. Japan's government-backed AI strategy, launched in 2019, spurred funded projects applying AI to water and wastewater operations.
- The Gulf and wider Middle East, facing acute scarcity, use AI to optimize desalination and manage scarce resources; Saudi Arabia has linked AI investment and workforce targets partly to water security.
- Small and mid-sized utilities everywhere, including in parts of Europe, still struggle with the basics: consistent data and in-house expertise.

The last point is particularly significant. AI's effectiveness depends as much on data quality and institutional readiness as on algorithms, with reliable monitoring being essential.

A Practical Path for Sri Lanka and the Developing World

High costs, limited data and skill gaps remain challenges. A phased, cost-effective approach offers a practical alternative to expensive, centralized systems.

- **Start small:** leak detection, energy optimization and online monitoring deliver quick returns with modest investment.
- **Go modular:** decentralized systems suit industrial sites and growing communities and scale with available capital.
- **Use the cloud:** hosted analytics give access to AI without costly in-house infrastructure.
- **Build local capability:** reliable instrumentation, trained operators and transparent tools are what turn a pilot into a lasting system.

The Circular Economy Connection

Perhaps AI's biggest contribution is a change in mindset: it helps us see a treatment plant as a resource recovery facility rather than a disposal site a cornerstone of the circular economy. The question shifts from "what must we remove?" to "what can we recover?"

- **Water reuse:** treated effluent redirected to irrigation, industrial cooling or, with advanced treatment, potable reuse, easing pressure on freshwater sources.
- **Nutrient recovery:** phosphorus and nitrogen extracted from sludge and returned to agriculture as fertilizer inputs instead of polluting waterways.
- **Energy recovery:** biogas from sludge digestion used to power the plant itself, moving towards energy-neutral or even energy-positive operation.

AI strengthens circular water management by optimizing resource recovery, improving process efficiency, and ensuring consistent water quality. Together, AI and circular design can transform treatment plants from cost centres into resource recovery hubs. Achieving this vision requires reliable data, skilled professionals, and strong partnerships to advance sustainable water management.



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A New Era for Environmental Governance: The National Environmental (Amendment) Act of 2026

The National Environmental (Amendment) Act, No. 15 of 2026, represents a landmark shift in Sri Lanka's environmental legislative framework. Certified by the Speaker on July 21, 2026, this Act introduces critical updates to the original National Environmental Act, No. 47 of 1980, addressing modern ecological challenges that have emerged over the last four decades.

Marking a significant milestone in Sri Lanka's environmental governance, the National Environmental (Amendment) Act, No. 15 of 2026 ushers in a new era of environmental regulation, more than two decades after the country's last major legislative revision in 1988. This long-awaited reform seeks to modernize the nation's approach to conservation, pollution control, and sustainable development. By integrating contemporary concepts such as Extended Producer Responsibility (EPR), Strategic Environmental Assessment (SEA), economic instruments for wastewater discharge based on the polluter pays principle, wetland conservation, single-use plastic control, legalizing environmental clearance procedures for establishing new industrial and service sector enterprises, and strengthening Environmental Impact Assessments (EIAs), the Act seeks to balance industrial growth with the imperative of ecological preservation.

1. Strengthening the Central Environmental Authority (CEA)

The 2026 Amendment significantly bolsters the regulatory powers of the Central Environmental Authority. It streamlines the administrative processes for environmental protection licenses and clarifies the jurisdictional boundaries of the CEA, ensuring more efficient oversight of industrial activities.

2. Extended Producer Responsibility (EPR)

One of the most revolutionary aspects of the new Act is the formal introduction of Extended Producer Responsibility (EPR). This framework shifts the responsibility for the post-consumer stage of a product's life cycle back to the producers and importers.

A. Plastic/ e- waste Waste Management: Manufacturers are now legally obligated to manage the collection and recycling of their packaging materials.

B.Circular Economy: By incentivizing sustainable product design, the Act encourages a transition from a "take-make-dispose" model to a circular economy.

3. Reforming the Environmental Impact Assessment (EIA) Process

Building on the existing EIA requirements established under the 1980 Act, the 2026 Amendment introduces several key improvements:

A. Increased Accountability: The Act introduces specific punishable offenses for project proponents and consultants who provide false or misleading information in EIA reports.

B. Enhanced Monitoring: It mandates more stringent post-approval monitoring to ensure that developers adhere to the environmental management plans submitted during the assessment phase.

C.Public Participation: The new law provides clearer mechanisms for public consultation, ensuring that local communities have a voice in projects that affect their surrounding ecosystems.

4.Strategic Environmental Assessment (SEA)

All projects, plans and programmes which has significant environmental effect is required to conduct an SEA under the guidance of the CEA. The technical comments on the SEA study are required to be incorporated to the project, plan or programme, and to ensure implementation of those comments to address the environmental effects.

5. Polluter pays principle for controlling water pollution

The discharge of wastewater into the environment will be calculated in terms of volume, and the COD concentration annually and the waste loads released is charged in a two-tier penalty system to encourage water efficiency of manufacturing sector.

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6. Wetland conservation

Wetlands that are not protected by any other legal instruments, such as the Forest Ordinance, Fauna and Flora Protection Act, etc are identified and declared as conservation areas under the new amendment.

7. Single-use plastic control

The present amendment contains provisions to seize illegal single-use plastic items and arrest the accused for a cognizable offence. The violation of section 23W of the NEA will be subject to high penalties and confiscation of machinery used for producing DUP items.

8. Chemical management

The new amendment contains provisions to manage hazardous chemicals from the point of importation to end use and the final disposal of obsolete chemicals and their residues.

9. Stricter Penalties and Enforcement

To act as a meaningful deterrent against pollution, the Act has drastically increased the fines and prison sentences for environmental violations.

A.Industrial Pollution:
Penalties for discharging hazardous waste without a license have been revised to reflect the true cost of environmental damage.

B.Judicial Power:
Courts now have greater authority to order restoration or compensation for environmental harm, moving beyond simple monetary fines.

10. Climate Resilience and Sustainable Development

The 2026 Amendment recognizes the urgent threat of climate change. It provides a legal basis for the government to issue regulations specifically targeting greenhouse gas emissions and the protection of carbon sinks, such as forests and wetlands, which were previously governed primarily by the Forest Conservation Ordinance and the Fauna and Flora Protection Ordinance

The National Environmental (Amendment) Act, No. 15 of 2026, is a vital update to Sri Lanka's statutory landscape. By closing the loopholes of the previous decades and introducing forward-looking policies like EPR, it provides the tools necessary to protect the nation's rich biodiversity. While the law marks a significant step forward, its success will ultimately depend on consistent enforcement, adequate funding for the CEA, and a shared commitment from the private sector and the general public to safeguard the environment for future generations.'



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The World's Largest Climate Experiment Is Happening Without a Laboratory: What El Niño Teaches about 2050?

What if we could glimpse the climate of the future without waiting until 2050 or 2100? We cannot travel forward in time, but nature occasionally creates conditions that allow us to see how our communities, farms, cities, and ecosystems respond when the climate deviates from what we believe is normal. One such natural experiment is El Niño.

El Niño begins with unusually warm surface waters in the tropical Pacific Ocean. Although this occurs thousands of kilometres away from Sri Lanka, changes in the ocean interact with the atmosphere, influencing temperature, winds and rainfall across many parts of the world. No scientist created these conditions, and no laboratory could reproduce them on such a scale. Nature has created the experiment for us. The question is whether we are prepared to learn from it.

Most discussions surrounding El Niño understandably ask what it will do to us.

Will temperatures rise? Will rainfall change? What will happen to agriculture, water resources or food security? These questions matter. But perhaps we should ask another: What can the coming El Niño teach us about living in a changing climate?

This does not mean an El Niño represents the climate of 2050 or 2100. El Niño and climate change are different phenomena. El Niño is a naturally occurring, temporary fluctuation of the ocean-atmosphere system, while human-induced climate change is altering our long-term climatic conditions. Nevertheless, El Niño can temporarily place environmental and human systems under unusual climatic stress. It can reveal how prepared we are when familiar conditions are disrupted.

Our society is built around expectations of what is "normal". Farmers cultivate according to seasons. Reservoirs are managed based on expected rainfall. Urban drainage systems are designed using historical rainfall patterns. Buildings are constructed for particular climatic conditions. But as the climate changes, yesterday's definition of normal may become an increasingly unreliable guide to tomorrow.





Ref: NewsFirst and Newswire

This is where El Niño becomes more than a weather story.

Which crops tolerate unusual conditions and which fail? Which communities manage water effectively during shortages? Which neighbourhoods repeatedly flood under intense rainfall? How do fisheries, forests and coral reefs respond to environmental stress? Most importantly, who adapts, who struggles, and why?

After extreme events, we are very good at counting damage: flooded houses, damaged crops, depleted reservoirs and economic losses. But we should become equally interested in measuring resilience. If one farming community copes better than another, what did it do differently? If one ecosystem recovers while another deteriorates, why? If a particular water-management practice succeeds, can it be adopted elsewhere? Solutions to future climate challenges may already exist within our communities; we simply need to recognise and learn from them.

When El Niño eventually fades, returning immediately to "business as usual" would therefore be a missed opportunity. Weak drainage exposed to extreme rainfall can be redesigned. Agricultural practices that perform poorly under climatic stress can be reconsidered. Cities struggling with heat can be adapted. Vulnerable ecosystems can receive greater protection, while successful early-warning systems can be strengthened. A temporary climatic disturbance can provide permanent lessons, if we pay attention.

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The increasingly frequent and intense climate-related challenges, including the disruptive effects of El Niño on rainfall patterns, temperatures, and water availability, bring us to the broader question of sustainability. Sustainable development is commonly understood as meeting the needs of the present without compromising the ability of future generations to meet their own needs. But those “future generations” are not abstract people living in some distant century. A child born today will step into early adulthood around 2050, potentially witnessing the arrival of 2100.

What kind of Sri Lanka is that generation going to inherit? Will the homes and urban areas we currently inhabit be livable? Can our agricultural sector and water networks withstand intense climatic instability? Even our natural resources-from marine life to inland forests-face severe risk if our infrastructure relies entirely on outdated climate data. Ultimately, sustainability requires making strategic decisions today that remain viable under tomorrow's harsher realities. While the upcoming El Niño is not a carbon copy of what 2050 will look like, it serves as a critical diagnostic tool. It reveals the hidden vulnerabilities that stable years cover up, highlighting which systems fail and which adapt. Most importantly, it delivers these insights while we still have a window of opportunity to intervene.

So instead of asking only, “What will El Niño do to us?”, perhaps we should ask, **“What can the coming El Niño teach us about how to live in a changing climate?”**



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Live Stream: Click Here

IEPSL Events

IEPSL and YEPF Collaborate to Promote Climate Preparedness through Special El Niño Webinar

In recognition of the growing importance of climate preparedness and resilience, the Institute of Environmental Professionals Sri Lanka (IEPSL) and its Youth Environmental Professionals Forum (YEPF) collaborated with Environment Key Global to support a special webinar on “Anticipating El Niño: Strengthening Preparedness and Climate Resilience in Asia and Africa,” held on 06 July 2026. The session provided an important platform to strengthen awareness of El Niño, its potential regional impacts, and the need for proactive approaches to climate preparedness and resilience.

The webinar featured Mr. Amir H. Delju, Senior Scientific Officer at the World Meteorological Organization (WMO), who shared expert insights into the science behind El Niño and its influence on regional climate patterns. The session explored the potential implications of El Niño for water resources, agriculture, food security, public health, and livelihoods across Asia and Africa, highlighting the interconnected nature of climate risks and their impacts on communities and economies.

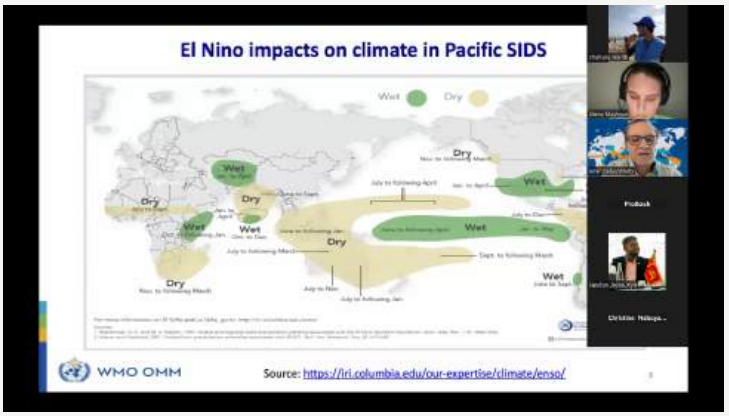
A key focus of the discussion was the importance of early warning systems, disaster preparedness, and timely access to climate information in reducing vulnerability to climate-related hazards. The session also highlighted practical adaptation measures that can be undertaken by governments, institutions, communities, and individuals to strengthen their capacity to anticipate and respond to changing climate conditions.

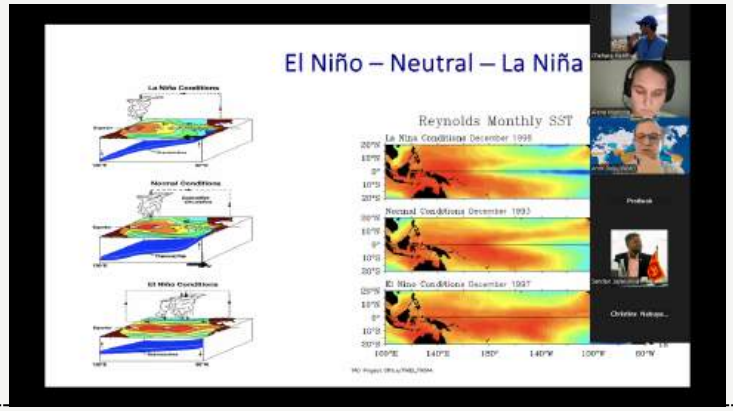
The collaboration between IEPSL and YEPF contributed to creating a valuable space for young environmental professionals, university students, climate-conscious youth, and members of the wider environmental community to engage with international expertise on climate science and resilience. Through this collaboration, the webinar further strengthened the role of professional and youth networks in promoting environmental awareness, knowledge exchange, and meaningful engagement with emerging climate challenges.

The session also encouraged participants to recognize the importance of moving beyond reactive responses towards anticipatory climate action. Understanding climate signals such as El Niño, strengthening preparedness mechanisms, and promoting collaboration among scientific, professional, governmental, and community stakeholders are essential steps towards building more resilient societies.

The webinar was organized by Environment Key Global, with IEPSL, YEPF, and IAAS Sri Lanka joining as partners. The collaborative initiative demonstrated the value of bringing together established environmental professionals and the younger generation to enhance knowledge, encourage dialogue, and promote collective action towards a more climate-resilient and sustainable future.

The recording can be accessed here:
Watch the webinar recording on YouTube





IEPSL Events

Bridging Science and Innovation: An Interactive Research Session at Ocean University

The Institute of Environmental Professionals Sri Lanka (IEPSL), in collaboration with the Ocean University of Sri Lanka and with the support of the Youth Environmental Professionals Forum Sri Lanka (YEPF), conducted an interactive knowledge-sharing session titled “Research Excellence, Scientific Publishing and Emerging Technologies“.

The Institute of Environmental Professionals Sri Lanka (IEPSL), in collaboration with the Ocean University of Sri Lanka and with the support of the Youth Environmental Professionals Forum Sri Lanka (YEPF), conducted an interactive knowledge-sharing session titled “Research Excellence, Scientific Publishing and Emerging Technologies“.

The event was held on 3 August 2026, from 9.00 a.m. to 11.00 a.m., at the Ocean University of Sri Lanka. It brought together students, academic staff, researchers and environmental professionals for a discussion on research excellence, marine and environmental science, scientific publishing, multidisciplinary fieldwork and emerging technologies.

The session was led by Dr. Douglas Bearham, an Experimental Scientist from the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia. Drawing on his international experience, he shared practical insights from marine and environmental research projects, explained the scientific publishing process and discussed the use of Artificial Intelligence in modern research. The interactive exchange encouraged participants to consider how innovation, collaboration and effective scientific communication could support evidence-based solutions to local and global environmental challenges.





The programme strengthened connections among academia, research organisations and professional bodies while encouraging students to engage more actively in Sri Lanka’s environmental sector.

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Proof in the Pixels: Tracking Beddagana Wetland's Ecological Recovery

"Colombo is the world's first capital city to be accredited as a Ramsar wetland city!!"

The titles be awarded easily, but without meaningful action, they can become merely a piece of paper displayed on a wall. A new satellite-based research study tracking changes across four important time periods – 2014, 2016, 2021 and 2025 – has revealed the first strong evidence that one of Colombo's flagship urban wetlands is experiencing genuine ecological recovery driven by conservation initiatives.

Why is this significant?

Urban wetlands are one of the fastest vanishing ecosystems on Earth. The rate of wetland loss, particularly in rapidly urbanization cities of the Global South, exceeds the capacity of most protection programmes to keep up with the pace of urban expansion, urbanisation and drainage, filling and development on wetlands. Sri Lanka is not an exception to this scenario. In less than a few decades, a significant proportion of the original wetlands within the Colombo Metropolitan Area has been lost due to rapid urbanisation and land-use changes. In this context, it is important to note that Beddagana Wetland Park, an 18 ha protected freshwater wetland in Sri Jayewardenepura Kotte, is an opportunity to observe the effects of legal protection and restoration efforts on the recovery of freshwater wetlands, as opposed to assuming it.

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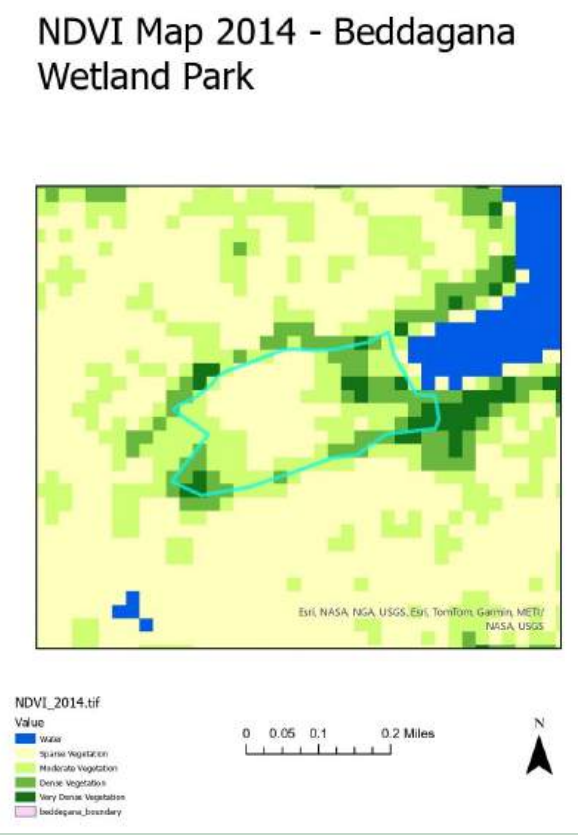


***Figure 1**: 2014, before protection. (Thilakarathne, 2026) Mostly sparse vegetation inside the boundary.*

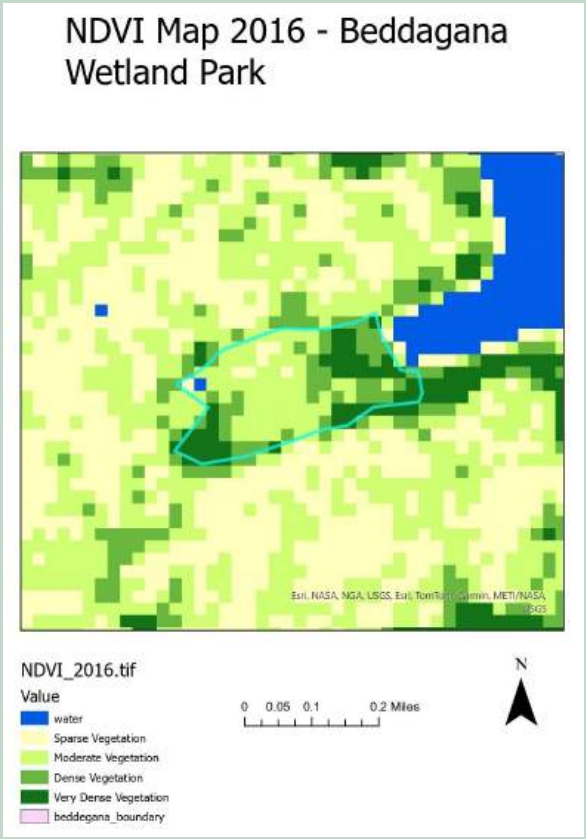


***Figure 2**: 2016, park established. (Thilakarathne, 2026) Moderate-density vegetation expands through the core.*

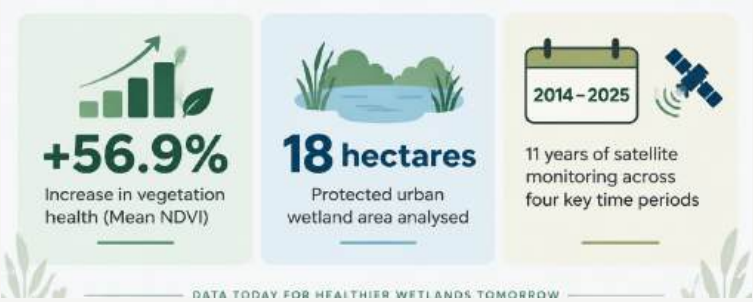
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Interpreting NDVI Values as Indicators of Vegetation Health

The Normalised Difference Vegetation Index (NDVI) is a simple method that uses satellite images to determine the health and greenness of vegetation at a specific location. It was the primary tool used in this study, with NDVI values ranging from 0, representing bare ground, to 1, indicating healthy and dense vegetation. To investigate this, free Landsat 8 satellite images of Beddagana were analysed over four years, representing different stages in the park's history: 2014, before the park's existence; 2016, the year of the park's formal establishment; 2021, several years into the park's growth; and 2025, the current condition at the time of analysis.

Study Findings

The results obtained were impressive. Average vegetation health across the park rose by 56.9%, from an NDVI of 0.251 in 2014 to 0.394 in 2025. Equally significant, the difference in that vegetation diminished; the park didn't just have a few rich spots, and the rest was barren. It grew throughout the entire 18 hectares, with uniformity.



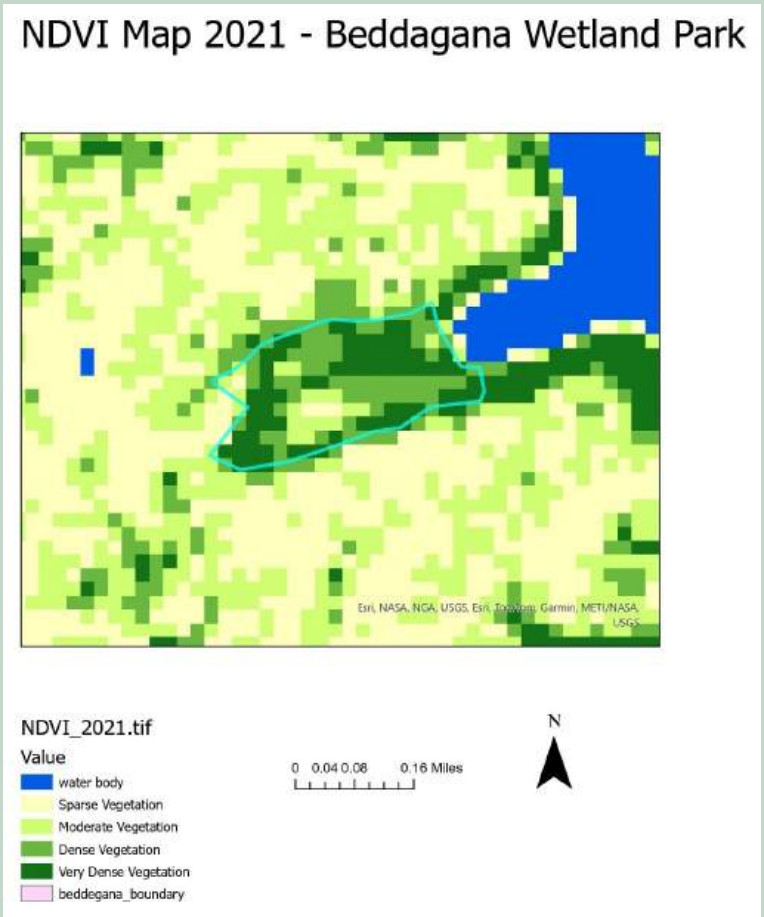


***Figure 3**: 2021, early maturation. (Thilakarathne, 2026) Dense vegetation now dominates the interior.*

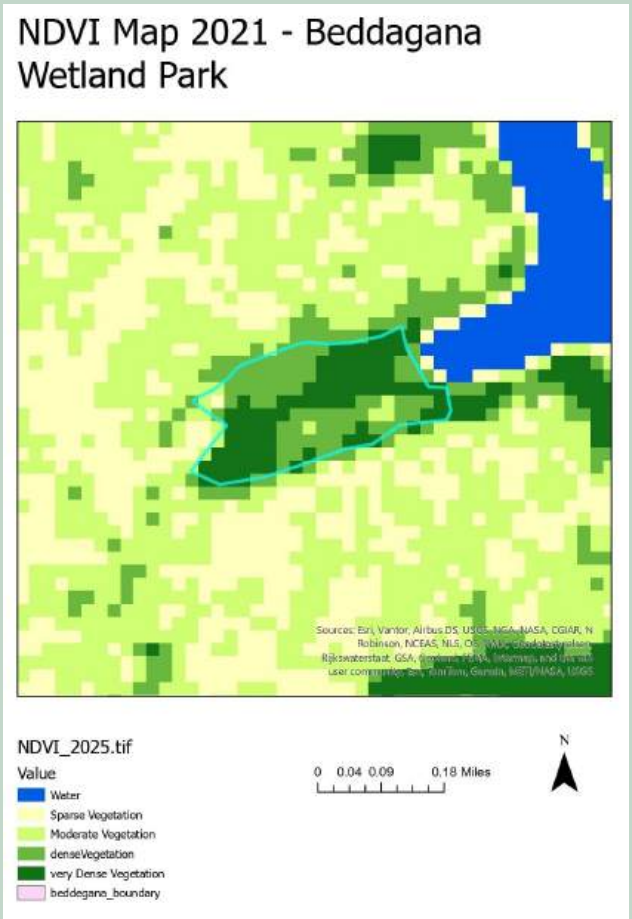
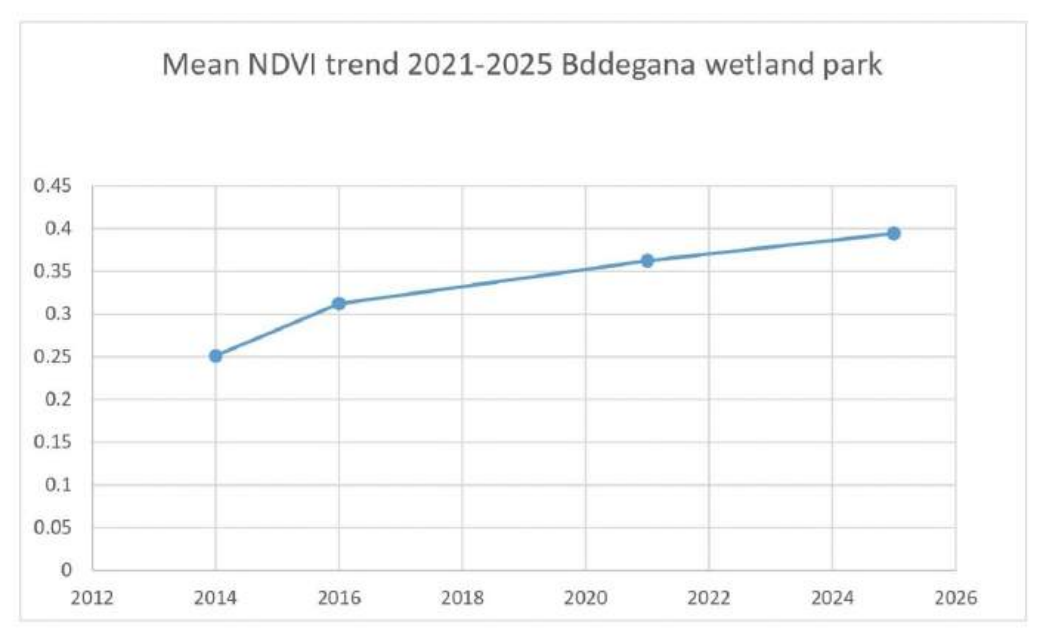


***Figure 4**: Current status in 2025. (Thilakarathne, 2026) Very dense, closed-canopy patches fill the core*

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The scores have been rising steadily and consistently, from 0.251 (2014) to 0.394 (2025) with no year experiencing a drop compared to the previous year.

***Figure 5**: NDVI trend chart (Thilakarathne, 2026)*

Slowing down of the rate-of-change here is a sign of a maturing ecosystem, but not a stalling one.

That's a tale in itself. The largest increase (24.3%) was in the first two years, when the park was created and active restoration work was undertaken. After that, growth continued but slowed: 16.0% between 2016 and 2021, then 8.8% between 2021 and 2025. While a decrease in the growth rate may seem alarming at first sight, but it wasn't. This pattern aligns with the theory of ecological succession, which suggests that pioneer species rapidly colonise newly available areas, followed by a gradual reduction in growth rates as the ecosystem develops, matures, and competition for limited space and resources increases.

Key Factors behind the Wetland's Successful Recovery

The important lesson for conservation practitioners is not just that Beddagana recovered, but how the recovery was achieved. It was not the result of a single measure, but rather a combination of protective measures: statutory legal protection of the site, consistent and stable funding (in contrast to single acts of goodwill by one or two individuals), clear boundaries for the park, and international accountability as a part of the RAMSAR Wetland City.

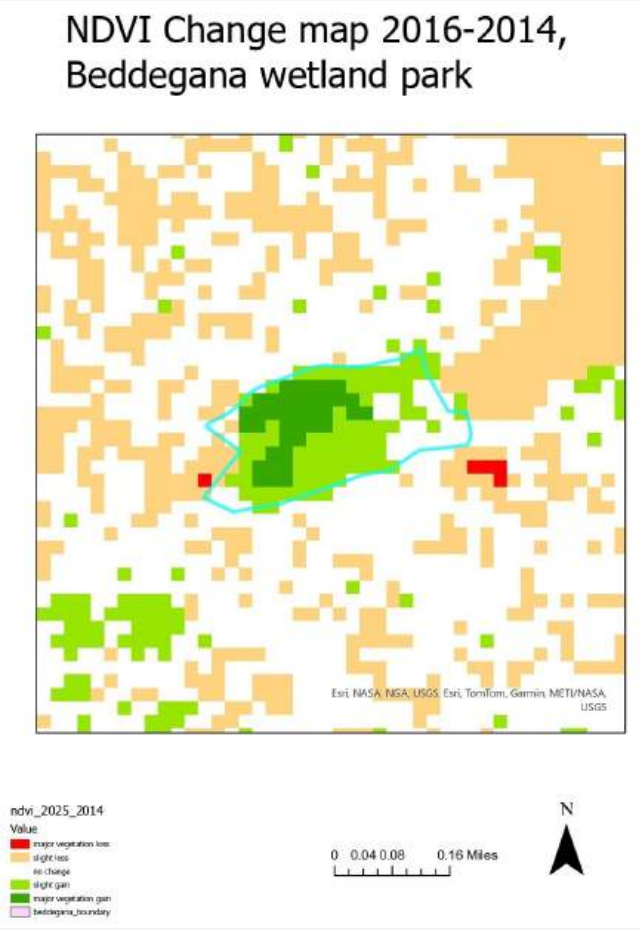


***Figure 6**: Net vegetation change, 2014–2025. (Thilakarathne, 2026)*
Green shades mark real vegetation gain, concentrated almost entirely inside the park's protected core (exactly where restoration work was focused.)

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The transferable lesson:

Removing any one of these key pillars: legal protection, sustained funding, clearly defined boundaries, or international recognition can weaken conservation outcomes, as demonstrated by slower recovery rates observed in other wetlands across the Colombo region. Beddagana provides a governance model for other urban wetlands in Sri Lanka that currently have legal protection on paper but have not got an integrated support system to implement the protection.

A Necessary Caveat: The Limits of What Satellite Data Can Reveal

All studies may contain limitations. Landsat 8 has a relatively coarse resolution of 30 m for such a small area, which could result in a lack of fine-scale detail of the vegetation in the park. The use of Sentinel-2 imagery, with its finer 10-metre resolution, would be able to capture the details more accurately and further study of the park's hydrological changes and the various ecosystem services the park offers could be undertaken.

Closing Reflection

Drawing on the author's internship experience in conservation policy and advocacy at the Central Environmental Authority, alongside her academic background in Urban Bioresources, this study highlights the importance of robust scientific monitoring in guiding environmental decisions. It emphasizes the value of evidence-based conservation, effective governance and coordinated management, demonstrating that urban wetland recovery is both achievable and measurable, as reflected in Colombo's ecological improvements.



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Webinar for the
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IEPSL Events

IEPSL Showcases Sri Lankan Expertise at the 8th BFIN Conference in Nepal

IEPSL proudly represented Sri Lanka at the 8th Annual Banking and Financial Institutions Network (BFIN) Conference in Kathmandu, Nepal, themed "Future-Ready Financial Systems: Leadership, Sustainability and Transformation Amid Global Uncertainty." The conference brought together regional experts to explore financial-sector transformation, sustainability and emerging global challenges. Mr Janaka Wijesekera, Fellow Member and Treasurer of IEPSL, and Mr Buddhika Batheegama (m.IEPSL) contributed as speakers, sharing their expertise and insights.



Mr. Janaka Wijesekera presenting on "Sustainable Development, ESG Integration, and Long-Term Economic Growth"

Mr Wijesekera presented on "Sustainable Development, ESG Integration, and Long-Term Economic Growth," highlighting ESG's role in economic resilience, investment and strategic autonomy. He also showcased Sri Lanka's ancient cascade irrigation system as a model of environmental sustainability, alongside examples from India, China and ASEAN.



Mr. Buddhika Batheegama presenting on "Climate Risk, Nature Loss, and the Need for Sustainable Financial Systems in South Asia,"

Mr. Batheegama presented on "Climate Risk, Nature Loss, and the Need for Sustainable Financial Systems in South Asia," focusing on the growing implications of climate and nature-related risks for financial systems and the importance of integrating sustainability considerations into financial decision-making.

The IEPSL participation provided a valuable platform to share Sri Lankan environmental expertise and perspectives while strengthening regional dialogue and potential collaboration among environmental professionals, financial institutions and sustainability practitioners. The presentations also highlighted the emerging opportunity for South Asian countries to use sustainable finance, knowledge exchange and ESG cooperation as tools for strengthening economic resilience and regional collaboration.





Members' Corner



Mr. Jayasanka Sandun Jayasuriya (A01210), an Associate Member of IEPSL, has been selected as one of only three young leaders worldwide for the inaugural Commonwealth Youth Negotiations Fellowship Programme 2026 in November. He will represent Sri Lanka at the 31st UN Climate Change Conference (COP31), contributing to international discussions on climate action, adaptation and youth participation. Having previously participated in COP30 and UNEA-7, Mr. Jayasuriya has demonstrated his commitment to global environmental leadership, playing a key role in establishing the Youth Environmental Professionals Forum (YEPF) under IEPSL, where he currently serves as its Founding Ambassador. IEPSL proudly congratulates Mr. Sandun on this remarkable international achievement, which highlights the growing contribution of Sri Lankan youth to global environmental diplomacy.



IEPSL Chartered Environmental Professional, Dr. Kasunthi Amarasekara (C00877) represented Sri Lanka at the Deep-Sea Macrofauna Taxonomy School organised by the International Seabed Authority (ISA), from 7-11 September 2026. The training enhanced participants' skills in standardised deep-sea biodiversity assessment methods and was delivered in collaboration with leading marine and governmental institutions from India, the Indian Ocean region, and the Republic of Korea. Dr. Amarasekera's participation provided an important opportunity to represent Sri Lanka and contribute to international knowledge-sharing and capacity-building in deep-sea biodiversity research. IEPSL is proud to recognise Dr. Kasunthi Amarasekera's representation of Sri Lanka at this significant international capacity-building initiative.



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Our Published Voices

El Niño's Warning: A Call For Smarter Buildings To Beat The Heat



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Member - Indusrial Relations Committee of IEPSL

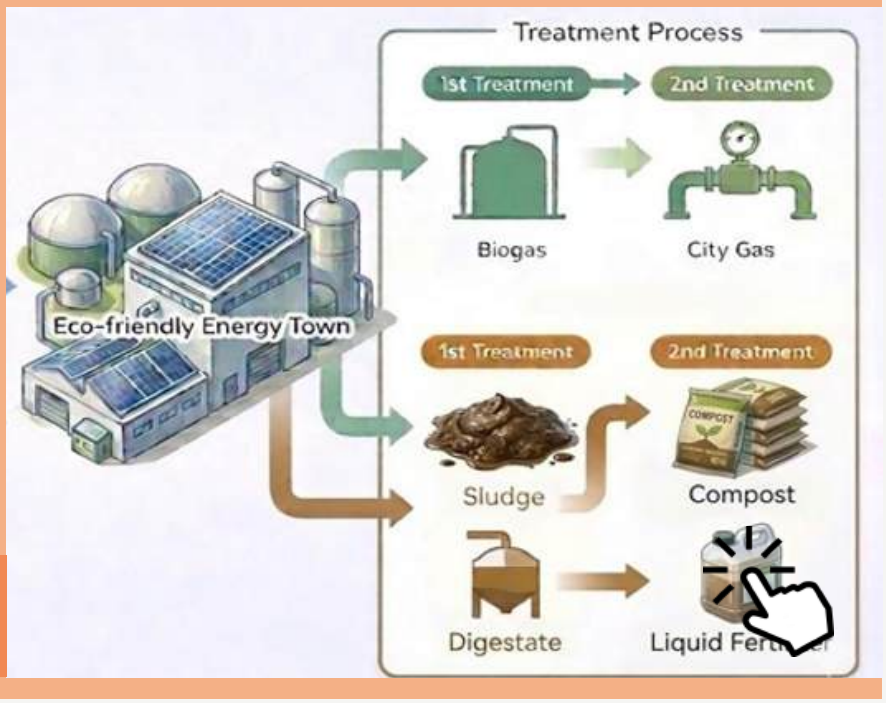


Featured in Daily Mirror
Pg. 03 - On 28 Aug 2026

From NIMBY to PIMFY: South Korea's Community-Based Approach to Climate Change Mitigation



Author:
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Environment Promotion Unit,
Central Environmental Authority.



Featured in Daily FT
Pg. 08 - On 05 Sep 2026

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Local News and Updates

Vanaspati Programme Adds 20 Forest Areas to National Conservation Efforts



Image courtesy: www.newswire.lk

Sri Lanka has designated 20 forest areas as reserved forests through a new Gazette notification, bringing nearly 9,538 hectares of forest land under enhanced protection.

The newly declared areas are located across Nuwara Eliya, Badulla, Kegalle, Ampara, Vavuniya and Anuradhapura districts, and include the Elgin Forest in Nuwara Eliya.

The declaration was made under the 'Vanaspati' National Programme, which focuses on conserving the country's forest resources and ensuring their protection for future generations. The Gazette was signed by Environment Minister Dr. Dammika Patabendi. The announcement was made alongside the opening of a new museum at the Sandathenna Forestry College. The event also included the presentation of appointment letters to newly recruited officers of the Forest Conservation Department. The move is expected to contribute to stronger forest conservation and the sustainable management of Sri Lanka's natural ecosystems.

US$38 million mercury and waste-management project launched

Sri Lanka is stepping up efforts to improve the management of hazardous chemicals, mercury and medical waste through a new US$38 million environmental project led by the Ministry of Environment. Initiative is expected to strengthen national systems for identifying and monitoring potentially harmful chemicals, particularly those used in agriculture. Improved laboratory facilities and stronger regulatory capacity will support more effective oversight and safer chemical management.

In the health sector, the project will support the replacement of medical equipment that contains mercury, helping the country progress towards its commitments under the Minamata Convention on Mercury.

Attention will also be given to reducing harmful pollutants released during unsafe medical waste treatment. The programme will promote cleaner and safer technologies to limit the formation of persistent organic pollutants associated with poor incineration practices.

The project is being implemented by the Ministry of Environment with technical assistance from the United Nations Development Programme (UNDP). To strengthen implementation, modern analytical laboratory equipment was formally handed over to the Ministry in July, enhancing Sri Lanka's ability to monitor chemicals and support evidence-based environmental regulation.

Local News and Updates

Sri Lanka's NDC 3.0 and Climate Action Initiatives Gain Global Recognition



Sri Lanka's environmental and climate initiatives have received international recognition, particularly for their focus on youth engagement in conservation. During recent United Nations forums in Bangkok, the country reaffirmed its commitment to the Paris Agreement and the 2030 Agenda for Sustainable Development, while presenting priorities under its Nationally Determined Contributions for 2026–2035. These include expanding renewable energy, promoting electric transport, strengthening climate-resilient agriculture, and advancing blue economy opportunities through the protection of mangroves and coastal ecosystems.

The discussions also created opportunities for international technical and financial assistance in areas such as air quality monitoring, environmental management, plastic pollution control, environmental literacy and youth leadership. Sri Lanka's efforts to involve young people in environmental action received particular recognition from the UNEP Asia-Pacific Region, while the wider engagements are expected to support access to green investment, climate finance and future environmental projects.

Sri Lanka Hosts the World's First Congress Dedicated to Snakes

Sri Lanka hosts the first-ever World Congress on Snakes (WCS 2026) in Kandy from 1–4 October 2026, bringing together international scientists, snake specialists, medical professionals and local researchers together to exchange knowledge on snake biology, conservation, public health and human–snake interactions. Sri Lanka serves as a fitting host because of its exceptional reptile diversity and high level of snake endemism.

The congress covers a wide range of scientific and conservation themes, including snake ecology, evolutionary research, habitat protection, captive management, climate-related pressures and emerging technologies such as artificial intelligence, citizen science and conservation genomics. Snakebite envenomation is also a major focus, with experts discussing improved clinical responses, toxicology and the development of more effective antivenoms. Field visits to selected rainforest and dry-zone habitats complement the scientific sessions, allowing delegates to observe Sri Lanka's native snake species in their natural environments.

Local News and Updates

Critically Endangered Plant Found in Sitawaka Forest



Image courtesy: Vishnu et al., 2026 (CC BY-NC 4.0).

A population of the critically endangered plant *Indianthus virgatus* has been rediscovered in Sri Lanka, 170 years after it was last formally recorded in the country. Researchers located between 70 and 100 individuals in a lowland forest fragment along the Sitawaka Ganga River in January 2025. The species, which produces small white flowers and grows in the shaded understory of wet tropical forests, had previously been known in Sri Lanka only from a specimen collected in 1855.

The discovery followed a targeted search using historical records and habitat suitability modelling to identify likely areas in south-western Sri Lanka. As the sole species within the genus Indianthus, the plant is considered important from both evolutionary and biogeographical perspectives. Its widely separated populations in India and Sri Lanka also raise questions about the historical processes that shaped its present distribution. Researchers have stressed the conservation significance of small, isolated forest remnants, particularly moist and sheltered areas that can maintain stable environmental conditions despite wider habitat disturbance. Much of the species' potential habitat in Sri Lanka has been affected by plantation development, making protection of the newly identified population a priority. The study recommends safeguarding the remaining habitat, establishing conservation collections in botanical gardens, and assessing the species for inclusion on the IUCN Red List to strengthen its long-term protection.

Coastal Conservation Through New GEF-Funded Project

Sri Lanka Secures US$4.5 Million for Coastal Biodiversity Conservation and Sustainable Livelihoods
Sri Lanka is set to implement a five-year coastal conservation initiative worth US$4.507 million, aimed at protecting biodiversity, strengthening ecosystem resilience and improving livelihoods in the eastern and southern regions. Supported by the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP), the project will be carried out by the Ministry of Environment in Ampara, Batticaloa and Hambantota. The project agreement was formally signed by Ministry Secretary K.R. Uduwawala and UNDP Resident Representative Azusa Kubota.

The programme will focus on improving the management of coastal and marine ecosystems, strengthening institutional frameworks and encouraging investment in nature-based solutions. It will also promote community participation, environmental awareness, knowledge-sharing and gender inclusivity. By integrating conservation efforts with sustainable economic development, the initiative aims to safeguard vulnerable ecosystems, enhance climate resilience and generate long-term socioeconomic benefits for coastal communities.

Global News and Updates

Ocean Heat Continues to Threaten Marine Coral Reefs



Global sea surface temperatures remained at or near record highs throughout the July–September period, prolonging the Fourth Global Coral Bleaching Event declared by NOAA and the International Coral Reef Initiative. Massive thermal stress across equatorial ocean basins forced marine biologists to raise warnings for major reef ecosystems worldwide, including Australia's Great Barrier Reef and Caribbean networks.

Source: Australian Institute of Marine Science (2026)

Coral bleaching occurs when prolonged elevated water temperatures cause corals to expel the symbiotic algae residing in their tissues, turning them completely white. If water temperatures do not return to baseline levels quickly, widespread reef mortality follows, threatening nearly 25% of all marine life that depends on coral habitats for shelter and breeding.

Mediterranean Wildfires Driven by Extreme Heatwaves

During July and August, intense heatwaves across Southern Europe and the Mediterranean basin triggered aggressive wildfires across Greece, Italy, and coastal Turkey. Scorching temperatures exceeding 40°C (104°F) combined with prolonged drought conditions and strong winds created volatile conditions for fire outbreaks.

The fires destroyed thousands of hectares of pine forests and olive groves, releases massive amounts of carbon dioxide into the atmosphere, and forced major community evacuations. Climate scientists noted that heatwaves in the Mediterranean region are becoming longer, more intense, and more frequent due to anthropogenic warming, accelerating land degradation and desertification.



Source: Reuters (2026)

Global News and Updates

Oil Spill from a Damaged Tanker off Oman



Figure & Source: Oil slick off Oman (Planet Labs PBC/Reuters, 2026).

An oil spill involving the Caroline Bezengi, a tanker carrying nearly one million barrels of Russian crude oil, was reported off the coast of Oman on 31 July 2026. The vessel had become stranded near the ecologically sensitive Al Hallaniyat Islands following difficulties in early June. Satellite observations indicated a significant oil slick, with estimates ranging from approximately 400 to 600 square kilometres, raising serious concerns about marine pollution in a protected area.

The incident highlighted the potential impacts of oil spills on marine biodiversity, coastal ecosystems, fisheries, and other marine-dependent activities. It further emphasised the importance of maritime safety, effective spill response mechanisms, satellite monitoring, and international cooperation in preventing and managing marine pollution, particularly in environmentally sensitive regions.

Deadly floods and landslides struck the Nepal–Tibet border region

In late August 2026, severe landslides and flooding affected the Nepal–Tibet border region, damaging settlements, roads, bridges, and hydropower infrastructure. The disaster highlighted the vulnerability of mountainous regions to natural hazards, potentially intensified by climate change. The sudden release of water, mud, and rocks caused widespread destruction, raising concerns about the safety of communities in high-risk areas. It emphasised the importance of glacier and slope monitoring, effective early-warning systems, and improved disaster preparedness to protect vulnerable communities and infrastructure. Regional cooperation and climate-resilient infrastructure are essential to reducing disaster risks and strengthening community resilience.

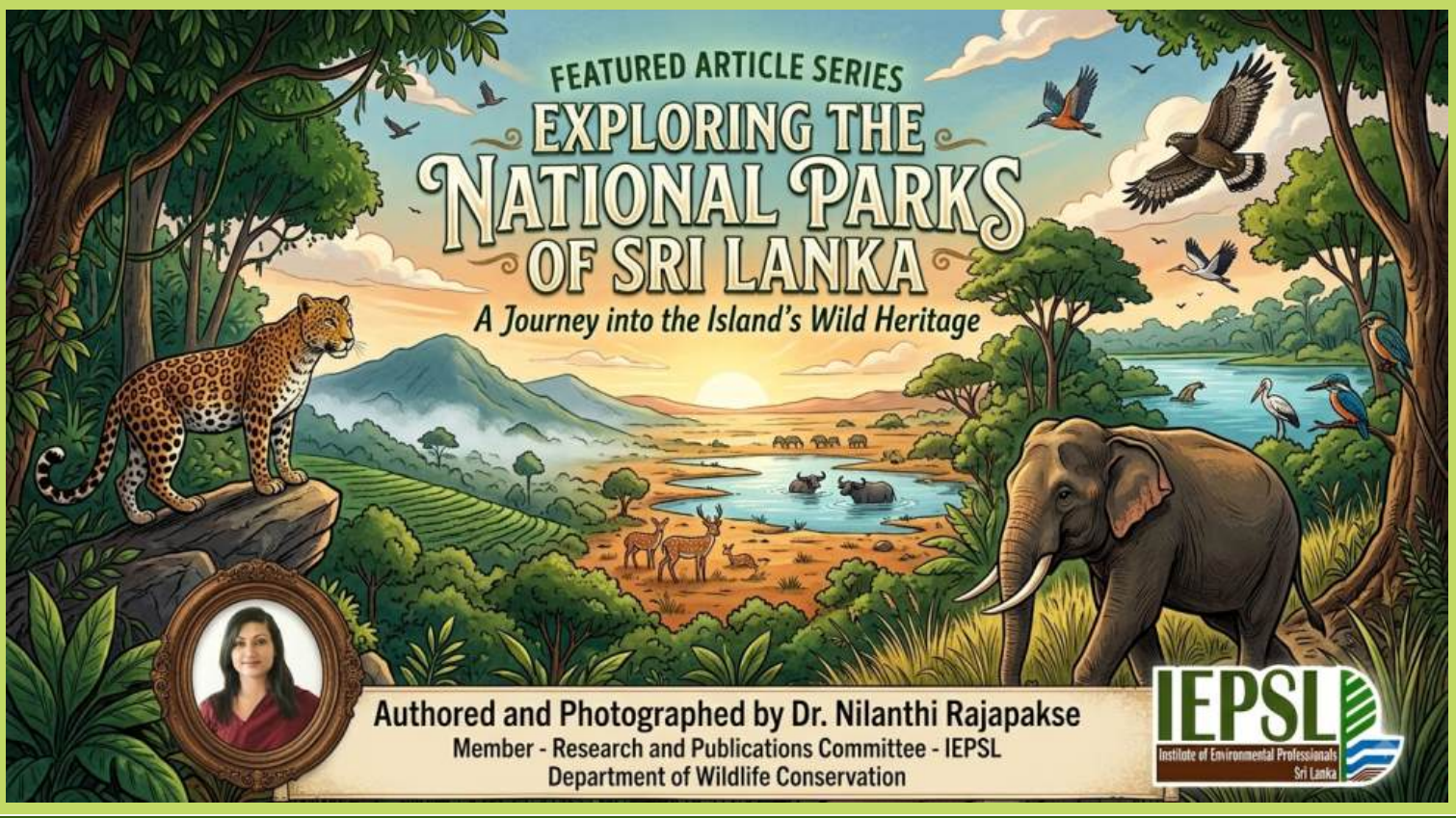


Source: Sky TG24: Satellite images before and after the Nepal–Tibet flood (2026)

IEPSL Blog Updates

Two New Featured Article Series Launched





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