

TURN THE TIDE

NEWSLETTER

Green Psyche Environmental Association,
Faculty of Livestock, Fisheries & Nutrition
Wayamba University of Sri Lanka



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WHY? A NEWSLETTER.

From the Senior Treasurer's Pen,

It is with great enthusiasm that we present the second issue of Turn the Tide, the official bimonthly newsletter proudly initiated by the Green Psyche Environment Association of the Faculty of Livestock, Fisheries, and Nutrition at Wayamba University of Sri Lanka.

This publication serves as a dynamic platform for youth to engage deeply with critical environmental and sustainability issues. Centered on four key themes—Biodiversity Improvement, Climate Change, Food and Nutrition Insecurity, and Green Entrepreneurship—Turn the Tide aims to foster awareness, ignite meaningful discussions, and inspire proactive involvement.

A special highlight of our newsletter, Eco Insights, brings expert voices to our pages, offering innovative perspectives and actionable solutions. Through this feature, we hope to guide and empower young minds toward a collective vision of a greener, more sustainable future.

As we publish our second issue, I am delighted to witness the enthusiasm and commitment of our contributors and readers. We strive to inspire Sri Lanka's youth to reassess their roles in society, understand pressing environmental challenges, and take decisive actions that contribute to meaningful change.

We hope that Turn the Tide continues to spark a sense of purpose and responsibility, encouraging our readers to lead the way in shaping a brighter, greener world. Thank you for being part of this journey—together, we can truly turn the tide!

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HOW KILLING SNAKES ENDANGERS OUR SURVIVAL?

Sri Lanka is home to an incredible diversity of snakes, with 111 species recorded. Of these, approximately 60 are native to the island, showcasing its rich biodiversity. Importantly, most of these snakes are harmless, and only nine species of Sri Lankan land-dwelling snakes are capable of posing a threat to human life. However, Sri Lankans have long engaged in unnecessary conflict with the whole snake community, indiscriminately killing these vital creatures without understanding the adverse consequences.



Misconceptions and Myths Surrounding Snakes

In Sri Lanka, snakes have been shrouded in myths and misconceptions, leading to widespread fear, misunderstanding, and ignorance of their ecological value. A striking example of this ignorance is the indiscriminate killing of many non-venomous snakes, often mislabelled as highly venomous "Habaraliya" and "Mapila". Notably, no species named "Habaraliya" exists, and Mapila (cat snakes) are only mildly venomous, with bites comparable to a bee sting. Even highly venomous snakes play a crucial role in maintaining ecological balance and supporting human survival. Unfortunately, this lack of knowledge has led many to kill snakes on sight, resulting in significant consequences for biodiversity and human well-being.



The Public Health Risk: Leptospirosis and Disease Spread

One of the most concerning impacts of indiscriminate snake killings is the rise in Leptospirosis (Rat Fever) cases, which has led to a tragic loss of lives. Farmers, in particular, are increasingly fearful of working in their paddy fields due to the heightened risk. Snakes such as the rat snake, cobra, and Russell's viper are major predators of rats and mice, the primary carriers of the bacteria that cause this disease.

By reducing snake populations, we inadvertently allow rodent populations to flourish, compounding the risk of Leptospirosis outbreaks—a growing public health concern in Sri Lanka.

Ecological Imbalance: The Decline of Natural Predators

Another alarming consequence is the rise in monkey populations, which has severely impacted crop farming, particularly coconut cultivation. The loss of millions of coconuts annually has dealt a severe blow to this vital economic resource for Sri Lankan communities. A major cause of this imbalance is the decline of natural predators, including the non-venomous python. Pythons are often killed due to misidentification as Russell's vipers or the myth that they swallow humans, despite scientific evidence proving that pythons cannot swallow an adult human, contributing to this conflict.



Snakes in Agriculture: Protecting Crops and Food Security

In the agriculture sector, rodents are a major pest, particularly in grain stores where they damage rice, maize, and other crops, leading to significant losses. Snakes naturally control rodent populations, reducing crop damage and minimizing post-harvest losses. Additionally, snakes help control insect populations that could otherwise become pests, preventing outbreaks that harm crops. In ecosystems, the overpopulation of predators like frogs and lizards can disrupt pollinator populations, including bees and butterflies, which are important for crop pollination. Snakes help regulate these predator numbers, ensuring that pollinator species thrive and maintaining biodiversity.

By killing snakes, rodent, insect, and predator populations could spiral out of control, leading to crop destruction and ecosystem imbalances, which would directly harm food security.

The Need for Education and Awareness

We must shift the narrative surrounding snakes through education and awareness. Dispelling myths and promoting a deeper understanding of their ecological importance are crucial steps toward coexistence. Schools, community organizations, and conservation initiatives can play pivotal roles in changing attitudes and fostering respect for these misunderstood creatures. The survival of snakes is not just about preserving a single species; it is about securing a sustainable future for all. Let us turn the tide of ignorance and fear into one of knowledge and appreciation, ensuring that snakes continue to thrive and contribute to a greener, more balanced Sri Lanka.

"By saving snakes, we save ourselves—our health, agriculture, and future."



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**NURTURING NATURE'S DIVERSITY
FOR BETTER TOMORROW**

YOUR LEFTOVERS: A CLIMATE CRISIS YOU'RE UNKNOWINGLY FUELING

Imagine your leftovers making a one-way trip to the landfill—only to become a silent contributor to global warming. It may sound like a plot from a sci-fi movie, but this isn't a fiction. While many people are aware of food wastage, few truly understand its significant role in climate change. Discussions on environmental pollution often focus on fossil fuels, agriculture, and industrial emissions—major contributors to global warming.

However, what often goes unnoticed is the cumulative impact of everyday food waste. The scraps we discard after each meal may seem insignificant, but when multiplied across households and businesses worldwide, they become a major source of greenhouse gas emissions.

Landfill Woes:

Buried under layers of waste, these materials break down anaerobically—without oxygen—triggering bacterial activity that releases methane—a potent gas that traps heat far more effectively than carbon dioxide. Even in small amounts, its impact on global warming is significant. Without realizing it, our daily habits contribute to an escalating environmental crisis, making food waste one of the most overlooked drivers of climate change.

Scandalous Leftovers:

A staggering one-third of all food produced globally—more than one billion tons—ends up lost or wasted, from farm to fork. This massive scale of waste doesn't just impact human health and nutrition; it also strains economies and damages the environment. These discarded foods contribute significantly to climate change, accounting for roughly 8%-10% of global greenhouse gas emissions. Instead of nourishing people, this excess food is callously discarded,

contributing to rotting landfills and fuelling environmental decay.

Plate to Make a Difference

Every bite counts! We all have the power to make a positive impact on the planet with our food choices. It starts with minimizing food waste right at home by adopting sustainable practices. Plan your meals weekly to reduce impulse purchases and avoid unnecessary leftovers.

Inefficient food management and consumer behaviours only fuel food waste, so shop smart and be mindful—buy only what you need, avoid excessive packaging, and store food properly to prevent spoilage or contamination. Strive for a balance between perishables and non-perishables, compost food scraps to create nutrient-rich soil, and if you have surplus, donate it to food recovery programs.

The small act of reducing food waste—often overlooked—can lead to significant change. Together, we can empower a food-secure and climate-conscious future for generations to come. Let's commit to making a difference by starting with our own plates.

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**CHANGING THE CLIMATE STORY:
AWARENESS TO ACTION**

RETHINKING CONVENIENCE: BREAKING FREE FROM INSTANT FOOD FOR A HEALTHIER FUTURE

Are You Nourishing Yourself?

Each morning, you wake up and step into another demanding day—planning ahead, organizing your workload, and striving toward your goals. But pause for a moment. Have you taken care of yourself? Have you given your body the nutrients it truly needs?

Our bodies require essential vitamins, minerals, and energy to sustain us through busy schedules. Yet, modern lifestyles often push nutrition to the backseat, leading to quick, convenient, and often unhealthy food choices.

The Hidden Cost of Instant Food

Instant and processed foods have become a staple for many, with global consumption rising by 40% over the last decade due to their ease of preparation, appealing flavours, and time-saving nature (Ref). However, behind this convenience lies a growing health concern. Studies show that over 60% of these foods are high in sodium, unhealthy fats, and artificial additives—a major contributor to rising obesity, heart disease, and other health issues.

While these meals offer a quick solution to hunger, they often lack the essential nutrients our bodies need to function at their best. The question remains: Are we sacrificing long-term health for short-term ease?

What's Really in Your Instant Meal?

Instant foods may be marketed as quick and easy, but at what cost? These products often contain three to five times more additives and preservatives (ref) than fresh foods, designed to extend shelf life and enhance flavour. While these ingredients improve taste and texture, they also pose serious health risks. More than 60% of processed foods contain artificial preservatives linked to allergies, hormone disruption, and even carcinogenic effects.

High sodium content in these meals often exceeds the WHO's recommended daily limit of 2,000 mg per serving, contributing to hypertension and heart disease. Additionally, the trans fats found in many instant foods increase the risk of obesity, diabetes, and stroke.

The Risks of Processed Foods

What's even more alarming is the lack of essential nutrients in processed meals. Instant foods typically provide little to no vitamins, antioxidants, or fiber—nutrients that are crucial for immunity and overall well-being. Instead, they are packed with unhealthy fats and refined carbohydrates that cause energy crashes and long-term metabolic imbalances.

Without proper nutrition, our bodies struggle to maintain focus, energy, and resilience. This raises a critical question: Is the convenience of instant food worth the long-term harm to our health?

Convenience vs. Well-Being: Are We Making the Right Choice?

Despite these risks, instant food remains a go-to choice for many. The appeal of convenience often overshadows concerns about health. But in reality, healthy eating doesn't have to be time-consuming or complicated.

A well-balanced diet rich in whole grains, fresh vegetables, lean proteins, and healthy fats can boost energy, enhance focus, and promote long-term well-being. It's about making simple yet mindful choices that prioritize health without disrupting daily routines.

Simple Swaps for a Healthier Diet

Making small changes in our eating habits can lead to a significant impact. Here are some easy swaps to transition toward a healthier lifestyle:

- Replace instant noodles with boiled vegetables or hearty roots like sweet potatoes for a nutritious and filling meal.
- Swap sugary drinks for fresh fruit juice or herbal infusions to avoid artificial sweeteners and preservatives.
- Choose fresh fruits over packaged snacks to increase fibre intake and boost natural energy.
- Opt for whole grains like brown rice, quinoa, or oats instead of processed white flour products.

These small, effortless adjustments don't take extra time—but they do take intention. By choosing better alternatives, we nourish our bodies and enjoy long-term health benefits.

Leading the Change: The Morning Porridge Programme

As undergraduates, fostering a healthier and more sustainable lifestyle is our collective responsibility. We've taken a step forward with the Morning Porridge Programme, an initiative led by the Green Psyche Environmental Society of our faculty.

Using locally available, minimal-input crops, we provide essential morning nutrition to our fellow students. This program is more than just a meal—it's a statement that healthy choices are possible, practical, and sustainable.

Every morning, we prepare and serve a nutritious herbal drink, proving that eating well is not about time constraints but about the willingness to make better choices.

Your Health, Your Choice: Take the First Step
Change is possible—all it takes is the first step. The choice is yours:

- Will you continue relying on instant food at the cost of your health?
- Or will you make small, meaningful changes toward a more balanced lifestyle?

The power to break free from unhealthy habits is in your hands. Start today, and fuel your future with mindful, nourishing choices.

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Snapshots from our morning porridge programme....



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SUSTAINING TOMORROW: EMPOWERING NUTRITION FOR ALL

BEYOND GREEN: HOW ECO-ENTREPRENEURSHIP EMPOWERS THE NEXT GENERATION

The Financial Dilemma of Youth: A Call for Change
As an undergraduate, I constantly interact with peers from diverse cultural backgrounds. One striking observation is the high value they place on financial independence—yet, paradoxically, many still rely on parental support. Isn't this a tragedy? In stark contrast, students in Western countries often balance part-time jobs or small businesses to cover their tuition fees and daily expenses. This self-sufficiency fosters resilience, adaptability, and a deep understanding of financial responsibility.

As a socially responsible young individual, I ask: What is the most effective way to achieve financial independence beyond traditional methods? The answer lies in green entrepreneurship—an approach that not only sustains individuals but also nurtures the planet.

The Power of Green Entrepreneurship

Green entrepreneurship is about creating businesses that are good for both people and the environment. It emphasizes sustainability, innovation, and community well-being. As a green entrepreneur, you develop solutions that protect the planet while generating profit. This means advocating for renewable resources, reducing waste, and adopting eco-friendly practices.

Beyond financial gain, green entrepreneurship makes education more dynamic and relevant by immersing students in real-world problem-solving. It teaches the crucial balance between economic goals and environmental impact—an essential skill in today's world.

Green Mabela: A Beacon of Self-Sufficiency

At Wayamba University of Sri Lanka, we proudly uphold this concept through our Green Marbella Project—a shining example of self-sufficiency.

This initiative enables students to cover daily expenses by selling porridge made from locally sourced ingredients.

Taking it a step further, we identified unused land close to our university and transformed it into a vertical garden. But this is no ordinary garden. It is a carefully cultivated space where we grow nutrient-rich, low-maintenance herbs organically, reflecting our deep commitment to sustainability. This garden ensures a continuous supply of ingredients for Green Marbella while generating income and fostering independence among students.

More Than Just Business: A Way of Life

Being a green entrepreneur is not just about running a business—it's a journey of personal and professional development. Efficient income management ensures resources are wisely allocated, balancing profitability with sustainability.

Beyond financial benefits, green entrepreneurs play a crucial role in environmental conservation. Their sustainable practices reduce waste, conserve natural resources, and lower carbon footprints. By promoting renewable energy, sustainable agriculture, and eco-friendly products, they contribute to climate change mitigation, biodiversity protection, and the preservation of ecosystems. More importantly, their efforts inspire communities and businesses to adopt greener practices, creating a ripple effect of positive environmental impact.

A Global Responsibility

Encouraging the green concept is not just vital for Sri Lanka—it is crucial for the world. The silent nature around us demands more attention and respect.

By raising societal awareness and fostering collective responsibility, we can protect and preserve our planet for future generations.

The Takeaway: Turning Pressure into Strength

Like diamonds formed under immense pressure, life's challenges mold us into stronger, more resilient individuals. Green entrepreneurship is more than an economic pursuit—it is a transformative force that shapes self-reliant, environmentally conscious leaders. As we embrace this path, we don't just build businesses; we build a sustainable future for ourselves and generations to come.

Snapshots of our ongoing journey—transforming unused land into a productive, sustainable landscape. The work continues!



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**SUSTAINABLE SUCCESS: INNOVATING
FOR A GREENER TOMORROW**

EXPERT VOICES FOR A GREENER TOMORROW

Designing for the Future: Breaking the Cradle to Grave Habit

Let's imagine; a bottle of cream soda quenches your thirst in seconds. But where does the bottle go after you toss it away? Maybe it ends up in a landfill, taking centuries to decompose. Or worse, it drifts into the ocean, becoming a permanent part of an ever-growing island of plastic. This is the reality of our "cradle-to-grave" world—a system we designed where every product has a beginning, a use, and an abrupt end.

Nature doesn't work this way. When a tree sheds its leaves, they decompose, enriching the soil and feeding new life. Nothing in nature goes to waste. But humans, in all our ingenuity, broke this perfect cycle. We've built a linear system where the life of a product—from its creation to its disposal—leaves behind piles of waste and scars on the planet.

Think of your smartphone. It's sleek, indispensable, and loaded with over 60 rare materials, some mined at a heavy environmental cost. But once it's obsolete, it joins the 50 million tons of e-waste we produce annually. What happens to the metals, the plastic casing, and the batteries? Most of it ends up poisoning ecosystems instead of being repurposed.

This "**cradle-to-grave**" system isn't just an environmental problem—it's a design flaw. It's a story of unfinished cycles, as the future innovators of our world, you have the power to rewrite that story.

Why This Matters

Our broken system is not just about the things we throw away; it's about missed opportunities. What if that discarded cream soda bottle could become a new one? Or your broken smartphone could be disassembled, with each part recycled into the next generation of devices?

This isn't just wishful thinking—it's the foundation of a "**cradle-to-cradle**" approach, a system where waste becomes the raw material for something new.



Your Role

Here's the challenge: How do we re-imagine the things we use every day to fit into nature's perfect cycle? As designers, and innovators, you hold the keys to a better system. Could you create a laptop whose components live on after its use? Or redesign packaging that disappears into the soil instead of polluting it?

The "**cradle-to-grave**" concept is a wake-up call, but it's also a call to action. We've inherited a broken system, but we have the tools to fix it. The question isn't just about what we create but how we design a world where nothing truly dies. We should start designing where every end is a new beginning.

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Preserving Paradise: Sustainable Management of Up Country Wet Zone - Sri Lanka

The Up-Country wet zone of Sri Lanka, once dominated by primary rainforests, has undergone significant ecological transformations since the colonial era. These changes—spurred by deforestation for coffee and later tea plantations—have disrupted biodiversity and destabilized ecosystems, leaving a profound impact on this critical region.

A Biodiversity Hotspot Under Threat

Historically, the montane evergreen forests of the Up Country wet zone harbored the richest species diversity in Sri Lanka. These forests play a vital role as catchment areas for major rivers such as the Mahaweli, Kelani, Kalu, and Walawe, supporting downstream agriculture and human livelihoods. Recognizing their importance, ancient rulers enforced conservation practices. However, the colonial introduction of monoculture plantations and invasive species has significantly undermined this ecological balance.

Invasion of Non-Native Species

Invasive plants, often introduced intentionally or accidentally, have proliferated throughout the Up Country wet zone. Recent culprits include *Inga edulis* (Ice Cream-bean) and *Calliandra calothyrsus*, alongside aggressive invaders like *Austroeupatorium inulifolium*, *Clusia rosea*, and *Psidium cattleianum*. These species not only outcompete native flora but also alter ecosystem dynamics, paving the way for invasive fauna such as rodents and birds.

Alarmingly, even some native species, including *Panicum maximum* and *Persicaria wallichii*, have turned invasive under shifting environmental conditions. This unchecked spread diminishes biodiversity, disrupts ecological functions, and threatens the balance of these delicate ecosystems.

Agrochemicals and Pollution

The extensive use of agrochemicals in plantation agriculture has further compounded the ecological crisis. Heavy rains leach these chemicals into waterways, degrading soil health and contaminating aquatic ecosystems.

This pollution disrupts both aquatic and terrestrial life, triggering cascading effects on biodiversity.

Habitat Fragmentation and Wildlife Decline

Human settlement expansion within plantation landscapes intensifies ecological pressure. Domestic animals, coupled with illegal hunting, have encroached on habitats, reducing food sources for endemic species like the Wild Boar (*Sus scrofa*), Togue Monkey (*Macaca sinica*), and Sambar Deer (*Cervus unicolor*). Habitat fragmentation and competition for resources are pushing many native species closer to extinction.

Monocultures: A Silent Threat

Eucalyptus plantations, introduced in the 1930s, further erode biodiversity. Often established on degraded grasslands, these monocultures support minimal biodiversity and frequently harbor invasive species. The dense canopy of Eucalyptus alters wind patterns and microclimates, intensifying degradation of adjacent cloud forests.

A Call to Action: Sustainable Management Strategies

Despite the challenges, the Up Country wet zone's ecological future can be safeguarded through sustainable practices. Key strategies include:

- **Biodiversity Integration:** Incorporate conservation measures into plantation management practices.
- **Organic Farming:** Reduce reliance on agrochemicals by promoting organic farming methods.
- **Invasive Species Control:** Employ biological and mechanical methods to manage invasive plants.
- **Habitat Connectivity:** Protect and expand forest patches to ensure natural habitat linkages.

Policymakers must strike a balance between economic development and ecological preservation to secure the region's future. Public awareness campaigns and active community participation are crucial to fostering environmental stewardship and sustainable practices.

Preserving a Legacy

While fully restoring the pre-colonial richness of the Up Country wet zone may be unfeasible, concerted efforts can maintain its biodiversity and ecological functions.

Prioritizing sustainable resource management and conservation initiatives will strengthen the resilience of this critical region, harmonizing environmental and economic goals for generations to come.

By preserving this ecological treasure, Sri Lanka can ensure that the Up Country wet zone continues to thrive as a sanctuary of biodiversity and a cornerstone of sustainable development.



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Heatwave Projection over Colombo: A Climate Challenge for the Future

Why Heatwaves (HW) Matter

Anthropogenic greenhouse gas emissions have significantly raised mean temperatures and altered extreme temperature patterns globally. The World Meteorological Organization highlights the recent decade as the warmest on record. Heatwaves, characterized by their intense, prolonged, and widespread effects, pose a severe risk to human health and ecosystems. Traditionally, these extreme weather events have been most severe in large landmasses like India, Australia, Europe, and parts of the United States. For instance, India regularly experiences intense and prolonged heatwaves during summer. In contrast, Sri Lanka, with its maritime climate and smaller land area, has historically faced fewer heatwaves. However, emerging projections indicate that Colombo, Sri Lanka's capital, is set to witness a significant increase in heatwave activity.

Heat Waves (HW) Identification

Although there is no universal definition of a HW, in general, it is defined as an extremely hot period of few consecutive days, usually ranging from a minimum of three to five days. Based on this general definition, a wide variety of methods largely described in scientific literature have been developed to quantify HWs and their variables (Perkins and Alexander, 2013; WMO/WHO, 2015).

Usually, HWs can be defined as a sequence of consecutive days with air temperature exceeding a certain high percentile threshold, commonly between 90th and 99th (Keellings and Waylen, 2014). Recently, Expert Team on Sector-Specific Climate Indices (ET-SCI) of the WMO Commission for Climatology and Indices (CCI), in cooperation with sectorial experts in agricultural meteorology, water resources and hydrology, and health, recommended a set of indices to assess a wide range of variables of HWs covering intensity, duration, and frequency (Alexander and Herold, 2016). In this paper, those indices were used.

The combination of the two types of data sets (Maximum temperature (Tx) and Minimum temperature (Tn)) and the three HWs variables resulted in a set of 10 indices for Colombo considered for period from 2020 to 2099 for two emission scenarios RCP 4.5 (moderate emission) and RCP 8.5 (high emission). The indices are briefly described in Table 01.

Two HW definitions were considered as described below:

- at least three consecutive days when Tx > 90th percentile (Tx90);
- at least three consecutive days when Tn > 90th percentile (Tn90).

The choice of at least three consecutive days for HW indices calculation was justified by studies of human responses to onset of extremely hot weather in which it takes three consecutive days of very hot weather in order the mortality rate to rise significantly above its antecedent rate (Nairn and Fawcett, 2015).

Table 01: Heat wave indices considered for Colombo

Variable	Index	Definition	Units
HW number (HWN)	Tx90 and Tn90	The number of individual HWs calculated based on Tx and Tn in a year	Events
HW duration (HWD)	Tx90 and Tn90	The length of the longest HW identified by HWN calculated based on Tx and Tn in a year	Days
HW frequency (HWF)	Tx90 and Tn90	The number of days that contribute to HWs as identified by HWN calculated based on Tx and Tn in a year	Days

Source: Alexander and Herold, 2016

The Alarming Projections

Recent studies using the MRI-CGCM3 climate model predict that by 2100, Colombo will experience more frequent, longer, and more intense heatwaves under both moderate and high emissions scenarios. The implications are severe: increased mortality, strained public health systems, and compromised natural ecosystems. This isn't just a prediction; it's a preview of what could happen if emissions continue unrestrained.

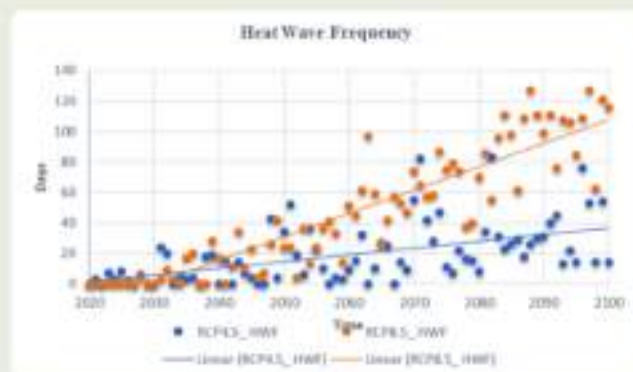


Fig 1: Time series of HW frequency (days) from 2020 to 2100 at Colombo for moderate emission scenario (RCP 4.5) (Blue, circles), and high emission scenario (RCP 8.5) (Red circles).

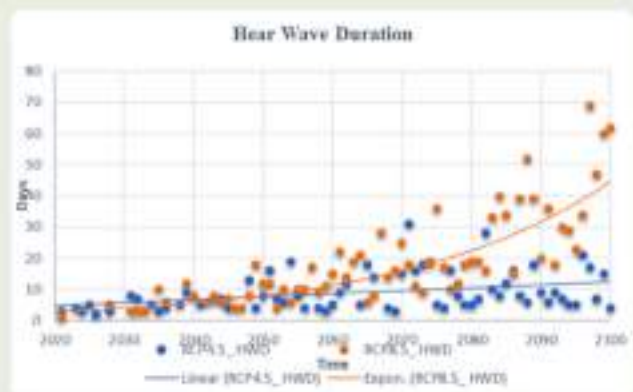


Fig 2: Time series of HW duration (days) from 2020 to 2100 at Colombo for moderate emission scenario (RCP 4.5) (Blue, circles), and high emission scenario (RCP 8.5) (Red circles).

Urban Heat Island Effect

The increasing trend of HW in Colombo, a densely populated city, in the future climate will make the population more vulnerable to the impact of HWs. The consequence of future HWs might be severe; therefore, there is an urgent need to prepare a strategy to deal with its likelihood consequences. Further, high humidity compounds the effects of the temperatures being felt by human beings.

Extreme heat can lead to dangerous, even deadly, consequences, including heat stress and heatstroke. People over 65 are especially vulnerable to the impacts of HWs. This is due to age related decline in the ability to regulate body temperature. Workers at risk from exposure to extreme heat include those who work outdoors, such as construction workers and builders, maintenance workers, and farmers. Early warning systems can enhance the preparedness of decision-makers. In response to the mortality and morbidity of heat-wave events, it is important to have HW early warning systems. HW early warnings are designed to reduce the avoidable human health consequences from HWs through timely notification of prevention measures to vulnerable populations.

While the effects of heat may be exacerbated in cities like Colombo, due to the urban heat island effect, the livelihoods and social wellbeing can also be severely disrupted during and after periods of unusually hot weather. Urban surfaces such as roads and roofs absorb, hold, and re-radiate heat, raising the temperature in our urban areas. This effect is often worsened by development activity when green spaces are replaced with more hard surfaces that absorb heat and human activities such as traffic, industry, and electricity usage generate heat that adds to the urban heat island effect.

A Call to Action

The fight against heatwaves is a race against time. It requires a collaborative approach involving government action, community initiatives, and individual commitment. Implementing early warning systems and improving emergency responses can save lives, but real change demands integrating climate resilience into all facets of urban planning.

The Path Forward

As we stand on the brink of increasingly extreme climate conditions, the decisions we make today will determine the severity of future heatwaves. Colombo's future could be marked by thriving green landscapes that buffer the harshness of rising temperatures, or it could falter under the escalating onslaught of heat. Let's choose a cooler, greener path forward, ensuring Colombo remains vibrant and livable for generations to come.

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Growing Your Own Green Space: Simple Steps to Start Home Gardening for Health and Happiness

The benefits of Home Gardening

We love plants, and they are incredibly useful in our lives from the beginning to the end. In our home gardens, we cultivate various categories of plants based on personal interests. These include food crops, ornamental plants, herbs, Ayurvedic plants, and spices. Having a home garden allows you to access fresh and healthy produce daily for your consumption, to share with friends and family, or to sell any excess.

Your plants continuously provide fresh air for breathing and attract birds and insects, contributing to increased biodiversity. Gardening also helps you engage in physical exercise, burn excess calories, and shape your body. Most importantly, home gardening improves your mental well-being by relieving stress. Additionally, your home garden has a positive environmental impact by reducing your carbon footprint. Sharing gardening tips and produce also fosters community building.

Choosing right plants for your space

Selecting plants for your garden mainly depends on factors such as space, rainfall, light intensity, climatic conditions, pests and diseases, as well as your specific requirements. Choosing a diverse range of plant species for your garden ensures continuous production and creates extremely high biodiversity.

Eco-friendly practices

Eco-friendly practices in home gardens ensure environmental sustainability. The use of organic fertilizers generated from household waste and plant materials helps improve the eco-friendliness of your garden. Always encourage chemical-free pest and disease control in your home garden. Frequent monitoring, including during nighttime, and hand-picking pests is a good practice to minimize the use of chemicals. Additionally, selected plant extracts can be used to repel common pests and protect your valuable plants.

Nurturing your plants

Plants require both major and minor nutrients at the correct time and in the correct dosage. They do not specifically select organic or inorganic fertilizers for their growth. It is essential to provide the right nutrients at the right time for optimal performance. Both organic and inorganic fertilizers can be used in the required quantities to maintain healthy and vigorous plant growth. Continuous use of organic fertilizers improves soil properties and supports a healthy population of soil microorganisms. Additionally, organic fertilizers help maintain higher soil moisture content and facilitate oxygen availability for plants.

Overcoming challenges

Common challenges faced by crops in home gardening include pests and diseases. Initially, you may notice little to no pest attacks on your crops, but over time, the incidence of pest attacks will increase. Monitoring is crucial, and it is important to handpick and remove pests. Snails, caterpillars, mealybugs, and other insects are quite common. You need to monitor your garden both during the day and at night for effective pest control

From seed to table

Leafy vegetables can be harvested fresh within a few weeks of planting, whenever you need them for your table. The majority of horticultural crops can be harvested within two to three months of planting. Since you can harvest them fresh, you get to enjoy the real taste. Fresh fruit harvesting can be practiced daily, allowing you to enjoy fresh fruits and fruit juices frequently, directly from your home garden. You can also enjoy watching some of your fruits being harvested by birds and other animals.

Here are a few snapshots of my home garden, a space I truly enjoy.



Karawala Kabbala (*Antidesma lunata*)



Karawala Kabbala ready to eat fruit



Jamoon Fruit (*Carissa carolinensis*)



Jamoon ready to eat fruit



Thumba Karawila (*Momordica dioica*)



Diya Labu (*Lagenaria siceraria*)



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Building a sustainable future: Green psyche's Milestones

Milestone Visit: Anavilundawa Ramsar Wetland

On January 11th, faculty students embarked on a remarkable field visit to the Anavilundawa Ramsar Wetland, organized by the Green Psyche Environmental Association. This visit was a significant opportunity to explore the rich biodiversity of this internationally recognized wetland and deepen our awareness of nature.

Guided by Mr. Dayarathne, a retired postmaster and a knowledgeable villager, we identified a diverse range of plant and bird species, gaining valuable insights into their ecological significance and functional benefits. We also reflected on the challenges threatening the existence of this vital ecosystem.

A highlight of the visit was walking silently along the footpath, fully immersed in the sounds and rhythms of nature. For many of us, it was the first time experiencing such a profound connection with the natural world—an unforgettable moment of appreciation and respect for the environment.

This milestone visit not only enhanced our understanding of biodiversity but also deepened our commitment to conservation and sustainability.



A vertical garden to popularize Underutilized Crops Among Youth

In a remarkable step toward sustainable agriculture, our students have initiated a vertical garden in Sandalankawa, on a plot of land near the university that belongs to one of our lecturers but is currently unused. This innovative project aims to cultivate a variety of underutilized crops, particularly those suitable for porridge preparation, while ensuring a continuous supply of leafy greens for our Green Mabela porridge program.

Dedicated to this initiative, we devote our free time in the evenings to nurturing the garden, transforming an idle space into a hub of sustainability and nutrition. This effort not only promotes the value of lesser-known crops but also instills a sense of responsibility and environmental stewardship among young people.

As passionate and proactive youth, we take pride in contributing to a healthier and more sustainable future—one that embraces biodiversity, food security, and the power of collective action.



The Ancient Bounty: Rediscovering Sri Lanka's Forgotten Crops

Our environmental society is proud to announce "The Ancient Bounty", a remarkable initiative dedicated to reviving Sri Lanka's rich agricultural heritage. This project celebrates the wealth of over 300 underutilized yet nutrient-dense crops that once thrived across the island.

Thanks to the dedication of our team, we have successfully identified and documented these forgotten treasures, highlighting their functional and nutritional benefits. Volume 1 of "The Ancient Bounty" will mark the beginning of our journey to preserve and promote these invaluable crops for future generations.

Stay tuned for more updates as we work towards sustainable solutions that honor Sri Lanka's agricultural legacy!

"LET'S TURN THE TIDE" CALLING ALL AUTHORS!

THE NEWSLETTER PUBLISHED BY,
GREEN PSYCHE ENVIRONMENTAL ASSOCIATION,
FACULTY OF LIVESTOCK FISHERIES & NUTRITION,
WAYAMBA UNIVERSITY OF SRI LANKA

"Turning the Tide" is a periodic newsletter published by the Green Psyche Environment Association of the Faculty of Livestock Fisheries and Nutrition at Wayamba University of Sri Lanka. Its primary objective is to provide an open platform for undergraduates, fostering awareness, discussion, and engagement in environmental and sustainability issues.

We hope this newsletter will inspire youth in Sri Lanka to reassess their social responsibility, gain a clearer understanding of our current environmental trajectory, raise awareness among their peers, and take meaningful actions towards a sustainable future/tomorrow.



We look forward to reading your thought-provoking contributions!

GUIDELINES:

- **Focus on Impact:** Make sure your submission clearly aligns with the theme, delivering a powerful takeaway that leaves a lasting impression.
- **Concise & Captivating:** Limit your piece to 350-400 words, ensuring each word counts.
- **Engage Your Readers:** We prioritize articles that capture attention and inspire action, so craft a message that resonates.
- **Creative Freedom:** While your article structure is up to you, ensure it flows logically and effectively develops your topic.
- **Keep It Simple:** Strive for clarity and simplicity, avoiding unnecessary complexity.
- **Compelling Narrative:** Feel free to inject energy into your writing—craft a lively narrative that keeps readers hooked from start to finish.
- **Seamless Transitions:** Ensure smooth transitions between paragraphs, guiding the reader effortlessly through your thoughts.
- **Polished & Dynamic:** Lastly, make sure your grammar and language contribute to a dynamic, readable style.

KEY THEMES

Biodiversity Enhancement

"Nurturing Nature's Diversity
for Better Tomorrow"

Climate Change Awareness and Mitigation

"Changing the Climate Story:
Awareness to Action"

Combatting Food and Nutrition Insecurity

"Sustaining tomorrow:
Empowering Nutrition for All"

Green Entrepreneurship

"Sustainable Success: Innovating
for a Greener Tomorrow"

Submit your Articles to:
greenpsychewusl@gmail.com

INTO THE CLUB

VISION

A life-sustaining civilization that ensures a healthy communication triad: human himself, human - human, human - nature.

MISSION

Actively dedicating for the building of the human resource that is required for the sustainable existence of life on Earth.



Dr. T. Ursula S. Pieris
Editor
Turn the Tide Newsletter



Bashitha Samarakoon
Designer
Turn the Tide Newsletter

OBJECTIVES

- Overcome the over-consumption mindset of Sri Lankans with regard to environment.
- To promote the positive attitudes among Sri Lankans regarding the well-being of the nature.
- To bring about a transformation of the public consciousness leading towards a sustainable lifestyle.
- To mediate the development of agriculture and natural environment aiming at a sustainable lifestyle.
- Creation and promotion of other activities that fulfil the aforementioned mission.
- Reduce the University's ecological footprint, improve quality of life on-campus, create a legacy of sustainability at Wayamba University, enrich the community and contribute to global sustainability.
- Cultivate self-sufficiency, land stewardship, and ethical consumerism in the minds of students and the community.
- Emphasize organic living practices and locally-centered lifestyles.
- Provide education, fellowship, activities, and opportunities through student participation in sustainability.

We gratefully acknowledge the hard work and participation of everyone who contributed to this endeavor.

Editorial board, Turn the tide Newsletter



TURN THE TIDE NEWSLETTER

Green psyche Environmental Association,
Faculty of Livestock, Fisheries and Nutrition,
Wayamba University of Sri Lanka.



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