



# ASEAN's Largest Sustainability Exposition



SUSTAINABILITY EXPO 2024



# ASEAN'S LARGEST SUSTAINABILITY EXPOSITION GOOD BALANCE, BETTER WORLD

27 SEPTEMBER - 6 OCTOBER 2024

QUEEN SIRIKIT NATIONAL CONVENTION CENTER

# CONTENT

## SUSTAINABILITY EXPO 2024

#### INTRODUCTION

Discover the SUSTAINABILITY EXPO, now in its fifth edition, and delve into the Sufficiency Economy Philosophy through an inspiring keynote lecture by Dr. Sumet Tantivejkul, Secretary-General of the Chaipattana Foundation.

#### **MAIN EXHIBITIONS**

Explore inspiring success stories of leading organizations in sustainable development, gain valuable insights into achieving life balance at every stage of life, and discover innovative ideas for building an equitable and livable society, all showcased across four main exhibition zones.

- SEP INSPIRATION
- BETTER ME
- BETTER LIVING
- BETTER COMMUNITY

#### **CONVERSION ZONES**

To ensure every aspect of life moves towards sustainability, the Conversion Zones at SUSTAINABILITY EXPO 2024 focus on fostering lifestyle changes across all dimensions—consuming, playing, and daily living—creating a sustainable future for every facet of life.

- BETTER WORLD
- SX FOOD FESTIVAL
- SX KIDS ZONE
- SX MARKETPLACE
- SX REPARTMENT STORE

TRANSFORM
Explore diverse sessi

**TALKS THAT** 

Explore diverse sessions and workshops led by expert speakers, featuring thought-provoking discussions and hands-on activities. These sessions encourage discussions and collaborative efforts aimed at achieving a better balance and a better world.

# INTERACTIVE ACTIVITIES & COLLABORATIONS

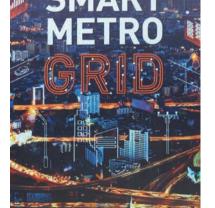
Since driving sustainability requires collective effort, SUSTAINABILITY EXPO 2024 offers a diverse array of activities designed to inspire and promote collaboration across sectors, both nationally and globally.

- SX SHAPER AWARD 2024
- SEP SIGNING CEREMONY
- SX HACKATHON 2024 x CIRCULAR INNOVATION CHALLENGE
- SX PARTNERSHIP FOR THE GOALS: TSCN BUSINESS PARTNER CONFERENCE
- SX YOUTH SPEECH CONTEST 2024
- SOCIAL ENTERPRISE FORUM 2024
- WIN WIN WAR THAILAND SEASON 6
- THAILAND CLIMATE ACTION CONFERENCE 2024
- ANNUALMEETINGOFTHEWORKING COMMITTEE FOR GRASSROOT COMMUNITY DEVELOPMENT

- PACKBACK IN ACTION YEAR 3: THE DRIVE FOR EPR IN THAILAND
- EST COLA CHANGES BOTTLES FOR A BETTER WORLD
- CHARITY CONCERTS FOR FLOOD-DEVASTATED SCHOOLS
- ESG SYMPOSIUM 2024
- SX SHAPER POINT
- CPF SUSTAINABILITY IN ACTION AWARD 2024
- CHIEF SUSTAINABILITY OFFICERS (CSO) FORUM
- ASEAN CIRCULAR ECONOMY FORUM 2024 (ACEF)
- AUSTRALIAN GREEN ECONOMY MISSION TO THAILAND
- SWEDEN-THAILAND SUSTAINABLE DEVELOPMENT FORUM 2024
- NIKKEI DIGITAL FORUM IN ASIA SUSTAINABLE SOCIETY & SOLUTION SUMMIT
- THAI-SWEDISH SUSTAINABLE WATER FORUM 2024

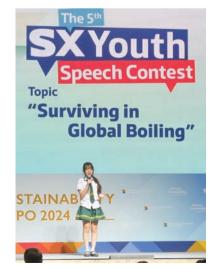
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Her Royal Highness Princess Maha Chakri Sirindhorn graciously attended the SUSTAINABILITY EXPO 2024 at the Queen Sirikit National Convention Centre on 1 October 2024.

























SUSTAINABILITY EXPO 2024

BECAUSE SUSTAINABILITY
IS EVERYONE'S RESPONSIBILITY
LET'S WORK TOGETHER
TO FOSTER A GOOD BALANCE
FOR A BETTER WORLD

From the inception of THAILAND SUSTAINABILITY EXPO 2020 at Samuan Mitrtown, where 78 network organizations and 50 sustainability experts came together to engage 10,247 visitors over four days, to the remarkable success of SUSTAINABILITY EXPO 2024 (SX2024), the largest sustainability event in ASEAN. Held across more than 70,000 square metres at Queen Sirikit National Convention Centre, SUSTAINABILITY EXPO 2024 attracted over 740,000 attendees, both on-site and online, over 10 days. This continuous and dedicated effort reflects the expo's commitment to driving meaningful action through collaborative partnerships from all sectors. This year, the event was supported by 270 organizations and 750 sustainability professionals from Thailand and around the world, all of whom are leaders in their respective fields. Together, they aim to create a "Good Balance for a Better World." SUSTAINABILITY EXPO 2024 was made possible through the combined efforts of five globally recognized leaders in sustainability: Frasers Property (Thailand) Public Company Limited, PTT Public Company Limited, SCG, Thai Beverage Public Company Limited, and Thai Union Group Public Company Limited, along with the Thailand Supply Chain Network (TSCN). This year's expanded network includes collaborations with government agencies, private organizations, civil societies, embassies, and international bodies, symbolizing a powerful collective commitment to fostering a Decade of Action focused on achieving balanced, sustainable growth in the economic, social, and environmental spheres, ensuring a more sustainable and livable future for all.





















Since its inception, the theme "Sufficiency for Sustainability" has served as the cornerstone of the event, inspired by His Majesty King Maha Vajiralongkorn's royal directive to continue, preserve, and build upon the royal legacy for the well-being of the Thai people. This vision aligns closely with the Sufficiency Economy Philosophy (SEP) introduced by His Majesty King Bhumibol Adulyadej the Great. Furthermore, the event embraces the United Nations Sustainable Development Goals (SDGs), emphasizing the Decade of Action to achieve all 17 goals through five key dimensions: People, Planet, Prosperity, Peace, and Partnership.

The SUSTAINABILITY EXPO also serves as a collaborative platform designed to bring people together to exchange, learn, and drive positive change for a better world.

It promotes "Good Balance, Better World" through the B2C2B (Business-to-Consumer-to-Business) approach, in which large organizations (Businesses) share knowledge and inspire consumers (Consumers), while fostering connections with businesses (Businesses) to collectively advance sustainability.

Mr. Thapana Sirivadhanabhakdi, Group Chief Executive Officer of Thai Beverage Public Company Limited and Chairman of the SUSTAINABILITY EXPO 2024 Organizing Committee, shared, "This year, the SUSTAINABILITY EXPO has strengthened its network of partners to advance sustainable development across all sectors—government, private sector, civil society, embassies, and a diverse group of sustainable businesses from leading organizations both in Thailand

and internationally, totaling over 270 participants. Together, we aim to share knowledge, promote balance for a better world, drive meaningful action, and embrace the Business-to-Consumer-to-Business approach, with consumers at the center of linking businesses, fostering collaboration, and sustaining a continuous cycle of sustainable growth."

Mr. Panote Sirivadhanabhakdi, Group Chief Executive Officer of Frasers Property Limited, emphasized, "We bridge businesses with people, strengthening both enterprises and communities by considering the impact on individuals and the environment." Dr. Kongkrapan Intarajang, Chief Executive Officer and President of PTT Public Company Limited (PTT), highlighted, "PTT is dedicated to sustainable development alongside

our business operations, guided by the concept of 'Balanced Sustainability.' Through collaboration within the PTT Group, we aim to drive economic growth and achieve net-zero emissions by 2050. PTT is committed to promoting the idea of collective action, inspiring all sectors to recognize the importance of meaningful, collaborative efforts that drive impactful changes for both people and the environment, fostering a balanced and sustainable future." Mr. Thammasak Sethaudom, President and Chief Executive Officer of SCG, stated, "Collaboration is the driving force behind transforming the world and addressing pressing global challenges. SCG is committed to advancing green innovations across multiple areas to enhance everyone's quality of life while fostering collective action to reduce carbon emissions and create a more sustainable and

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livable planet." Additionally, Mr. Thiraphong Chansiri, President and Chief Executive Officer of Thai Union Group Public Company Limited, emphasized, "We consider sustainability as our License to Operate, and it requires a unified effort for success. At Thai Union, sustainability lies at the heart of our business, with a focus on creating a better future for both people and the planet. Through our hands-on approach, guided by our SeaChange® 2023 strategy, we aim to pass down the vitality of the sea-Healthy Living, Healthy Oceans-to future generations, promoting positive, sustainable change in the seafood industry and beyond."

This year's event attracted a significant number of youths, students, and college students, with a total of 246,181 participants, accounting for 62.5% of all attendees. Additionally, over 200,000 people downloaded the SX Application. Across all five editions of the SUSTAINABILITY EXPO, more than 1.2 million people have engaged, contributing over 100 million baht to local communities. The SX MARKETPLACE generated over 18 million baht from 281 vendors, while the SX REPARTMENT STORE received more than 4,000 donated items, generating over 80,000 baht from the sale of second-hand goods.

In addition to its past successes, SUSTAINABILITY EXPO has further strengthened tangible collaboration across sectors both within Thailand and internationally. This year, more than 20 international organizations participated in exhibitions. The event also adopted a more concrete B2C2B approach, highlighted by key initiatives such as the declaration of sustainability practices by partners within the Thailand Supply Chain Network (TSCN) and the presentation of the SX TSCN Sustainability Award to 48 partners. These partners collaborated with TSCN co-founders on sustainable projects, achieving measurable impacts across both social and environmental dimensions, such as PackBack in Action Year 3: The Drive for EPR In Thailand, one of the projects showcasing determination to efficient and sustainable use of resources. Furthermore. ongoing partnerships with SCG and the Ministry of Natural Resources and Environment have led to the continuation of several significant events, including the ESG Symposium 2024 and the Thailand Climate Action Conference (TCAC) 2024, further establishing the SUSTAINABILITY EXPO as a central platform for sustainability and a key venue for sharing practical sustainability insights applicable to organizations.



#### Dr. Sumet Tantivejkul Member and Secretary-General Chaipattana Foundation

"Today, I am truly honored to deliver the keynote address at the opening ceremony of the SUSTAINABILITY EXPO 2024, now in its fifth consecutive year under the theme 'Sufficiency for Sustainability.' I wholeheartedly commend the organizing committee for their unwavering dedication to advancing sustainable development, as our world continues to evolve. As the global population grows, it is essential for us to come together and adapt, strengthening our collective efforts to achieve the Sustainable Development Goals (SDGs) by 2030.

Today, the organizers have invited me to discuss the Sufficiency Economy Philosophy, which was introduced by His Majesty King Bhumibol Adulyadej in 1999. In 1996, Thailand encountered the economic bubble crisis, presenting profound challenges for the nation. Ultimately, we had to turn to the International Monetary Fund or IMF for support. During that period, His Majesty began emphasizing the concept of Sufficiency Economy, which was later incorporated into the Ninth National Economic and Social Development Plan. During that time, Mr. Sansern, the Secretary General, consulted me on the need for an official written declaration from His Majesty. Subsequently, His Majesty graciously provided the official declaration. In the 13 lines that His Majesty

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I hope to see this land flourish, our children and grandchildren thrive, and believe that, with united spirits, we can overcome any challenge.

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composed, he emphasized the significance of 'change' three times.

At present, the population is rapidly growing. Humans are both creators and destroyers. I encourage everyone to reflect on what we create—whether it's innovations or everyday products—as they all require resources and raw materials from the Earth. Our planet is limited in size, especially when we consider the projected population growth to nine billion within the next 10 to 20 years. I'd like to ask: Do we consume thoughtfully, or do we consume out of greed? Take a moment to look around your home-are there items that no longer serve a purpose in your life, yet you continue to hold onto them? Every item comes with a price, and we must reflect on what we trade in return, remembering that everything we take ultimately comes from the planet.

Regarding the Sufficiency Economy Philosophy, His Majesty taught that every action should undergo a three-step consideration: moderation, reasonableness, and prudence. First, assess yourself to understand your resources—whether they are intellectual, material, physical, or financial. Secondly, incorporate 'reason.' In Buddhism, we emphasize ethics, concentration, and wisdom, all rooted in reason. Without reason, greed can often take its place. We often observe investors borrowing money to expand their investments when the market grows, without thoroughly evaluating their own resources. Their decisions are made without a rational approach. His Majesty emphasized the importance of prudence, because everything comes with risk. We must cultivate resilience, as His Majesty advised, to effectively manage risks. For example, in agriculture, His Majesty recommended diversifying crops rather than relying on a single one, as a single failure could lead to complete loss. Today,

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the global trends align with his principles, seeing that operating a business or a factory involves adhering to numerous regulations, such as those related to pollution control and promoting a circular economy.

Furthermore, His Majesty highlighted the importance of adaptation to change. During my recent conversation with the Minister of Education, we discussed whether our curriculum is keeping up with the modern world. Many countries are facing challenges as students lose interest in traditional education systems, where simply achieving degrees no longer guarantees job opportunities. Today, students are increasingly opting for short, practical courses that offer immediate benefits and enable them to earn income effectively. We must reflect on whether our educational system is evolving to meet these needs. Otherwise, we risk facing disruption. His Majesty emphasized the need to stay informed, cautious, and attentive, as global events can have farreaching impacts on us. The world is interconnected, and what happens elsewhere can directly affect us. We must remain vigilant and adapt accordingly.

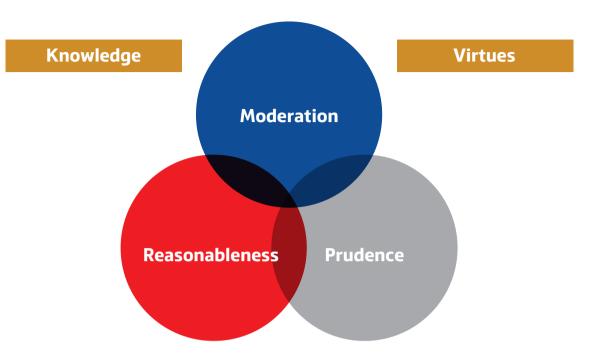
His Majesty advised that to achieve balance and sustainability, one must adhere to virtue. Over the past 35 years, I have followed His teachings closely. He has guided me in various aspects of land, water, air, and fire management. Yet, His primary focus has always been on ethics and righteousness. There was only one occasion when I witnessed King Rama IX cursed someone for corruption: 'Anyone who engages in even the slightest corruption, may they face ruin.' For those who are honest, he would pray for their prosperity and longevity. His Majesty wished that within 10 years, our country would grow and corruption would diminish. However, more than 20 years have passed, and his hopes have yet to fully materialize.

Distinguished guests, everything we discussed today must be put into action promptly, as it concerns our very survival. While we may not feel an immediate sense of urgency, it is our children and future generations who will live on this land and face the consequences. 'Sustainability' means ensuring the well-being and prosperity for future generations based on shared values and benefits. I sincerely thank everyone and all organizations that have come together. The increasing number of organizations joining the expo reflects our collective desire for a better future. Therefore, I urge all of us to transform this desire into meaningful actions. I hope to see this land flourish, our children and grandchildren thrive, and believe that, with united spirits, we can overcome any challenge. Thank you very much."

#### **Sufficiency Economy Philosophy**

Sufficiency Economy is a philosophy taught to the people of Thailand by His Majesty King Bhumibol Adulyadej the Great. It is a guideline for leading a stable and sustainable life amid globalization and rapid changes. The Office of the National Economic and Social Development Board had assembled a team of multidisciplinary experts to compile His Majesty's teachings and sought his approval for publishing an article titled "Philosophy of Sufficiency Economy" as a guideline on Sufficiency Economy practices. His Majesty then edited the article and approved the publication on 29 November 1999. The excerpt is as follows:

"...Sufficiency Economy is a guiding philosophy on leading a balanced life for people at all levels from family, community, to state. It emphasizes the importance of following the Middle Path in developing and administering the country, particularly economic development which aligns with the forces of globalization. Being sufficient means ones should prioritize moderation, reasonableness, and immunity against negative impacts from internal and external changes. It is essential to employ knowledge wisely, be prudent, and exercise caution when planning and taking actions. It is also crucial to establish a strong mental foundation for all, especially government officials, scholars, and business people. With good morals, integrity, and knowledge, as well as perseverance, wisdom, and prudence, people will be able to maintain good balance and be resilient to sudden and far-reaching material, societal, environmental, and cultural changes brought about by the world..."



The Sufficiency Economy Philosophy







































## MAGIC NUMBERS OF **SX2024**

**Organizations** (Thai and International)

International **Organizations** 

**Speakers** (including Partners' Events) Queen Sirikit National Convention Center (OSNCC)

 $70,000_{SQ.M}$ 

**120,440** Attended SX Main Exhibition

#### **Revenue Generated** For SMEs & Communities















Total Sales of Million Baht



Total Sales of



209,682

Total SX App Download

Distribute 500 Trees to Visitors

Generate Income for 178 Local Communities

Across 45 Provinces





**Fundraising Activities** Money Raising through Concerts by Power of Thai Foundation

#### **Numbers of On-site Visitors**

393,891 377,081 >800 Staff in Every Zone

of On-site Visitors **246,181** 

Aged between 18-35 Yrs

17,883 Students from Schools & Universities

in 37 Provinces

13,417

From 32 Universities

**4,466** Pupils 94 Schools



## **SX ENVIRONMENTAL IMPACT**





>4,000 **Donated items Received** 

80,000 baht Raised from Selling Donated Goods 26 tco<sub>2</sub>e

**GHG** Emission Avoided











## **SX WASTE MANAGEMENT**



























1,034

300<sub>kg</sub>



**Glass Bottles** 











# IMPACTS CREATED OVER THE PAST 5 YEARS

Sustainable Collaboration Platform that AIMS to Create Impacts all Year Round Ignite Actions. Embed Sustainable Mindset Among Youth. An Ultimate Destination for Sustainable Knowledge and Gathering Space for Sustainable Shapers

Over

1,213,503
Visitors

Came to Learn and Take Actions for a More Sustainable World

**On site Visitors** 

**742,381**Aged between 18-35 year

Revenue Generated for SMEs

More han 114.86
Million Baht



















# SEP INSPIRATION

## EXPLORING SUSTAINABLE DEVELOPMENT PRACTICES FROM AROUND THE WORLD

The Sufficiency Economy Philosophy or SEP is not merely a concept but a practical approach guiding us toward sustainability. It emphasizes balance in every aspect-our way of life, economic development, and the responsible use of resources. This exhibition zone showcases successful initiatives from leading organizations in Thailand and around the globe, offering a glimpse into the world of sustainable development. From projects enhancing quality of life in various areas, to innovations for environmental conservation. efficient resource use, and creative ideas that inspire collective action, this space invites everyone to shift their perspectives and work together toward a sustainable future for all.



Similar to previous years, SX PROLOGUE invited everyone to the expo through an immersive experience exhibition. This year's theme was "SX PROLOGUE PEOPLE & PLANET." At the start of the journey, a tunnel of mirrors, titled "REFLECTION OF IMPACT," highlighted the alarming effects of natural changes driven by rising global temperatures







and shifting seasons. This section encouraged reflection on the various challenges we faced before moving into the second part of the exhibition, "POINT OF NO RETURN." This large room presented a narrative of the four industrial revolutions, which developed alongside a growing global population, contrasting with the depletion of natural resources and social conflicts that led to wars and displacement. Together, these events brought the world to a state of imbalance that could not be reversed.

Upon entering the final room, "HOPE AND HELP," visitors discovered a sense of hope and a path forward through the inspiring stories of those who had taken meaningful action. Surrounded by a backdrop of



natural beauty, the room featured a sculpture titled "Story from Plateau" by Mr. Bounpaul Phothyzan from Laos, crafted from the shells and remnants of explosives. Standing prominently in the center, the sculpture invited visitors to reflect on the sorrow, vulnerability, and harsh realities of war, as well as its profound and lasting impact on people's lives.

# SUSTAINABLE DEVELOPMENT INITIATIVES IN THAILAND ENHANCING QUALITY OF LIFE

As an agency established to support projects initiated by royal directives, the **Chaipattana Foundation** operates based on the Sufficiency Economy Philosophy. This approach serves as the foundation for achieving "victories in development" and delivering rapid benefits to the public, free from various constraints. This year, the Chaipattana Foundation presented nine successful development stories spanning health, environment, and society, which were adapted and extended to other regions across the country.

Prominent health-focused initiatives included the royally-initiated animal development center in Dan Sai district, Loei province, and the royally-initiated animal development center in Nong Chalarb district, Tak province. These initiatives focused on Happy Chicken farming, allowing chickens the freedom to roam outside the coops and using locally-sourced feed to produce high-quality, antibiotic- and chemical-free meat. In terms of environmental efforts, the Lham Phak Bia Environmental Research and Development Project in Ban Laem district, Phetchaburi province, addressed wastewater and community waste management. By adopting a "Nature Helps Nature" approach, the



project successfully expanded mangrove areas by 546 rai with sediment carried by the Phetchaburi River and coastal currents. This transformation established the area as one of Thailand's premier bird-watching destinations and a key environmental research center of national importance.

In the social dimension, the "Chaipattana-Thai Red Cross Village Project (Baan Tung Rak)" was initiated by the royal command of Her Royal Highness Princess Maha Chakri Sirindhorn. It was established to provide new homes for villagers affected by the 2004 tsunami in Kuraburi district, Phang Nga province. The project focused on rebuilding community life through the principle of "geosocial," enabling villagers to live sustainably and independently.

In addition to the Chaipattana Foundation, there were notable examples of success from **the Office of the Royal Development Projects Board (ORDPB)**, which embodied His Majesty King Rama X's philosophy of "Continue, Preserve, and Build Upon" to further enhance projects initiated under royal patronage for the greater





benefit of the people. The booth showcased various approaches to natural resource management, including concepts like "Philosopher of the Land" (nurturing the soil to sustain crops), "Philosopher of Water" (rainmaking and water management techniques), "Philosopher of Forest" (the concept of "Three Benefits, Four Uses"), and "Philosopher of Renewable Energy" (palm oil extraction, diesohol, and biodiesel production).

The Utokapat Foundation under Royal Patronage and the Hydro-Informatics Institute were established under the royal initiative of His Majesty King Bhumibol Adulyadej the Great, dedicated to advancing water resource management through science and technology. Their booth presented a range of technologies for water management, including small-scale survey boats for reservoir data collection, terrain survey vehicles equipped with MMS systems to create detailed 3D terrain models, and automated telemetric systems for monitoring weather conditions and rainfall. These tools supported efficient water management planning and disaster prevention on platforms such as www.thaiwater.net and the ThaiWater mobile application.





With the principle of "Cultivate Land, Cultivate People," the Mae Fah Luang Foundation under Royal Patronage incorporates the royal philosophy of breaking the cycle of hardship into its integrated development efforts. The foundation empowers individuals through various projects. Notable efforts include the development of the Doi Tung Development Project, which has revitalized over 100,000 rai of forest land. These projects establish conserved forests, economic forests, and forests for habitation and livelihoods, fostering a balanced coexistence between communities and nature. Additionally, the Carbon Credit Management Project promotes sustainable development by encouraging communities to both care for forests and support their well-being.

As the primary agency responsible for "Alleviating Suffering, Promoting Happiness" for Thai citizens, **the Ministry of Interior** showcased innovative socio-environmental approaches for a sustainable future. Visitors had the opportunity to learn directly from local





practitioners across the country, sharing successes based on the principles of sufficiency economy and various royal initiatives. The ministry highlighted its efforts in driving sustainable development through the MOI SDGs Tracker and the MOI War Room system, ensuring progress towards national and global goals.

Since humans are at the core of any development, religion can serve as a vital driver of sustainable growth. This year's **Religion for Sustainable Development booth** highlighted the connection between religious values and the United Nations' Sustainable Development Goals across five key areas: People, Planet, Prosperity, Peace, and Partnership. The booth showcased Buddhism's role in environmental restoration on the global stage, such as the Bangkok Declaration 2023 from the 18<sup>th</sup> United Nations Day of Vesak Celebration. This emphasized addressing ecological crises and climate challenges through teachings of compassion and non-violence, while integrating local wisdom and technology to reduce carbon emissions.





## APPROACHES TO SUSTAINABLE DEVELOPMENT FROM AROUND THE GLOBE

In addition to showcasing sustainable development by agencies in Thailand, the SEP INSPIRATION zone featured examples from various international organizations, embassies, and agencies around the world. This year, the United Nations Country Team in Thailand gathered more than 10 key UN agencies, along with networks of private sector organizations and students from leading universities through the MUN Network Thailand project, to share experiences in advancing the 17 Sustainable Development Goals (SDGs) at the United Nations Experience Pavilion. The exhibition highlighted a comprehensive approach encompassing environmental, social, and governance dimensions through engaging activities. These include initiatives like the International Labour Organization (ILO) presenting immersive VR experiences of working on Thai fishing vessels, the United Nations High Commissioner for Refugees (UNHCR) offering interactive activities that provide insights to refugee experiences, and the United Nations Development Programme (UNDP) leading a game-based approach to teach waste separation and explore sustainable development pathways.



In addressing regional environmental issues, the ASEAN Centre for Biodiversity, affiliated with the ASEAN Secretariat, highlighted advancements in leveraging innovation and technology to manage biodiversity data. Over the past 20 years, ASEAN has entered the "Age of Discovery," with the identification of more than 2,200 new plant and animal species in the region. These discoveries play a crucial role in shaping conservation strategies and promoting the sustainable use of natural resources among ASEAN member states. The booth utilized state-of-the-art technology to offer visitors an enhanced experience through interactive games and a variety of activities.

The World Bank presented the vision of "A World Free of Poverty on a Livable Planet," highlighting innovative financial approaches for sustainability that drive meaningful change. These initiatives include Green Finance, which promotes investments to reduce greenhouse gas emissions, build climate resilience, and protect biodiversity. Blue Finance focuses on expanding investments to restore marine ecosystems, prevent coastal erosion, and support sustainable, environmentally-friendly tourism. Additionally, Carbon Finance supports the creation and sale of high-quality carbon credits that contribute positively to both society and local communities.





The Joint Foreign Chambers of Commerce in Thailand (JFCCT) is dedicated to promoting sustainability through trade and investment across various dimensions, such as supporting a circular economy and encouraging transparent and measurable ESG reporting. Throughout the expo, JFCCT members shared and exchanged sustainable business practices, reinforcing that sustainable development is a key focus for businesses from all its member countries.

The Government of Japan, through the Cabinet Office, the National Space Policy Secretariat, and the Embassy of Japan in Thailand, in collaboration with the Geo-Informatics and Space Technology Development Agency (GISTDA), showcased space technology for environmental conservation. This included a satellite-based fire alert system used to manage wildfires in Sri Lanna National Park in Chiang Mai province, which is currently operational in Mae Taeng, Chiang Dao, and Prao districts. Additionally, the QZSS satellite system sends short messages containing hotspot data, allowing officials to assess wildfire situations in remote areas. These cutting-edge technologies were presented in a simple and intuitive format, embodying the essence of Japanese refinement.





The Swedish Government, through the Embassy of Sweden in Thailand, in collaboration with the Thai-Swedish Chamber of Commerce (SweCham).

presented the concept "Unlocking Solutions for the Future, Today" to showcase Sweden's leadership in green innovation and research. The showcase included initiatives from the private sector committed to sustainable development, such as Alfa Laval, which presented technology aimed at reducing emissions by reusing excess heat, enabling industries to responsibly manage resources, improve energy efficiency, and minimize environmental impact. Hitachi Technology, a leader in various technological fields, highlighted innovations for reducing carbon emissions across sectors including information technology, infrastructure, energy, and construction. Saab introduced the Digital Tower concept, revolutionizing air traffic management to improve efficiency, reduce costs, and decrease carbon emissions. Additionally, SKF showcased RecondOil technology, which allows used oil to be reused while maintaining its original quality, thus reducing environmental impact and lowering disposal costs.





The Swiss Government, through the Embassy of Switzerland, in collaboration with the Swiss Thai Chamber of Commerce, presented the concept "Connecting People, Cultures, and Economies in a Sustainable Way." The booth showcased Switzerland's commitment to clean air for everyone, through both national goals and active participation in international cooperation forums, such as the partnership between Switzerland and Thailand under the Paris Agreement, Article 6, in the "Bangkok E-Bus" project to reduce greenhouse gas emissions and improve air quality in Bangkok. Additionally, innovations in transportation and aviation were highlighted, with "AeroSHARK," a bio-inspired film developed by Lufthansa Group that mimics shark skin to optimize airflow, reduce friction around aircraft, and enhance lift, resulting in fuel savings and lower carbon dioxide emissions. This film has been installed on several aircraft, including SWISS Airlines' Boeing 777 fleet, totaling 12 aircraft used for long-haul flights.

**The New Zealand Government** is actively developing technologies to drive the nation toward carbon neutrality. **New Zealand Trade & Enterprise (NZTE)**, the government agency responsible for promoting international business, presented the concept "See Tomorrow First" focusing on integrating innovative thinking with



effective solutions. This includes technologies like CarbonClick, which tracks and offsets carbon emissions in industries such as MICE, aviation, and hospitality, enabling businesses to manage and assess their environmental impact more efficiently. Additionally, Hiringa Energy introduced a network of hydrogen refueling stations for large vehicles in both New Zealand and Australia, aimed at reducing carbon emissions in the transportation sector. DSH Systems innovations were also highlighted, designed to reduce dust in industrial material handling while protecting the health of workers in the logistics industry, emphasizing both operational efficiency and safety.

The Italian Government, through the Embassy of Italy in Thailand and the Italian Trade Agency, has partnered with two prominent companies specializing in technology and innovation for sustainable solutions under the concept "Italian Innovative Solutions for a Sustainable Ecosystem." Blue Engineering & Design demonstrated its collaborations with global industry leaders in designing vehicles, trains, ships, aviation, space technologies, as well as information and communication technologies. Additionally, MOIWUS, the owner of the innovative patent "RiPura," showcased its advanced treatment of industrial wastewater across various sectors, ensuring exceptional efficiency.



The Australian Government, through the Australian Embassy in Thailand, presented its booth with the theme "A Greener Future Together – From Sustainable Agriculture to Climate-Resilient Cities." The country is leading the adoption of innovative technologies and practices to mitigate environmental impacts and address climate challenges, guided by the Australian Agricultural Sustainability Framework. This framework integrates data and scientific research to establish best practices in agriculture, focusing



on environmental stewardship, community and animal welfare, and sustainable development. The presentation also highlighted initiatives like Resilient Urban Centres and Surrounds (RUCaS), which aim to create adaptable and sustainable urban areas to address issues such as flooding, wastewater management, and air pollution.

With over one-third of its land below sea level, the Netherlands has pioneered the monumental "Delta Works" flood control project. Highlighted by the Dutch Government, through the Embassy of the Netherlands in Thailand and the Netherlands Thai Chamber of Commerce (NTCC), the exhibition showcased an iconic image of the Eastern Scheldt Storm Surge Barrier-a world-renowned triumph of civil engineering. The display also presented cutting-edge innovations tackling global challenges, including an immersive VR experience that connected attendees to advanced technologies. Key features included a high-efficiency water pump model already deployed in Bangkok, a project converting urban spaces into resilient ecosystems for sustainable food production, and the Philips' smart lighting control system, which allows users to optimize energy consumption by adjusting light temperature and scheduling operations via mobile devices.





The Hungarian Government, through the Embassy of Hungary in Thailand, presented its vision for advancing global sustainability, focusing on innovation to drive the economy, promote water and sanitation management, foster peace, and protect the climate and environment. The exhibition featured notable innovations, such as the KUUBE Smart Bench, which harnesses solar energy to charge mobile devices, provide Wi-Fi, and monitor environmental factors like air quality and noise levels. It showcased the PEEK TO POWER™, which enables remote monitoring of energy supply and their operational data. Additionally, ACS Hungary KFT's waterless cleaning technology for the automotive industry highlighted the country's commitment to sustainable solutions.

The French Government, through the Embassy of France in Thailand and the Franco-Thai Chamber of Commerce, brought together ten leading government research agencies and private companies to showcase policies and practices for sustainable development. Highlights included Ecocert, a global certification body operating in over 80 countries, which verifies the environmental and sustainability practices of organizations and businesses. Another key feature was Schneider Electric's EcoStruxure™ platform, designed to help companies efficiently and automatically collect and analyze data to achieve their sustainability goals.



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## **BETTER ME**

## EMBRACE EACH STEP OF LIFE WITH A SUSTAINABLE LIFESTYLE





A long and sustainable life is a cherished aspiration for many, inspiring meaningful goals, and thoughtful planning through every stage. This is especially important as Thailand enters an aging society, facing various challenges. The BETTER ME zone invited you to explore innovative medical advancements that enhance quality of life

and happiness in your golden years, while offering insights into lifelong learning skills for a truly sustainable and balanced lifestyle.





## CUTTING-EDGE MEDICAL INNOVATIONS FOR A HEALTHIER FUTURE

Thailand has made remarkable advancements in medical innovation, striving to provide comprehensive healthcare services ranging from preventive care to treatment and end-of-life care. These efforts aim to enhance the overall quality of life for the population. BETTER ME features state-of-the-art medical breakthroughs from leading medical institutions. Chulalongkorn Hospital, Thai Red Cross Society showcased the "Telemedicine Robot," developed during the COVID-19 pandemic to provide automated health assessments, movement evaluations, and at-home patient care, eliminating the need for hospital visits. Another innovation was "Rehabilitation Robot" which enhanced mobility and quality of life for patients with neurological conditions while alleviating the burden on healthcare staffs. MedPark Hospital emphasized cutting-edge treatments such as transcatheter aortic valve replacement (TAVR), a minimally invasive





solution for treating aortic valve stenosis without surgery, alongside CPR workshops promoting lifesaving techniques. Faculty of Medicine, Ramathibodi Hospital, Mahidol University led with its Advanced Cell Therapy and Biomedical Device Manufacturing Center, featuring the CHEM Meter, a portable tool designed to measure salt levels in food, encouraging healthier eating habits by reducing sodium intake. Siriraj Hospital, Mahidol University showcased fibroblast cell transplantation for facial wrinkle reduction and VISIA, an advanced facial imaging and analysis system. Mahidol University presented outstanding innovations from the MU AI Center and the Holistic Health and Wellness Centre, promoting creative and integrative health management approaches. Faculty of Medicine, Chiang Mai **University** highlighted the severe impacts of PM2.5 air pollution, a leading cause of life-threatening diseases and one of the top three daily causes of death in Chiang Mai.



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**The Thai Red Cross Society,** guided by the principles of grievance relief, quality of life promotion, disease treatment, and suffering eradication, invited you to explore various applications designed for humanitarian aid. These include "Ponphai" for reporting disasters and



requesting assistance, "Donation Hub" for donations and fundraising, and "Thai Red Cross Volunteers," where individuals can sign up to support the society. The **Bhumirajanakarindra Kidney Institute Hospital** encourages Thai people to care for their kidney health through healthy eating practices. They offer menus for kidney patients in the pre-dialysis stage and conduct kidney disease prevention initiatives across 177 districts. Meanwhile, the Heart Foundation of Thailand under the **Royal Patronage of HM the King** organizes the "Thai Food Good Heart" project to promote a heart care model based on the "3 Or+," which stands for Food, Exercise, Air, and Emotion.



## PREPARING FOR AN INCLUSIVE AND AGING SOCIETY

As Thailand is gradually becoming an aging society, it is essential to focus on maintaining both physical and mental well-being amidst changes. An area dedicated to "Aging Society" invited everyone to enhance their quality of life through self-care in nutrition, exercise, and mental health across five zones:

• GOOD HEALTH IN EVERY BITE Good health starts with nourishing your body through functional food to improve health and prevent diseases. This includes food preparation tailored to the unique needs of different age groups, with adjustments in texture, portion size, and cooking techniques. The zones introduced innovative products such as "NutriWell," a UHT soy milk enriched with superfoods like oats and tri-colored quinoa from Fraser & Neave, Limited.



Protein-rich products with the Healthier Choice logo by **Oishi Group Public Company Limited** and groundbreaking food solutions from startups under **the SPACE-F project**, including drinks that reduce the risk of urinary stones and egg white protein beverages.

• HEALTHY MIND, HAPPY LIFE Take care of your mental health with "Sati App," designed for individuals navigating mental health challenges. This app features trained listeners matching for talking therapy and a Mood Tracker for daily emotional reflection. This area also showcased the "Stress Challenge" by Canvas Longevity (Genfosis), which assesses stress levels to offer more targeted treatment. Additionally, the Princess Galyani Vadhana Institute of Music provides self-healing practices through music therapy, transforming everyday objects into therapeutic sounds for emotional well-being.



**MAIN EXHIBITIONS** 









• TOOLS AND INNOVATION As the world shifts toward aging societies, there is a growing focus on innovations that offer convenience and enhance the lives of the elderly. Notable examples include: Robothespian Humanoid Robots, designed with a touchscreen and human-like interaction; CMED Hoist, created for a single person to lift and move bedridden patients; and a stand-up wheelchair that enables individuals with disabilities to stand independently, stimulating physical functions.

• FINANCIAL SECURITY Begin planning your finances today to ensure a comfortable retirement. The Stock Exchange of Thailand introduced "3 Steps to Finding 3 Savings Pots for a Happy Retirement." The first covers everyday costs, healthcare, and emergencies. The second focuses on mandatory savings through workplaces, such as social security, government pension funds, provident funds, and life insurance with pension plans. Finally, after calculating your additional needs, create a third savings plan that includes extra savings, managing income and expenses, and choosing investment options with an acceptable level of risk.





• ENDING NOTE Plan your life to live well, die well, and contribute to a sustainable society through "Death Cleaning." Cheevamitr, 10DK Home Tidying, and Pankan Shop have teamed up to promote tidying up before passing to relieve physical and emotional burdens. They also introduced the "Living & Leaving Note," designed to help individuals plan a well-lived life and peaceful passing, encouraging the documentation of key information and healthcare planning for later stages of life.

The zone also emphasized fostering an inclusive society. The Ministry of Social Development and Human Security raised awareness about the challenges of an aging society, such as a shrinking youth population, a declining workforce, and low productivity levels. To address these, the ministry introduced the "5x5 Let's Turn the Tide" policy, focusing on: (1) empowering the workforce, (2) enhancing children and youth productivity, (3) supporting the elderly, (4) promoting the inclusion of people with disabilities, and (5) building an inclusive ecosystem. Nearby, the SX SENSORY EXPERIENCE offered an immersive look into the lives of individuals without vision and hearing. The space simulated everyday scenarios, teaching participants how to navigate paths and tactile paving blocks with white canes. They practiced independent shopping in the dark, enhanced listening skills, and silent communication, all guided by volunteers with disabilities, fostering a deeper understanding of these experiences.

## LIFELONG LEARNING INSPIRING KNOWLEDGE EXCHANGE AND LIFELONG DISCOVERY

In today's fast-paced world, knowledge is constantly evolving, making the traditional education system insufficient to keep up with the rapid changes. For that reason, lifelong learning is essential for continuous personal development. This exhibition area encouraged individuals to continue learning throughout their lives through sustainability-focused initiatives developed under projects supported by Thai Beverage Public Company Limited, such as Education Institute Support Activity (eisa), Beta Young Entrepreneur, Partnership School, and CONNEXT ED. These initiatives promote collaborative learning between communities and educational institutions, providing students with opportunities to experience diverse cultures and local lifestyles while fostering innovative work that reflects the unique identity of communities. For example, the Creative Young Designers Season 4 project, in partnership with 19 communities across 14 provinces and 11 universities, emphasizes grassroots economic development. Collaborations like SIFE from the Faculty of Commerce and Accountancy at Chulalongkorn University, along with the Ban Mai Rajbamrung Weaving Group from Phayao province, aim to elevate Thai weaving to a global level by fostering business knowledge such as basic accounting, inventory management, product design, marketing, and fashion design.





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The Textile and Fashion Design Program at Thammasat University's Rangsit Campus has created a network focused on indigo-dued fabrics as part of the community tourism initiative in Ban Chiang, Udon Thani. Over 300 prototypes, including clothing designs, patterns, and processed products, have been developed. The area also facilitated knowledge exchange between students and local communities. providing opportunities for young individuals to showcase their entrepreneurial potential. Highlights included 11 eco-conscious workshops organized by eight affiliated universities, such as crafting eco-friendly notebooks from water hyacinth and rice straw by Rajamangala University of Technology Thanyaburi and handicrafts made by upcycling leftover fabric by Dhurakij Pundit University.

Innovation for Society highlighted transformative projects driving community, social, and environmental development. One key initiative is 88 SANDBOX by Thammasat University, connecting startup networks to boost Thailand's startup ecosystem. Another, Creative Startup 2024 by King Mongkut's Institute of Technology Ladkrabang, empowers students to develop innovative ideas and foster sustainable social growth.









Nurturing Entrepreneurship focused on equipping students and local communities with essential business skills. For example, the Beta Young Entrepreneur program at the University of the Thai Chamber of Commerce supports young individuals in developing their entrepreneurial potential through hands-on activities, while promoting good citizenship. The Win Win WAR OTOP Junior reality TV show also encourages young entrepreneurs to showcase their creativity with 16 products across six categories, from innovations and non-food uses of herbs to everyday items, decorations, souvenirs, clothing, food and drinks.







Both the public and private sectors are crucial in advancing sustainability through projects and products benefiting people and the planet. CPF (Thailand) **Public Company Limited** reinforces its position as a leader in sustainable food innovation through the concept of Sustainovation. They have showcased their vision to become the Kitchen of the World by integrating digital technology into their process and the "Thai Food - Mission to Space" program, ensuring CP's chicken products meet space-grade food safety standards. Nestlé (Thai) Ltd. promotes sustainable lifestyle changes through its "Balanced Diet" concept, focusing on holistic health management for physical and mental well-being. The company supports environmental restoration via regenerative agriculture, working towards a Net Zero 2050 goal, which represents its consumer-and-environmentaldriven operations strategy. The Ministry of Agriculture and Cooperatives champions environmentally-conscious farming based on Sufficiency Economy Philosophy (SEP). Examples include the sustainable development of fragrant GI coconut under Bio-Circular-Green Economy (BCG Economy), which involves upstream-to-downstream



management. Boonchu Dairy Farm focuses on zero waste and sustainable farming practices promoting harmony between people, dairy cows, and nature. **The** Mechai Pattana School, under the Mechai Viravaidua Foundation, fosters lifelong learning by supporting careers, ensuring food security, and enhancing community well-being. It has been recognized by the United Nations Population Fund as one of the most innovative schools globally. The Kaokonlakao Foundation has been providing educational opportunities to underprivileged children, supporting over 200 children for four consecutive years. Class 66th of the National Defence College showcased their work under the "The TEN" project, featuring Creative Shared Value (CSV) initiatives to promote sustainable community development. These initiatives focus on reducing inequality by empowering marginalized communities. Examples include "Promoting Thai Identity in Youth," which aims to cultivate future leaders through four steps: Awareness, Preservation, Gratitude, and Contribution, and "Opening Youth Perspectives with NDC#66," which helps capable yet underprivileged youth discover their potential for social equity and career opportunities.





# **BETTER LIVING**

ADAPT AND CHANGE OUR WAYS
TO EASE THE GLOBAL BOILING



As the hands of the CLIMATE CLOCK continue to tick, the world faces an unrelenting natural crisis. BETTER LIVING urged us to confront the urgency of global warming, examining its root causes and seeking answers to the critical question: 'How can we live our lives to create a better world?' Let's learn from both the public and private sectors, who are committed to finding solutions and adapting their operations to mitigate the impacts of climate change. It's time for action... before time runs out.

### CLIMATE CLOCK COUNTDOWN TO THE GLOBAL CRISIS

Rising temperatures, unpredictable extreme weather, rising sea levels, declining biodiversity, and worsening air pollution-these are all severe consequences of climate change. These events not only impact quality of life but also disrupt the economy, society, and the environment. As the CLIMATE CLOCK continues its



countdown, we have less than five years to unite and address global warming before the world surpasses its tipping point. The BETTER LIVING exhibition reflects on humanity's energy history, from coal to oil and natural gas, and our current shift to renewable energy. It also examines the seven greenhouse gases and various activities, both at the individual and industrial levels, that contribute to their emissions.





This exhibition highlighted ideas, industry standards, and innovations aimed at fostering a low-carbon society. The Thai Industrial Standards Institute introduced the Guidance on Sufficiency Economy for Industries (TIS 9999), which supports personnel and organizational development based on the Sufficiency Economy Philosophy. The Innovation Institute for Industry, under the Federation of Thai Industries, showcased the LIIN coat—liquid thermal insulation developed from space-grade nanomaterials. The Thailand Forest Certification Council presented the PEFC (Programme for the Endorsement of Forest Certification) standard for sustainable forest management. A model of Switzerland's "Mammoth" carbon capture facility was also displayed, demonstrating its ability to remove up to 36,000 tons of carbon dioxide from the atmosphere each year, equivalent to taking around 7,800 cars off the road.

On a more relatable context, such as food consumption, BANGKOK ROOFTOP FARMING presented the concept of urban farming, transforming vacant rooftop spaces into areas for growing food and generating income for urban communities. The exhibition showcased food innovations that benefit both the planet and people. Leading food producer **Charoen Pokphand Foods Public** Company Limited introduced its low-carbon food concept across all product lines, earning Carbon Footprint Product (CFP) and Carbon Footprint Reduction (CFR) labels for 88 items. Meanwhile, S&P Syndicate Public Company Limited developed products and services that reduce greenhouse gas emissions throughout their life cycles, offering consumers carbon footprint information before they make purchasing decisions. As a result, 16 of their products received CFP labels, while 6 earned CFR labels.





Beyond food choices, everyone can adopt more eco-friendly lifestyles by changing habits and choosing innovations focused on carbon reduction. This includes selecting products made from recycled materials, such as food packaging, furniture, and construction materials-like eco-friendly décor from **Royce Universal Co., Ltd.** or lightweight synthetic blocks, GREEN ROCK, from **Charan Business 52 Co., Ltd.** The latter, which won an innovation award from the National Science and Technology Development Agency, provides effective insulation, reducing indoor temperatures by 2-3 degrees Celsius.

Ultimately, no matter how eco-conscious we strive to be, our very existence still generates waste-from food scraps to byproducts from everyday activities. One immediate action everyone can take is to properly





separate waste, ensuring as much as possible is directed into the recycling process. The Thailand Institute of Packaging and Recycling Management for Sustainable Environment (TIPMSE) and the PackBack project shared insights on waste management in Thailand, proper waste separation, and Extended Producer Responsibility (EPR), which covers all stages of a product's life cycle. The exhibition also featured collection boxes for electronic waste by Advanced Info Service Public Company Limited and for old underwear by Sabina Public Company Limited, both of which are either recycled or used to generate clean energy. Shoo Shoke, by the **Bang Kachao Organic** Farming Community Enterprise, showcased a Thai-made food waste disposal machine that turns waste into compost within 24 hours, without using heat.





## Driving SustainabilityFostering Awareness, Understanding, and Action

As the world grapples with environmental challenges, government agencies and organizations play a crucial role in fostering awareness, promoting understanding, and driving meaningful action. Through effective policies and communication, they inspire societal change. This year, the Ministry of Natural Resources and Environment introduced the Department of Climate Change and Environment, tasked with advancing Thailand's sustainable growth through a low-carbon economy and enhanced climate resilience, supported by active public participation. The ministry focuses on four key areas to address climate challenges: (1) Climate Policy: formulating strategies for greenhouse gas reduction and climate adaptation, (2) Climate Action: promoting collaboration among the public and private sectors and civil society to tackle climate issues, (3) Climate Technology: adopting innovations to mitigate emissions and support adaptation, and (4) Climate Finance: driving green financing to support sustainability initiatives.





The Department of Industrial Promotion supports creative product development by applying circular economy principles, upcycling waste materials into valuable new items. This year, it showcased "Waste to Value" innovations from SME networks, supported by the department, including the Green Dollhouse, a modular house set with furniture designed to educate on environmental conservation and energy efficiency. The Metropolitan Electricity Authority introduced the Triple Go for Goal initiative, highlighting advancements in reliable electrical systems (Go SMART), enhanced e-services tailored for urban lifestyles (Go Digital), and the development of EV ecosystems for households, public spaces, and commercial use (Go Green). The Foundation for Forests in Our Hearts encouraged environmental awareness by inviting attendees to experience the sounds of nature from Thailand's iconic forests, such as Doi Chiang Dao Wildlife Sanctuary, the country's fifth UNESCO biosphere reserve. Visitors were invited to support forest conservation efforts through donations or by participating in an Eco-Print workshop to create nature-inspired designs on fabric bags.





#### SUSTAINABILITY THROUGH ENHANCED PRACTICES FROM UPSTREAM TO DOWNSTREAM

As industries depend on natural resources, many organizations are taking a more responsible approach to managing resources, from upstream to downstream, to preserve environmental balance and support local communities. A prime example of this commitment is **Thai Beverage Public Company Limited**, which focuses on sustainable water management. This year, the company showcased the "Water of Life" exhibition, presenting advanced technologies aimed at reducing water and energy use. Their goal is to return 100% of water to nature and communities by 2040 through projects like the Community Water Management



following the Royal Initiatives in collaboration with the Hydro-Informatics Institute (HII) in the Mae Had mining community of Chiang Mai. It also partnered with the Mae Fah Luang Foundation to support over 90,000 rai of community forests, implemented 33 clean drinking water initiatives across 11 provinces, and launched a solar-powered drinking water project in San Hpe village, Myanmar. Thai Beverage promotes post-consumption packaging management and recycling through initiatives like the Bring Back - Recycle program and waste management collaborations with local governments and 'Saleng' waste collectors on Koh Samui and Koh Si Chang. These efforts have reduced environmental impact and generated over nine million baht annually for local communities.



Thai Union Group Public Company Limited, a global seafood industry leader, continued its sustainability mission through the SeaChange® 2030 strategy, focusing on a sustainable future for both people and the planet. Its efforts cover a wide range of initiatives. from ocean conservation and waste management to employee and community welfare. At the core of this strategy is transparency and traceability, allowing consumers to track seafood products from catch to production and consumption via a QR code on the packaging. This year, Thai Union introduced the ECOTWIST® innovation, currently in the patent process, featuring lightweight, vertically stacked cans that reduce the use of steel, plastic shrink wrap. and paper packaging, offering a simple yet effective solution to reduce resource consumption.

#### ENERGY AND AUTOMOTIVE INNOVATIONS FOR CARBON FOOTPRINT REDUCTION

As the world faces environmental challenges, energy and automotive companies globally are rapidly developing innovations to minimize their environmental impact and maximize resource efficiency. PTT Group, a leader in Thailand's energy sector, operates on the principle of 'Balanced Sustainability,' aiming for energy security and business growth while targeting net-zero greenhouse gas emissions by 2050. Their 3Cs strategy includes: (1) Climate-Resilience Business: reducing emissions by exiting coal-related businesses and investing in renewable energy; (2) Carbon-Conscious Business: improving energy efficiency in existing operations through advanced technology to reduce carbon dioxide emission; and (3) Coalition, Co-Creation, and Collective Efforts for All: collaborating among PTT subsidiaries to invest in forestation projects to absorb





carbon dioxide and Carbon Capture Storage (CCS) to separate carbon dioxide from industrial installations and transport it to submarine storage locations. The company also showcased products made from recycled materials, including the r-Pet Upcycling Mini Box Bag and fashion items from the GC Circular Living Shop.

Solar energy is vital for sustainable energy development, as it not only helps reduce dependence on fossil fuels but also lowers greenhouse gas emissions while enhancing energy security for the country. **SPCG Public Company Limited**, a leader in solar energy investment, operates 36 solar farms across 10 provinces in Thailand, covering over 5,000 rai. The company has also expanded to Japan with three solar projects: Tottori Yonago Mega Solar Farm, Ukujima Mega Solar Project, and Kanoya Ohura Mega Solar Project. With a total capacity of over 878 megawatts, SPCG continues to lead in renewable energy production.

Beyond the energy sector, the automotive and transportation industries are significant contributors to carbon emissions. As a result, many car manufacturers have shifted towards developing electric vehicles to reduce their environmental impact.







At SUSTAINABILITY EXPO 2024, Hino Motors Sales (Thailand) Co., Ltd. showcased the fully electric Hino Dutro Z EV, which offers a 150-kilometre range on a 6-hour charge and can carry up to 1 ton of cargo. This model is already available in the market and in use by the leading Japanese logistics company, YAMATO TRANSPORT. Hyundai Mobility (Thailand) Co., Ltd. introduced the Hyundai IONIQ5, which features spacious interiors, multiple charging options, and an 80% charge in just 18 minutes. AAS Auto Service Co., Ltd. presented the Porsche Taycan, a luxury electric vehicle that took four years to develop and offers a 400-kilometre range on a single charge, completed with a four-wheel drive system. Additionally, Chulalongkorn University's Faculty of Engineering, in collaboration with the Broadcasting and Telecommunications Research and Development Fund for Public Interest (BTFP), developed and tested a 5G autonomous shuttle bus at the university and the BTFP office. The development of electric vehicles and clean energy technologies is revolutionizing travel and energy consumption, offering us all a unique opportunity to contribute to a truly cleaner, more sustainable future.



## SUSTAINABLE INNOVATION IN PACKAGING AND CHEMICALS

Packaging and chemical products touch every aspect of our daily lives, making it no surprise that leading companies in these industries are prioritizing environmentally friendly innovations. Indorama Ventures Public Company Limited, a global leader in petrochemical and chemical products, showcased the excellence of PET, an "Indispensable Chemistry" commonly used in food and beverage packaging. With over 1.5 billion US dollars invested, Indorama now operates 20 recycling plants worldwide and has processed more than 126 billion PET bottles into high-quality rPET. BASF (Thai) Limited introduced sustainable products in everyday life under the concept "Sustainable Future in a Day with BASF." These included toxin-free cosmetic ingredients from rambutan by-products which were approved by COSMOS, the environmentally friendly Elastocool® insulation material which features polyurethane





insulation that causes less environmental impact, and the development of wind turbine blade coatings aimed to extend service life and reduce wear. Royce Universal Co., Ltd. drives business growth with a circular economy model, focusing on recycling and upcycling under the ROYCECYCLING program. This initiative involved purchasing waste materials directly from consumers and businesses to create new products, including FDA-approved packaging for food and beverages, as well as construction and decorative materials under the LUMINA brand, and furniture and household items under the Modern Furniture, Chic, and Montana brands.

Berli Jucker Public Company Limited, a producer and distributor of consumer goods and packaging, enhances its production processes and product designs to reduce the consumption of energy and natural resources. For example, Parrot shower cream's refill pouches were resized and could reduce plastic use by 1.13 tons annually. Cellox introduced refillable tissue boxes, while Big C created baskets using LIMEX material, made from limestone, to reduce plastic. Thai Beverage Can Limited joined Aluminium Loop to support aluminum can recycling. Starprint Public Company Limited,







a paper packaging manufacturer, switches to FSC® (Forest Stewardship Council) certified paper and establishes the Innovation Center that encourages customers to choose more sustainable materials and innovations, such as brown paper boxes which are easier to recycle than colored boxes and a beverage packaging with less plastic coating but still eyecatching and durable. To ensure a beautiful and livable world for the future, we must act now by changing our lifestyle in all aspects from adopting sustainable energy and responsible consumption to environmental accountability. Together, we can build a more sustainable society and planet.





# **BETTER** COMMUNITY

#### **BUILDING BETTER LIVABLE CITES FOR QUALITY OF LIFE AND SUSTAINABILITY**



Building sustainable cities for future generations requires collaboration across all sectors, with everyone actively contributing to the development of sustainable urban environments. The BETTER COMMUNITY zone invited participation in the BUILDING INCLUSIVE COMMUNITY exhibition, which showcased successful examples of inclusive societies across social, environmental, and economic dimensions. Over 50 contributorsincluding individuals, as well as private and public organizations from both local and international contexts—presented their work in four main zones.



#### **ART DRIVEN CITY**

A city can grow sustainably by leveraging its cultural assets, attracting investment, tourism, creating local jobs, and gaining international recognition. Thailand has embraced art-driven initiatives to drive urban development. For example, the **Bangkok Art Biennale** has turned Bangkok into a vibrant hub for contemporary art and global culture. The **Design** Week, held in over 150 cities worldwide, highlights the role of design. The Pakk Taii Design Week 2024 focuses on supporting Southern Thailand's creative industries, showcasing regional products and adapting them for the modern world.

#### **COMMUNITY SHAPERS**

By leveraging skills, technology, and innovation, cities have strengthened entrepreneurship in agriculture, craftsmanship, and cultural tourism-related services. These efforts also foster organizations that reduce income inequality. One example is Uncle Ree's Farm, a modern urban farm that began as a waste management



initiative. Starting with a worm farm, it has evolved into a new agricultural model. Pracharath Rak Samakkee Social Enterprise Co., Ltd. follows the principle of creating income for communities to enhance happiness, focusing on agriculture, processing, and communitybased tourism to uplift communities nationwide. The reality show Win Win WAR Thailand seeks social entrepreneurs committed to creating positive social and environmental impacts and has engaged over 329 teams of social entrepreneurs since 2017.





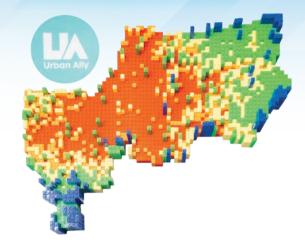


#### **LEARNING SOCIETY**

A thriving city must foster learning and empower communities to access and gain knowledge independently. By applying the concept of Citizen Science, such cities allow people to "understand, see, and feel" while preserving and passing down local insights. Notable examples include the "Old Neighborhood Tells a Story: Lifelong Learning City" project in Phitsanulok; eBird, a global platform for real-time citizen-reported bird sightings; and ThaiWater, an app developed by the Hydro-Informatics Institute (Public Organization) to help Thais monitor water and weather conditions and plan accordingly.







#### **CARING CITY**

This exhibition highlighted efforts to improve city well-being through design, including community engagement, public space management, travel information, and outdoor living initiatives. Key features include **Comfortable Restrooms**, adapting public restrooms to local environments and cultural values, and **Restoring Nature**, which **creates spaces to restore ecosystems and support native flora and fauna.** It also covered projects like **the 15-Minute Parks**, part of Bangkok's policy to expand green public spaces within a 15-minute walk.

The exhibition also connected to **the Gathering Space**, where visitors could hear diverse perspectives and exchange experiences with thinkers, designers, developers, and practitioners. This platform aimed to realize an ideal city, while promoting sustainability for future generations.





In addition to the exhibition, Frasers Property Group, a comprehensive real estate developer, presented their concept of "Creating Better Living for a Sustainable Future." Key highlights included: (1) Outlining sustainability goals based on the ESG (Environmental, Social, **Governance) framework,** covering renewable energy production, climate risk management, and upgrading properties to meet green building standards. Suppliers are also required to adhere to responsible procurement policies. Fraser Property Group is committed to developing real estate solutions while driving sustainability. (2) Showcasing standout projects across 20 countries. Frasers Property aims to deliver the best experiences to all stakeholders, in line with their vision: "Inspiring experiences, creating places for good." Their top projects, both in Thailand and internationally, stand out

for their functionality, design, and sustainability, enhancing the lives of residents and surrounding communities. (3) One Bangkok: the "Heart of Bangkok" **exhibition**, presented through a 360-degree projection mapping theater, focused on the concept of Quality of Life in One Bangkok. A key vision of the project is prioritizing people and creating sustainable living. This green smart city model in the heart of Bangkok features high-efficiency management systems to accommodate future changes with resilience, 50 rai of green space, and advanced technologies. The buildings have received platinum-level LEED certification for Neighborhood Development, as well as WiredScore and SmartScore certifications, with plans to achieve WELL certification to promote residents' well-being.



**MAIN EXHIBITIONS** 



"Low Carbon Living" was a key concept for the SCG booth, which showcased a model of a low-carbon city that harmoniously coexists with the environment and reduces greenhouse gas emissions. Key initiatives in this model city included: (1) Low-Carbon Living, encouraging the use of eco-friendly materials and efficient resource use to minimize environmental impact. For example, brands like NETS UP repurpose used fishing nets into marine materials, upcycling them into clothing and products to support a circular economy; (2) Low-Carbon Housing, designing homes that prioritize efficient resource use and calculate greenhouse gas emissions at every stage of construction to make residences more environmentally friendly; (3) Clean Energy, focusing on energy management, sustainable energy crops, transforming vacant land



environmental impact while decreasing reliance

logistics solutions, such as smart warehouses,



into solar power sources, and converting waste materials into energy; (4) Eco-Friendly Agriculture, reducing greenhouse gas emissions from agriculture through sustainable rice farming practices, minimizing water use, and decreasing methane emissions; (5) Green **Spaces**, fostering the restoration of forests and coastal areas to sequester natural carbon, promote biodiversity, and provide ecotourism opportunities while boosting local economies and community income; (6) Value Creation Through Waste, managing waste from start to finish to reduce its volume and

> on natural resources. For example, the "Waste Wittaya" project incorporates circular economy principles in schools to improve waste management practices; (7) Green Transport, implementing eco-friendly



where products are stored and managed in an environmentally friendly manner. This reduces the use of 40 forklifts per warehouse and incorporates solar energy into warehouse operations; and (8) Saraburi **Sandbox**, as Saraburi is the largest cement-producing hub in Thailand, the province aims to become a lowcarbon city through public-private-people cooperation (PPP). The initiative aims to reduce 5,000,000 tons of carbon dioxide equivalent emissions by 2027, promoting sustainable economic, social, and environmental development.



In response to the global crisis, green finance has become an essential tool for businesses to progress while prioritizing environmental concerns. As a leading financial institution, Kasikornbank introduced the concept "Pioneer the Edge of Actions to Enhance Sustainability," offering innovations in business and finance to drive change. One example is the Renewable Energy Certificate (REC) platform, which registers and sells certificates for renewable energy production to corporates and individuals, providing an additional income stream. Meanwhile, Government Savings





Bank (GSB) embraced the concept "Being the Capital that Supports Every Sustainable Effort," focusing on initiatives that create shared value. GSB's approach follows the Triple Bottom Line, which includes (1) People: promoting access to fair-interest financing and improving quality of life; (2) Profit: generating appropriate profits for societal benefit; and (3) Planet: working towards GSB's Net Zero 2050 goal.

Bangkok Bank reinforced its role as a leading regional financial institution driving sustainable growth for both businesses and society, continuing its mission of "Creating Value for a Sustainable Future." The bank highlighted its success through the Bualuang Save the Earth project, such as the "Rak Tha Chin" initiative, which addresses waste in the Tha Chin River, one of the five main rivers where waste flows into the sea. The bank offered sustainable financial products, including loans, bonds, and funds. Meanwhile, Krungsri Bank focused on becoming a regional leader in sustainability, prioritizing Sustainable Finance with a variety of solutions under the "Go Sustainable with Krungsri" concept, reinforcing its commitment to raising awareness of sustainable finance.







**MAIN EXHIBITIONS** 

## SUSTAINABLE TOURISM FOR ECO-CONSCIOUS TRAVELERS

Sustainable tourism has become a popular trend among eco-conscious travelers seeking relaxation while contributing to a sustainable society. Asset World Corp **Public Company Limited** introduced the "AWC Stay to Sustain: Stay One Night, Restore One Forest, Create Value for Communities" initiative in partnership with the Tourism Authority of Thailand and the Mae Fah Luang Foundation under Royal Patronage. For every stay at an AWC hotel, a tree is planted and cared for to restore and preserve community forests, promoting long-term conservation and providing income for the locals. Thai AirAsia Co., Ltd. launched its AirAsia Green Journey, aiming for Net Zero by 2050, with a focus on efficient fleet operations, green aviation measures, sustainable aviation fuel (SAF), and carbon offsetting. Their "Your Green Journey with AirAsia" program encourages passengers to reduce their carbon footprint while travelling. The Thailand Convention and Exhibition Bureau (TCEB) offers expert advice and tools for organizing sustainable MICE events, including a carbon footprint calculator to minimize emissions.







## CREATING SUSTAINABLE PRODUCTS ENHANCING COMMUNITY WELL-BEING

Public and private sectors play a vital role in creating knowledge such as resource management, adding value, and generating income from waste materials, thereby helping local communities thrive. Doi Kham Food Products Co., Ltd. demonstrated its 30-year commitment to sustainability by integrating royal initiatives with the Sustainable Development Goals. The company highlighted the recycling process for its UHT cartons and ICE POP products, upcycling them into new items. Proud Group, a property developer in Thailand, emphasizes sustainability through various projects like "Project Pineapple by PROUD," which promotes Net Zero Waste, No Single-Use Plastics, and Green Energy. The initiative collaborates with local communities to manage waste, restore the environment, and repurpose expired fruits into decorative products, while also supporting disadvantaged groups with food donations.





Terragro Fertilizer Co., Ltd. envisions supporting global food security by sharing knowledge from experiments to empower farmers and improve their livelihoods. The company promotes clean energy in production and repurposes used packaging into practical products. Similarly, Siam Kubota Corporation Co., Ltd. drives sustainable agriculture through initiatives such as Zero Burn for no-burn farming, the Nong Phak Bung Waste Management Model which tackles seasonal water challenges, and innovative projects like creating eco-friendly fabrics from rice straw blended with silk, transforming agricultural waste into eco-friendly streetwear. The Thai Chamber of Commerce collaborates with its partners to foster





sustainable economic growth, guided by the Sufficiency Economy Philosophy. Initiatives such as the Central Tham project enhance local products under the Good Goods brand, uplifting communities. Additionally, **the Community Organizations Development Institute** leads the "Beautiful Homes, Clean Water, Safety, and Sustainable Living" initiative, transforming unlawful riverside settlements into lawful, sustainable communities.









#### ART INSPIRES BALANCE FOR A BETTER WORLD

In a world where all living beings are deeply interconnected, biodiversity-encompassing microorganisms, plants, animals, and humans-forms the foundation of life. Any loss in biodiversity disrupts this delicate balance, endangering survival. This year, the SUSTAINABILITY EXPO spotlighted nature and biodiversity as the central theme of its

art competitions. Students, art enthusiasts, and artists from Thailand and ASEAN were invited to create works reflecting life's interconnectedness. The competitions welcomed diverse art forms, including photography, paintings, sculptures, and upcycled creations.





Now in its fifth consecutive year, the **TRASH to TREASURE Art & Design Contest** aimed to inspire creativity by breathing new life into discarded materials. The contest encouraged participants to transform waste into valuable and socially impactful creations, serving as a tangible example of circular economy principles and reuse. It featured two categories: 2D and 3D art. The exhibition also showcased winning works from the contest's debut in Vietnam.







This year, the work "Shell-Egg Weaving" by Ms. Piyapat Nakpech and Ms. Supaporn Sansuk from the Faculty of Fine and Applied Arts at Thammasat University won first place in the 2D category. As textile design students, they experimented with weaving plastic threads alongside yarn to intertwine seashells and eggshells, symbolizing a world rich in biodiversity. In the 3D category, the first prize went to "Trash Bonsai" by Ms. Suthasinee Sriwai and Ms. Orachon Wanpairoh, also from the Faculty of Fine and Applied Arts at Thammasat University. As textile and fashion design students, they had accumulated a significant amount of leftover fabric. They interpreted the contest's name, 'TRASH to TREASURE,' and transformed these scraps into a valuable bonsai tree. Using a variety of colors and sewing techniques, they shaped each branch to symbolize the diverse ecosystems on Earth and their ability to coexist in harmony.

The theme of biodiversity was creatively interpreted, sparking inspiration among the creators in the 13th White Elephant Art Award. This competition called on Thai artists to explore and express the concept of art in realistic or figurative styles, with works presented in both painting and sculpture. Through their creations, these artists brought to life the story of biodiversity—illustrating how each life plays a distinct role, yet is intricately interconnected, supporting and nurturing one another. They also starkly highlighted the catastrophic consequences of disrupting the natural balance. Mr. Teerapon Phopaesri, the winner of the White Elephant Art Award, shared the story behind his work "The Land of Life," which was meticulously crafted using a wood carving technique.



"The Land of Life" by Mr. Teerapon Phopaesri.

He sought to explore humanity's ability to adapt to the natural environment and foster a harmonious coexistence among all living beings, enabling safe and comfortable living for everyone. This interconnectedness has given rise to diverse cultures, each with unique characteristics. His aim was also to inspire a deeper awareness of the importance of conserving and preserving nature. By protecting biodiversity and maintaining ecosystem services, we can improve the quality of life for all, creating a beautiful, equitable, and sustainable environment.

Thailand's rich biodiversity was beautifully captured through the lenses of the contestants of **the 3**<sup>rd</sup> **A Moment in Nature Photography Competition 2024.** 



Organized by the Royal Photographic Society of Thailand under Royal Patronage, in collaboration with the Foundation for Khao Yai National Park Protection, the competition aimed to deepen appreciation for Thailand's natural resources and celebrate the breathtaking beauty of the country's national parks, while also raising awareness about conservation and the crucial work of those dedicated to protecting these ecosystems. Mr. Jakapan Chaumchuen won the "Natural Environment and Plant Species" category with his stunning photo, "Dawn at Pha Daeng Luang." The image, capturing the golden sunrise light filtering through trees and reflecting on water at Pha Daeng Luang in Mae Ping National Park, perfectly conveyed





"Dawn at Pha Daeng Luang" by Mr. Jakapan Chaumchuen.

nature's tranquility at dawn. In the "Moments of Life" category, Mr. Natanun Kanjanakuha won with "Watch Your Back," taken at Doi Suthep-Pui National Park in Chiang Mai. The photo shows a black baza perched on a log as a young shikra swoops in from behind, beautifully illustrating the delicate balance of life in the wild.

For the second consecutive year, **the ASEAN SX Photo Contest** was held to promote and raise awareness of sustainability efforts across the 10 ASEAN countries, and this year's competition was held with the theme "ASEAN Biodiversity." The exhibition showcased



"Watch Your Back" by Mr. Natanun Kanjanakuha.

winning photographs from each country, as well as the ASEAN Grand Prize-winning image. This winning photo, taken by Mr. Ho Trung Lam, captured a stunning coral reef in Hon Chong, Nha Trang, Vietnam. Mr. Ho Trung Lam, a dedicated photographer of coral reefs, waits each year for the special period between June and July, when the receding tide unveils the coral's beauty. He captured breathtaking images of the reef with the city's glowing skyline in the background. His photograph powerfully highlights the urgent need to preserve our natural environment, as the richness and biodiversity of our world areunder threat. Its erves as a call to action, urging everyone to unite in preserving the environment around us.



"Coral Reef in Hon Chong, Nha Trang, Vietnam" by Mr. Ho Trung Lam.





For the third consecutive year, Chaya Nitikorn Vintage Studio, located in the BETTER WORLD zone, offered professional photo services at 99 baht per picture, with all proceeds donated to charity. Inspired by biodiversity, the studio featured two backdrops: a forest scene and an underwater setting, complete with a model of "Moo Deng," the famous pygmy hippopotamus. This year, Chaya Nitikorn also had the honor of welcoming Her Royal Highness Princess Maha Chakri Sirindhorn, who visited the studio and had her portrait taken on Tuesday, 1 October 2024.

The SUSTAINABILITY EXPO 2024 not only showcased remarkable artworks but also hosted the **DUO SHOTS KNOCKOUT X eisa competition under the theme "Creatively Different."** This event aimed to inspire young participants to express their unique identities. The competition was a collaboration between the Royal Photographic Society of Thailand and the Education Institute Support Activity (eisa) program by Thai Beverage Public Company Limited. Students from nine universities participated, and Mr. Heman Samrongphan from Thonburi Vocational College emerged as the winner, taking home a cash prize of 10,000 baht.





# DISCOVER THE DIVERS OF BANG KACHAO THROUGH 10 PHOTOGRAPHS UNDER THE THEME "FOLLOW THE RIVER"

Rivers, often seen as the lifeblood that sustains ecosystems, nurture life, and shape cultural identities. This belief inspired the National Geographic Thailand Photography Contest 2024 "10 Photos Tell a Story Season 9," which sought exceptional photo essays depicting stories through 10 images. This year's theme was FOLLOW THE RIVER: A PHOTO JOURNEY THROUGH THE HEART OF SOUTHEAST ASIA.







Ms. Pimlapat Thanompan's black-and-white photo series, "The Divers of Bang Kachao," earned first prize. The series portrays Bang Kachao's treasure divers, a profession steeped in tradition and passed down through generations. Before each dive, divers conduct rituals to honor their mentors, seeking protection and good fortune. Equipped with a 20-kilogram stainless steel helmet connected to an oxygen hose, they entrust their lives to their crew above as they scour the riverbed for treasures such as jewelry, Pod Duang money, ancient coins, and ancient Chinese porcelain. However, the challenges of this profession have risen. The Chao Phraya River near Bang Kachao is now teeming with boat traffic, while layers of silt and urban waste continue to build up. As a result, these divers face increasing danger, and they are mostly hired for specific tasks such as retrieving items lost in the river or salvaging parts of sunken boats. What was once a livelihood tied to uncovering remnants of the past is now a rare and precarious endeavor.





## EAT AND SAVE THE WORLD FUTURE OF SUSTAINABILITY BEGINS ON YOUR PLATE



SX FOOD FESTIVAL 2024, the third edition of Thailand's largest sustainable food event, took place under the concept "Eat and Save the World," encouraging healthier eating habits for both personal well-being and a sustainable planet. This year's theme "Back to The Future: A Land of Sustainable Delights" invited everyone on a journey through time to explore the future of food, emphasizing the impact of our choices starting with what's on our plates. The festival featured seven innovative zones designed to educate and inspire attendees to be more mindful of their food choices. Over 130 eco-friendly food stalls offered sustainable dishes, while celebrity chefs from shows like MasterChef, Top Chef, Iron Chef, and Hell's Kitchen prepared creative, health-conscious menus.

Big change does not require grand gestures. By simply transforming our plates, we can make a powerful difference. The SX FOOD FESTIVAL 2024 called on everyone to join the movement, proving that sustainable eating is a choice we can all make for a better future.







#### ZONE A: NOAH FUNCTIONAL FOOD

Discover the power of healthy foods enriched with herbs and beneficial ingredients. This zone showcased nourishing options packed with vitamins, minerals, fiber, probiotics, and antioxidants, offering more than basic nutrition by promoting overall health, supporting immunity, improving digestion, and giving sustained energy. Notable products included the superfood drink SP Super Plant Protein, Drinks, blended with plant-based protein, mixed vegetables, iron, magnesium, and essential vitamins to support bodily functions; the mixed Tiliacora triandra and pandan drink, enriched with gymnema extract and made from chemical-free local ingredients with rich antioxidants; Mae Prapai's steamed curry pudding with fresh coconut milk with medicinal herbs known for their health benefits; Sai Oua Phao Tao Luang from Phrae province, made with over 30 local herbs and ingredients; and Eggyday's starch-free protein noodles and rice, providing protein equivalent to three egg whites per serving that supports muscle growth, weight management, and blood sugar control.

This zone also showcased a wide variety of Thai and international herbs both in fresh and dried forms.

Highlights included caricature plant used to reduce fevers in children; Beijing grass, a remedy for sore throats; Ixeris debilis, known for its cooling properties and ability to soothe itchy sores; Indian borage, helping relieve indigestion and stimulate appetite; mint, a natural solution for bloating, nausea, and vomiting; and rosemary, promoting brain health as well as alleviating chills and fever.

## ZONE B: INTERSTELLAR LOW SUGAR, LOW SODIUM FOOD, LOW FAT

This zone offered a unique experience with healthfocused foods that are low in sugar, sodium, and fat, helping reduce the risk of heart disease and high blood pressure, which can lead to other health issues. Notable offerings included the innovative fish sauce with 62% less sodium, made from sathon leaf extracts and developed by Mahidol University's Public Health Faculty; F&N Dairies' low-fat dairy products with reduced sugar, enriched with vitamins D and B1; SEALECT's canned tuna products, such as tuna steak in Himalayan brine with lower sodium; King Oscar's sardines and mackerel in olive oil, which are high in protein and low in fat; Mae Suwan's bua lou (glutinous rice balls), made with monk fruit sweetener, ideal for diabetics and the health-conscious; Gusto's Thai coconut pancakes, made from glutinous rice flour and coconut; and Moodaeng's Amphawa ice cream, sweetened with low-calorie coconut flower sugar.

The zone also featured activities where participants could analyze their body composition, including measurements of fat percentage, skeletal muscle mass, and visceral fat levels. These insights helped individuals understand their metabolism and resting metabolic rate, giving more informed choices about the right diet.



## ZONE C: TOMORROWLAND CELEBRITY CHEF & CLEAN ENERGY

This zone focused on clean energy and food production powered by renewable sources that reduce pollution and minimize greenhouse gas emissions, including solar, wind, hydro, geothermal, and kinetic energy. These sustainable energy solutions were applied in agriculture, such as solar panels on greenhouses, wind turbines for irrigation, and biomass for producing organic fertilizer.

At the heart of the zone, renowned chefs and health experts shared their methods for preparing eco-friendly, health-conscious meals. One of the innovations featured was the Kinetic Footpath, which converted the energy from footsteps into electricity – ideal for use on city sidewalks to generate clean energy.

The zone also showcased a variety of sustainable dishes from celebrity chefs, including Chef Ploy's crispy kale with egg white mayonnaise, Chef Tien's sweet charcoal-grilled





pork with sugarcane syrup, and Chef Mam's whole grain rice with chicken and longan for sweetness instead of sugar. In addition, visitors could enjoy healthy food from popular restaurants and brands, such as Qfresh's bologna sausage-style tuna slices, OMG Meat's plant-based meals that were free of animal products and cholesterol, ZEAVITA's collagen made from fish skin and scales – a byproduct of fish production, and HAI umeshu (plum wine) which earned Double Gold at the San Francisco World Spirits Competition.

## ZONE D: TRON LEGACY LOCAL INGREDIENT

Transportation is a major contributor to greenhouse gas emissions. By choosing food made from local ingredients or those sourced nearby, we can reduce global warming and support the local economy





sustainably. Food also carries wisdom and traditions passed down through generations. Historically, people selected foods that suited their environment, lifestyle, and climate. For example, northern dishes often feature kaffir lime leaves, ginger, galangal, tamarind, and sticky rice - ideal for colder regions. Isan cuisine is known for fermented foods like the fermented fish pla ra and pla daek which could be kept for longer. Southern dishes focus on curry pastes, coconut milk, fish sauce, and chilies, complementing seafood flavors. Notable businesses in this zone included Pad Thai Kwanjira, offering a recipe from World War II with 100% organic, local ingredients that help generate income and strengthen the community; Lime-Palm Garden, serving a drink made with Phetchaburi's GI-certified lime juice and palm sugar; and 3 Pi Nong Chicken Rice, using chemical- and hormone-free chicken with premium jasmine rice.



#### ZONE E: AVATAR VEGAN & PLANT-BASED

This zone catered to health-conscious consumers with plant-based and vegan foods free from animal products. It focused on fruits, vegetables, grains, nuts, seeds, and plant-based proteins. Notable offerings included Happy Gut BKK, offering fermented tea, plant-based yogurt, and tempeh made from fermented yellow soubeans; Sesamilk's sesame milk products rich in sesamin, which could help reduce cholesterol and the risks of heart disease and cancer; Hatchery's bread, using natural yeast with no added sugar or milk; Sookjai Market, featuring products from the farmers who followed the Sampran Model of organic farming; and Lang Khao Wild Honey, offering honey from Ban Huai Phichai in Loei Province to support the conservation of local bee species and forests as well as generating sustainable income for the community.





This zone also showcased cutting-edge technology like customized 3D-printed food technology. The technology can create meals tailored to individuals' specific health needs, such as meals for elderly people who have difficulty chewing or swallowing certain foods. It can also create steak mimicking the real meat texture which could help reduce beef consumption.

### ZONE F: THE MARTIAN LOW CARBON

This zone showcased low-carbon foods produced with a focus on minimizing greenhouse gas emissions and reducing energy use in both cultivation and transportation. A standout feature was the vertical farming display, where plants were grown in stacked layers within greenhouses, allowing for precise control over water, nutrients, and light. This method enabled year-round crop production in smaller spaces, reducing the need for long-distance transportation and lowering energy consumption, while also allowing farming to be closer to urban areas.

S&P introduced bakery products certified with the "Carbon Footprint Reduction" label, such as butter and banana cakes. Five Star Chicken showcased its recycling



efforts, turning used cooking oil from 5,000 branches into sustainable aviation fuel through the "Tod Mai Ting" (Fry to Fly) campaign. HILLKOFF presented its low-carbon Thai espresso coffee, which could reduce greenhouse gas emissions by over 50% and won the Carbon Neutral Thai Arabica award. Star Coffee grew coffee under large trees without harmful chemicals and used bioplastic cups that would decompose in 1–2 years. Bangkok Rooftop Farming earned second place in the social and community organization category for growing organic salad vegetables in a circular farm model. YakKaJon promoted dietary and plantation diversity, using natural farming techniques from the "Khok Nong Na" model including rice fields, reservoirs, mounds, and five-level forests on the mound to support the production of diverse crops and foods.





## **ZONE G: WALL-E RECYCLE**

The SX FOOD FESTIVAL continued its commitment to raising awareness about waste segregation, especially food waste and post-consumer packaging. The Bring Back-Recycle Stations were set up to collect used packaging under the Bring Back-Recycle project by Thai Beverage Recycle Co., Ltd., the Thailand Institute of Packaging and Recycling Management for Sustainable Environment (TIPMSE), the Federation of Thai Industries, the PackBack initiative, and Kasetsart University's Faculty of Environment. At each station, there were staff providing guidance on sorting various waste types, including clear plastic bottles, glass bottles, aluminum cans, bones, and hard shells. This year, the SX FOOD FESTIVAL was again supported



by Oklin (Thailand) Co., Ltd. with their composting machines from Australia that could turn food waste into fertilizer within 24 hours. The machines used at the festival were the 5-kilogram and 25-kilogram models, suitable for households and restaurants. Additionally, this year featured the composting machines from ShooShoke developed by the Bang Kachao Organic Farming Community Enterprise. Originating from the need to eliminate waste from agriculture and food business, the community enterprise finally developed the composting machine that could turn food waste into fertilizer for their use and for sale with support from Phranakhon Rajabhat University and PTT's Innovation Smile Project. At the festival, ShooShoke also gave away biochar fertilizer to encourage attendees to enhance their spaces with greenery.





#### PLAY, EXPERIMENT, AND DISCOVER PATHWAY TO SUSTAINABLE DEVELOPMENT

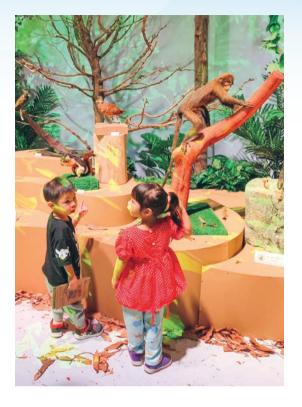
SX KIDS ZONE provided a creative learning space under the theme 'The Future Shaper,' designed to nurture the next generation through play, experimentation, and learning. The zone also featured shops run by young entrepreneurs, as well as talks, demonstrations, and workshops to spark inspiration and imagination

At the SX KIDS ZONE, children began their journey by registering for a personal passport, which they used to explore various activity stations. At the center of the zone was the KIDS MINI STAGE, a vibrant space for play,



experiment, and learning through engaging talks, live demonstrations, and interactive workshops. Highlights included the workshop by TOYSHACK FOR KIDS where children made piggy banks from scrap wood, the National Science Museum's sessions on natural dyeing, hornbills' sources of food, and their important role in the ecosystem, T&B Soap House's cucumber lip balm making workshop; and a wildlife photography talk by 13-year-old photographer Wasu Vidayanakorn.





Children got to enjoyed the fun and educational experience that enhanced their skills, imagination, and sustainability awareness through engaging activity stations. The journey began with the **Biodiversity Exhibition**, presented by AME in collaboration with the National Science Museum (NSM), FabCafe, and the U.S. Embassy in Thailand. This exhibition introduced four key themes: "Discover" by learning about the wonders of forests and wildlife, "Care" by understanding biodiversity and animal-forest coexistence, "Protect" by identifying threats on ecosystems and exploring solutions, and "Realize that Conservation Begins with Us" by inspiring personal commitment to conservation. Children also got to observe endangered species







through XR technology, multimedia presentations, and taxidermy collections, and learn about five ecological heroes: earthworms, bees, tigers, hornbills, and humans. Additionally, NSM hosted hands-on workshops, including 3D models of animal habitats, miniature banyan trees, and more.

Recycling Hero by Thai Beverage Recycle Co., Ltd. invited children to become waste-sorting heroes through simple actions: Sort Immediately-to reduce landfill waste; Sort Correctly-to bring in some household income from materials; Sort Constantly-to reduce greenhouse gases; and Sort and Send Properly-to send waste to proper recycling facilities. By sorting waste





correctly and directing it to the right recycling centres, they can foster a more sustainable society and environment.

This year, Magnolia by F&N Dairies (Thailand) Limited invited children to take part in the "World-Saving Ladder Game," a fun journey toward the net zero goal. Throughout the journey, children learned about the challenges and solutions for achieving a sustainable, carbon-neutral future. The event also promoted health with the new NutriWell Soy Milk products in Oat & Quinoa flavor, with high fiber, and Flaxseed Oil flavor, with Omega 3, 6, and 9, high protein, and Vitamin B1.

Another popular activity station was the **Chess Kids Club** by the Golden King Club, which offered chess lessons to stimulate brain development, improve concentration, and reduce stress. The sessions were led by Thailand's





chess champions, national coaches, and chess experts. The SX RAPID CHESS & MAKRUK CHAMPIONSHIP 2024 was also hosted, featuring international rapid chess and traditional Thai chess competitions for children in age groups 8, 10, 12, 15, and 18 years. Another powerful catalyst for shaping a sustainable society is a love of reading fostered from an early age. The Happy Read Project by Amarin Corporation Public Company Limited, in collaboration with Amarin Book Center Co., Ltd. and Amarin Television Co., Ltd., and supported by Thai Beverage Public Company Limited, aimed to inspire young readers and promote sustainable learning, while also breathing new life into school libraries. The station featured bookshelves stocked with a diverse selection of books, along with engaging activities and fun Thai word games to encourage children's love of reading.







Astra Academy International School showcased their School of the Future concept, helping students adapt to the rapidly changing world. The school also fostered a sustainable mindset through activities such as teaching waste separation, turning food waste into fertilizer, and encouraging the use of personal water bottles to reduce plastic waste.

The **Win Win WAR Thailand OTOP Junior**, a television program by C asean, built on the success of the OTOP Junior competition. Created through a collaboration between the Community Development Department and Thai Beverage Public Company Limited, this initiative aimed to inspire and empower young people to explore their potential in product development and entrepreneurship, while also benefiting their communities and society. In recognition of its impact, the program won the 37th TV Gold Award for Outstanding Youth Promotion in 2022.

On weekdays, an open space was devoted to art classes where children could explore various art forms like sculpture, painting, and mixed media, using natural materials. Led by top children's art schools, these sessions sparked creativity by linking imagination with the natural world. On weekends, the spacetransformed into **Kids Weekend Market**, offering young entrepreneurs an opportunity to set up booths and develop valuable business skills from an early age.





## SX MARKET PLACE

MARKET FOR CREATIVE AND SUSTAINABLE PRODUCTS





Set in a tranquil urban park, the SX MARKET PLACE received excellent feedback. It featured innovative sustainable products while supporting Thai businesses from upstream to downstream. Divided into sections for eco-friendly, craft, and shopping enthusiasts, the marketplace offered visitors the chance to explore and support over 300 vendors.



#### SUSTAINABLE DESIGN PRODUCT ZONE

The Sustainable Design Product Zone showcased environmentally conscious items, creating a ripple effect of action, and aligning with the UNSDGs. Each practical product encouraged habits that contribute to a better world. Highlights included Design Excellence Award (DEmark) projects, which featured Thai designers and entrepreneurs on a global scale, focusing on usability and sustainability. Examples included Good Nature's compostable packaging made from fallen

orange tree leaves, embodying the concept of 'From Earth, To Earth'; Doi Tung's 'Ready to Rug,' which used leftover fibers to craft sea creature-shaped rugs; Rumba Bor's 'Choei' collection of unique stools made from recycled plastic; and Hugely's durable bags crafted from retired fire hoses. SCG also featured upcycled products such as SCRAP SHOP's bags made from reclaimed dialysis solution bags

#### **COMMUNITY PRODUCT ZONE**

The Community Product zone featured a variety of community products that blended traditional wisdom with modern lifestyles, inspiring cultural appreciation and supporting income generation within local communities. Highlights included products from the Pracharath Rak Samakkee's network such as embroidered Lanna-style fabrics from Lamphun, tie-dye fabrics from Phayao, and processed seafood from Trang; products from the Local Pakaoma Project - A Thai Handicraft's network; and products from the Saraphad Sabphasilp's network. The Good Community with Smiles project also showcased products from supported communities, including products made







from distinctive woven fabric by Paka Kyaw people, preserving their cultural heritage. The SCGC's NETS UP booth transformed discarded fishing nets into marine materials, restoring ecosystems and supporting local fishermen. The Kid-Jak-Toong booth featured bags made from repurposed cement bags, promoting SCG Circular Way. The zone also featured the TIGER Lifestyle's TIGER x PHANNAPAST collection, including nylon tote bags, fur bags, shirts, and pants

### **INNOVATIVE PRODUCT ZONE**

The Innovative Product zone featured unexpected innovations with the potential to transform everyday life. Highlights included NATUREN, an edible coating that extended the shelf life of fruits and vegetables without chemicals, preserving their full nutritional value: TheApuds' skincare items, using banana peel extracts to maintain skin moisture; Enviro Board or Composite Board, made from 99.99% recycled UHT cartons, offering eco-friendly, durable, moistureresistant, and noise-reducing alternatives to hardwood; and Oklin Composter, using biotechnology to reduce food waste by up to 90% in just 24 hours.







#### **GARDEN AND FARMER MARKET ZONE**

The Garden and Farmer Market zone featured a variety of plants and products promoting urban green spaces, along with organic agricultural goods and processed items from across Thailand. Entrepreneurs shared their stories through products, such as PoopaeTamAyng, who turned surplus vegetables from her garden into processed foods for extra income; Sutee Organic Farm, showcasing fermented mangosteen cider soda; Pasutara Farm in Suan Phueng District, Ratchaburi, offering sustainable lemon-based products like alcohol spray and lemon-infused honey; and Suansilp Nhongmon, introducing Craft Cola, a healthy soda alternative made with imported cola seeds, organic sugar, flower of salt, and asparagus fern leaves.

### **ART MARKET ZONE**

The Art Market zone celebrated sustainable art with a diverse collection of works, such as sketches for sale by sketch artists from Bangkok Sketchers Group and Urban Sketchers Thailand. The zone also offered souvenirs from the Bangkok Art Biennale Foundation, while showcasing works from the White Elephant Art Award and CRAFTED by the RPST (Royal Photographic Society of Thailand) to promote a love of photography. Highlights included pieces by renowned artists such as Pinit Phantaprawat, Anek Payungton, Pantip Vorachina, Apiwat Banler, and Boonnam Sasud.







#### **BOOK MARKET ZONE**

The Book Market zone was a creative space showcasing books focused on sustainability, covering topics like the environment, society, culture, and innovation. Believing that "the love of reading" advances society, the zone featured the NSM Science Shop from the National Science Museum, offering science books and learning materials. Naiin, a beloved Thai bookstore for over 31 years, presented best-sellers on education, health, and inspiration. Other booths included Amarin Kids, Sarakadee-Muang Boran-Nairobroo, Learning Station, Pordee, Pelangi, KidPlus, Children's Club, and Chanchai Books, among others.







## BREATHING LIFE INTO OVERLOOKED ITEMS SHAPING A WASTE-FREE ENVIRONMENT FOR A SUSTAINABLE FUTURE



The SX REPARTMENT STORE returned for its second year, transforming into a dynamic hub for exchanging overlooked items under the theme "Collect and Share." This initiative championed waste segregation, ensuring that every item contributed had the potential for reuse or proper recycling.

Following the SUSTAINABILITY EXPO 2023, the store remained operational throughout the year by collecting overlooked items and offering high-quality second-hand goods for sale. Thanks to collaborations with partners and various organizations, the initiative generated proceeds, which were donated to the Chaipattana Foundation, the Mae Fah Luang Foundation, the Yuvabadhana Foundation, and the Thai Red Cross Society, amounting to 370,365 baht.

This year, the SX REPARTMENT STORE operated under the principles of a circular economy, aiming for long-term sustainability without relying on external funding. Before the SUSTAINABILITY EXPO 2024, the collection points for overlooked items were set up at eight locations: ThaiBev Quarter, Sangsom Building at Vibhavadi Rangsit road, CW Tower, The PARQ, The Street Ratchada, C asean Samyan CO-OP at Samyan Mitrtown, SX Space at Queen Sirikit National Convention Center, and Thai Glico Co., Ltd., and its production facility in Bangkadi Industrial Park. The store collected donations of second-hand items in good condition, including clothes, sports equipment, toys, learning tools, and books. Donated items were sorted by type and condition: those in mint condition were sold, usable items in acceptable condition were donated for charitable purposes, and unusable items were sent for recycling.

The SX REPARTMENT STORE zone at the SUSTAIN-ABILITY EXPO 2024 was located in front of Hall 8. This year, the store continued its collaboration with





students from the Beta Young Entrepreneur program at the College of Entrepreneurship, University of Thai Chamber of Commerce, and expanded its partnership to the Jang Wan Khaproject under The Mirror Foundation to provide opportunities for the elderly and homeless to earn a living. Before the event, training sessions were held for both Beta Young Entrepreneur students and Jang Wan Kha staff to help them familiarize themselves with one another and acquire the skills necessary for sorting items and managing the store. This year, the SX REPARTMENT STORE received an overwhelming response with a total of 5,862 donated items, gaining 99,185 baht in sales, and 1,264 of these items were donated to others. Part of the proceeds went toward wages for the Jang Wan Kha staff and operational costs for future store openings. The remaining proceeds were donated to the Chaipattana Foundation.

For the SX WASTE MANAGEMENT, a drop off station was set up at Benjakitti Forest Park Museum, where various types of used packaging were gathered and sorted. These included aluminum cans, glass bottles, plastic bottles, plastic packaging, cardboards, white and black papers, mixed-color papers, beverage cartons, undergarments, and electronic wastes. The initiative was supported by several projects, such as the Bring Back-Recycle project by Thai Beverage Recycle Co., Ltd., the AIS E-Waste project by Advanced Info Service Public Company Limited, the Recycle for Life project for the Prostheses Foundation, the Green Shelter project by SCG Chemicals Public Company Limited (SCGC) and Sabina Public Company Limited.





In addition to the SX REPARTMENT STORE, the SUSTAINABILITY EXPO 2024 advanced its mission to raise awareness about the hidden value of unused items or waste. In collaboration with the Bangkok Art Biennale 2024, the event featured an art workshop led by Choi Jeong Hwa, a globally recognized artist known for his expertise in visual arts, industrial designs, and large-scale sculptures made from everyday materials. Participants brought used plastic bottles and cups to contribute to the creation of art under the theme "YOU'RE MY SUNSHINE." The initiative also partnered with the SX TRASH to TREASURE contest and four Starbucks locations (ThaiBev Quarter, Samyan Mitrtown, The Street Ratchada, and Queen Sirikit National Convention Center) to collect cleaned plastic cups and lids for the workshop.









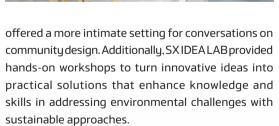
## INSPIRING THOUGHTS, DIALOGUES, AND ACTIONS FOR A GOOD BALANCE AND A BETTER WORLD

This year, the SUSTAINABILITY EXPO featured key activities across three main stages, exploring sustainable development from various perspectives. The TALK STAGE and SX PLENARY HALL hosted discussions on topics like climate adaptation, future community building, accessible infrastructure, green economies, and the evolving role of organizations, alongside promoting physical and mental health. The GATHERING SPACE in the BETTER COMMUNITY zone









We believe that the diverse and holistic discussions on sustainability will propel us toward a more balanced world in terms of the environment and society. The shared expertise and guidance will support the development of new, sustainable approaches, creating a resilient and prosperous future for all life on Earth.







## VISION 2030 DRIVING COLLABORATION FOR A SUSTAINABLE FUTURE

The world faces a major challenge in achieving the SDGs over the next six years, requiring swift action from organizations at all levels. The TSCN CEO PANEL brought together four leaders from top business organizations within the Thailand Supply Chain Network to discuss "Vision 2030: Driving Collaboration for a Sustainable Future."

Mr. Thapana Sirivadhanabhakdi, Group Chief Executive Officer of Thai Beverage Public Company Limited, highlighted that businesses often contribute to environmental challenges. Without a balanced approach guided by the Sufficiency Economy Philosophy, extreme actions may occur without considering sustainability. He emphasized the importance of embracing the 5Ps framework-Planet, People, Prosperity, Partnership, and Peace-to promote long-term sustainability. As we seek growth, communities must unite and strengthen their ability to support themselves before extending support to others. Such collaboration will become a creative force for the future.

Mr. Thammasak Sethaudom, President and Chief Executive Officer of SCG, emphasized that Thailand's sustainable development requires focus on two key areas: reducing carbon emissions and enhancing competitiveness. SCG proposed that the government develop a comprehensive recycling master plan to drive genuine recycling activities and remove regulatory barriers to enable the purchase and sale of clean energy through smart grids. Additionally, developing efficient energy storage systems will ensure easy access and a stable energy supply, supporting the country's transition to clean energy.

Mr. Suphachai Chearavanont, Chief Executive Officer of Charoen Pokphand Group (CP Group), emphasized that achieving greenhouse gas reduction goals requires collective commitment. CP has set a target to reach net-zero carbon emissions by Scope 3 by 2050, focusing on reducing carbon dioxide and methane emissions, managing waste, and promoting sustainability through education. The company also aims to cut Scopes 1 and 2 emissions by transitioning to renewable energy, with a target of 50% renewable energy use, including solar, biomass, and biogas. CP also strives for zero waste through fertilizer production and 100% durable/reusable/disposable packaging.

Mr. Thiraphong Chansiri, President and Chief Executive Officer of Thai Union Group, emphasized the vision of Healthy Living and Healthy Oceans, focusing on both consumer well-being and marine resources. Sustainability is essential for Thai Union's survival. Through delivering nutritious products and ocean preservation, the company advances its SeaChange® 2030 strategy with 11 key initiatives spanning sustainable production, aquaculture, responsible fishing, labor management, and responsible procurement. These efforts aim to transform the seafood industry and ensure a sustainable future for all.

Business leaders agree that addressing environmental challenges requires collaboration across all sectors for the planet's sustainability. In the future marked by natural disasters and climate change, preparedness and action are crucial. In the next section, we will explore expert insights and strategies for adapting to and tackling these challenges sustainably.



## CLIMATE ADAPTABILITY NAVIGATING CLIMATE CHALLENGES AND PREPARING FOR THE FUTURE

Climate change has become a global crisis, affecting all aspects of life on Earth—from unprecedented floods to prolonged droughts and rising temperatures that challenge human limits. These signals show that simple preparation is no longer sufficient. The world is urging us to adapt.

In recent years, the increase in natural disasters worldwide shows that environmental issues are no longer distant concerns but have started to affect everyone. During a panel discussion on "Economic Sustainability: Turning Crisis into Lasting Prosperity," Mr. Varawut Silpa-archa. Minister of Social Development and Human Security, shared his insights. He noted that those who address environmental issues are often at the top of the social pyramid, while those at the bottom focus on basic needs like food and survival. Vulnerable groups are the most affected and take the longest to recover. It is crucial to foster understanding and encourage adaptation. We are like individuals sawing off the branch we sit on, unaware of when it will give way. Similarly, monoculture and deforestation create a domino effect, leading to inevitable collapse.



In the panel discussion "How Can We Survive in a Warming World?," **Asst. Prof. Dr. Thon Thamrongnawasawat,** Associate Dean for Special Affairs at the Faculty of Fisheries, Kasetsart University, shared, "We only feel the urgency when we see the reality. For instance, watching rivers carry away vehicles makes the issue feel immediate." Dr. Thon emphasized that within the next 10 years, the planet's temperature map will shift from green to red, symbolizing extreme heat and widespread weather events that will affect every corner of the globe. These changes will have direct consequences, such as increased flight turbulence due to significant temperature variations.

As we gain a clearer understanding of environmental challenges, many recognize that "adapting" is crucial for survival, but we must also focus on "designing" our surroundings to navigate these issues. During the panel discussion "Design for Climate Adaptation," Mr. Chutayaves Sinthuphan, Chief Sustainability Officer at the Natural Agriculture & Architecture Trust for Urban & Rural Ecologies (NAATURE), explained that climate change is a persistent issue. "Nature strives to restore balance, and we must learn from it, incorporating its principles into city planning and lifestyle designs." Dr. Polpat Nilubon, Head of the Water Adaptation Innovation Center (WAIC), highlighted the distinction between government-led large-scale and long-term projects, like drainage systems, and individuals generally engaging in autonomous adaptations, such as raising homes to combat flooding. To establish a common ground for the public and private sectors and address the question of





where, how, and when development should begin, he introduced the idea of "Opportunistic Adaptation," which views infrastructure deterioration as an opportunity for renewal. For example, aging buildings or roads can be redesigned to meet current needs. Dr. Polpat also discussed flood adaptation projects, emphasizing water management systems that serve multiple purposes, such as recreational parks or commercial spaces during dry periods, while remaining flexible for floodwaters during the rainy season. This issue was further explored at the **SX2024 HACKATHON** X Circular Innovation Challenge 2024, where the winning team from Malaysia, E-Hole, presented a revolutionary innovation for urban flood prevention and maintenance efficiency-a real-time drainage monitoring system designed to enhance flood prevention and management. This innovation collects and analyzes data on drainage conditions to predict future issues, ensuring effective and timely flood prevention and management solutions.







In addition to physical design, we should consider adapting our lifestyles, businesses, and even society as a whole. In this context, Ms. Kobkarn Wattanavrangkul, Vice Chairperson of the Thai Chamber of Commerce. shared her perspective during the panel discussion "A Good Balance for a Better World." She emphasized that the Sufficiency Economy Philosophy serves as a crucial foundation for sustainable national development. It provides a valuable framework that reminds Thais to practice moderation, act thoughtfully, and prepare for change, benefiting both personal and business life. **Dr. Sirikul Laokajorn,** Director of the "Por Laew Dee" project, further explained that sustainable business requires a balance between profit, people, and the planet. When all sectors adopt the Sufficiency Economy Philosophy, it can lead to positive outcomes at the individual, organizational, and societal levels.

Another key platform highlighting public and private sector adaptation and collaboration is **the Sweden-Thailand Sustainable Development Forum 2024.** This forum facilitates the exchange of knowledge and best practices among state and private agencies in Thailand and Sweden, aiming to foster sustainable development cooperation. The event showcased innovative solutions addressing challenges in energy and resource efficiency, as well as reducing environmental impact.





While we may excel at adapting, our lifestyles and consumption continue to generate waste. Therefore, our adaptation efforts should include comprehensive waste management. During the panel discussion "Upcycling Waste: Innovative Ideas for Repurposing Waste and Promoting Sustainability," Mr. Chanat Wutthivigayakarn, Content Creator of KongGreenGreen, highlighted that waste is a valuable resource often misplaced, and with proper management, nearly 100% of materials can be recycled and reused. Mr. Sompop Majiswala, developer of Recycoex Application, presented an app that simplifies waste trading, inspired by his experience in the construction industry, where recycle materials are heavily utilized. Despite the perception of abundant waste, industry discussions revealed the real challenge is the lack of sufficient recyclable waste to meet construction material demands. To address this, he developed an app as a central platform for purchasing waste from large-scale management sources like schools, hotels, and shopping centers.

For managing household food waste, **Mr. Pitchakarn Rueksakunruang**, Policy and Planning Analyst at the Department of Local Administration, shared during a workshop on creating a "Compost Bin to Reduce Global Warming" that the Ministry of Interior recognizes that non-separated waste is sent to landfills, leading to the release of methane and carbon dioxide. In response,



a policy has been introduced to promote the use of compost bins in households to manage organic waste, including food scraps, vegetables, fruits, and leaves, which naturally decompose over time.

The examples above show that adapting to climate change is not just about survival-it offers an opportunity to turn challenges into catalysts for sustainability. The focus is on creating a system where humans and nature can move forward in harmony. The next section explores ideas on the green economy, a key element in promoting development that minimizes environmental impact while ensuring economic stability and improving quality of life.

## GREEN ECONOMYIMPROVING FOR TRANSFORMATION SUSTAINABLEECONOMY AND ENVIRONMENT

The green economy goes beyond eco-friendly development; it seeks to balance economic growth with the preservation of natural resources for the future. By promoting efficient resource use and investing in technologies that minimize environmental impact, the green economy supports both business goals and true sustainable development.

Ms. Nuansiri Vaidyanuvatti, Executive Vice President of Krungthai Bank, shared insights during the panel discussion "Talking Climate & Biodiversity Action: From Nature-Based to Finance Solutions for Our Planet." She explained how the bank, in collaboration with the United Nations Development Programme (UNDP), created a positive environmental impact through a crowdfunding project that supported Koh Tao Island in Surat Thani province after it lost tourism revenue due to the COVID-19 pandemic. The funds were used to hire taxi boats and fishermen to collect waste around the island, removing 4 tons in just 3-4 months. In the second year, the bank partnered with the Raks Thai Foundation to promote the use of Fish Aggregating Devices, aiming to expand marine life breeding and create a fund for long-term community self-sufficiency. They also collaborated with local municipalities to implement a 20-baht island entry fee and set up an environmental conservation fund that supported biodiversity, boosted fishermen's incomes, and attracted more tourists.



The agricultural sector, which relies heavily on land, water, and labor, is facing severe impacts from climate change. **Dr. Thanyaporn Krichtitayawuth**, Executive Director of the UN Global Compact Network Thailand, spoke during the panel discussion "AgriTech: Unlocking Agricultural Potential for Sustainability," highlighting that modern farmers' adaptation should extend beyond technology adoption to include innovative approaches that blend technology with local wisdom. She encouraged farmers to embrace the sufficiency economy philosophy, as taught by King Rama IX, and urged the government to promote renewable energy and low-carbon farming practices through supportive policies.



During the panel discussion "Building Sustainable Communities," professionals from the tourism industry shared their experiences in creating sustainable businesses while addressing economic, social, and environmental challenges. Speakers included Mr. Piuapoom Seechang. Marketing Director. Thailand B2B at Michelin Siam Co., Ltd., Mr. Pasu Liptapanlop. Executive Director of Proud Group, and Mr. Somsak Boonkam, Founder and CEO of Local Alike Co., Ltd. Mr. Somsak said. "We use tourism to address environmental, economic, and social issues. Bu integrating tourism with livelihoods like agriculture and fishing, we create year-round revenue. As the economy improves, the environment must progress as well. Communities must realize that if their natural landscapes or traditional lifestyles fade, tourism will struggle. Globally, people are shifting from sustainable tourism to Regenerative Tourism. We aim to welcome tourists while making our forests greener, our seas more abundant, and our islands less polluted. Sustainability requires a long-term approach. We are committed to building lasting relationships with communities and envisioning a future where future generations return from cities to manage their villages."

A green economy extends beyond environmental conservation, fostering skill development and opportunities within communities to sustain local resources and culture. The Hmong Cyber group exemplifies this by leveraging the resources and culture of Ban Nam Juang and Ban Rong Kla villages in Phitsanulok province to transform the youth's way of life and creatively drive the local economy. **Mr. Butrpoth Pholpipattanapong**, Managing Director of Hmong Cyber Social Enterprise Co., Ltd., shared during the panel discussion "Sustainable Tourism for Sustainable Development" that these communities boast beautiful





natural resources, rich culture, and a unique Tai Hill Tribe heritage but face limited opportunities, particularly in basic education. Many young people leave for city jobs, prompting Mr. Butrpoth to engage with the youth and uncover their interest in learning skills like cooking, video editing, and performing arts. He invited friends to teach these skills using online content and established the Hmong Cyber group, which has boosted the local economy through tourism and events. "The best way to learn is through hands-on experience," he said. "Youth gained practical knowledge by organizing community events and welcoming tourists to experience local life. Acting as tour guides, photographers, and coordinators, they earned income, developed professional skills, and cultivated a deep commitment to their hometown's development."

Sustainable community development can start by maximizing the use of available resources. Ban Koh Jik in Chanthaburi province, often referred to as the "Maldives of Thailand," is an excellent example of a community that embraces sustainable energy. Mr. Narongchai Hemsuwan, President of the Koh Jik Community Tourism Group, shared that in the past, Koh Jik Island had no access to electricity, and residents relied on oil lamps or diesel-powered generators, which produced air and noise pollutions. In 2004, with support from the government, solar panels with a capacity of 7.5 kilowatts were installed. From this initial step, the community collaboratively expanded solar installations, making solar energy the primary power source for the entire island. The establishment of Koh Jik Energy Service Company oversees the management of the electrical system, ensuring proper maintenance and a systematic approach to electricity utilization. Today, the use of diesel-powered vehicles is prohibited on the island, with bicycle use encouraged to reduce pollution. Additionally, over 40 fishing boats have been fitted with solar panels to minimize carbon dioxide emissions.

These community-driven efforts have earned Koh Jik international recognitions. By harnessing solar energy, the community has ensured sustainability while inspiring others to embrace self-reliance and sustainable living in harmony with nature.

Green economy is not just about sustainable growth but it is a collaborative journey that involves all sectors working together. Balancing economic progress with environmental responsibility, communities embracing innovative resource use, and creating opportunities for youth to develop their skills in their hometowns-these efforts play a crucial role in reshaping perspectives on development at both local and global levels. By intertwining sustainable economics with the preservation of local resources and culture, the next step is to build cities that are not only sustainable but also inclusive, offering equal opportunities for everyone. Read on to discover diverse insights that will contribute to the fostering of "livable cities and inclusive societies for all."

## LIVABLE CITIES AND INCLUSIVE SOCIETY FOSTERING INCLUSIVE COMMUNITIES FOR EQUALITY AND HAPPINESS

Differences and diversity enrich our world, with voices from all walks of life driving cities toward greater inclusivity, where everyone has a role and no one is left behind. At SUSTAINABILITY EXPO 2024, many panel discussions addressed the rights and opportunities of individuals with unique differences-such as physical abilities, gender identities, or income levels-while exploring innovative ways to develop urban communities and ensure equitable access to education.

A thought-provoking topic at the event was "A Society of Opportunities and Equality: Reduce Inequalities," which underscored the importance of living harmoniously and sustainably. Mr. Manit Inpim, an educator and keunote speaker, highlighted the challenges faced by individuals with physical limitations, stating, "Our society is a vibrant tapestry of diversity-spanning body types, heights, and ages. As people move through life, their needs evolve. Each day, when we stand at a crossroads and look around, we notice unequal structures such as uneven sidewalks or overpasses that are inaccessible to those with physical challenges. These disparities in urban spaces, transportation, buildings, and education limit opportunities for people with disabilities in Thailand." He stressed the need for universal design to ensure inclusivity for all. Mr. Sopon **Tubklong,** an actor and advocate for the visually impaired, emphasized that addressing inequality begins with education. By fostering understanding, society can move beyond viewing people with disabilities as needing assistance to recognizing their right to access services and participate equally. This mindset will drive the development of accessible infrastructure and equal opportunities for all. Mr. Surachet Chaiuppala, Deputy Dean for Corporate Strategic Communication and Special Affairs at the Faculty of Architecture Art and Design, King Mongkut's Institute of Technology Ladkrabang, highlighted the institute's commitment to equality and diversity, particularly for students with physical limitations. The institute has adapted its spaces with ramps and wheelchair-accessible restrooms to support their daily lives.





The discussion on designing urban spaces that prioritize well-being and accessibility for people of all genders and ages took place at a session titled "City that Cares." Mr. Adisak Guntamueanglee, Assistant Director of the Urban Design and Development Center (UDDC-CEUS) at Chulalongkorn University's Faculty of Architecture, stressed the importance of walkable and inclusive cities. He noted that integrating accessible design into both major and secondary cities fosters safe, convenient travel for all groups, enabling easy access to local businesses and markets, which in turn drives economic growth.

In the session titled "City Caring Designs," **Asst. Prof. Dr. Antika Sawadsri,** Dean of the School of Architecture,
Art, and Design at King Mongkut's Institute of
Technology Ladkrabang, highlighted Japan's
comprehensive approach to public space design. This
involves genuine community engagement, such as
workshops focused on public space design and trial use
by visually impaired individuals. In contrast, Thailand



faces challenges in defining and maintaining public spaces, as many areas are often repurposed for alternative uses, such as parking lots or markets.

Additionally, Asst. Prof. Panitat Ratanawichit, Head of the Training and Research Division at We!Park, emphasized that public green spaces not only address environmental concerns but also contribute to making cities more livable. We!Park serves as a platform that connects government, private sectors, and communities to collaboratively develop green spaces that truly meet community needs. Asst. Prof. Panitat further highlighted, "Public green spaces enhance well-being and serve as invaluable learning areas for the city. As collaborators, we identify areas with potential, whether neglected spaces within communities or sites where government and private sectors see opportunities to transform them into learning hubs. Our approach emphasizes active community involvement to ensure these spaces effectively address community needs."





Another noteworthy session on urban development was at "room x Living ASEAN Design Talk 2024 - (Re) Thinking Inside the Box: Vol. 2 Better Design, Better Community from an ASEAN Perspective." This session featured discussions among designers from Thailand, Vietnam, and Malaysia. Mr. Ng Sek San from Seksan Design Landscape Architecture and Planning in Malaysia is widely recognized as a designer who helps develop and revitalize urban areas and communities. A significant project he contributed to is Kebun-Kebun Bangsar, a community garden in the heart of the city that transforms vacant lots into green spaces accessible to all. Within the space, various activities, seminars, and workshops are held to raise awareness about agriculture, ecosystems, and cultural activities. He also discussed the development of a children's home in Mae Hong Son province, Thailand, where the emphasis was on blending with nature and embracing simplicity highlighting the idea that perfection is not always necessary. Most importantly, children were able to use every part of the building with happiness and ease. Meanwhile, Ms. Yuri Frassi and Ms. Afra Rebuscini from Officine Găp in Vietnam expressed their interest in urban living spaces like "Tube House," narrow alleyways, and vertical living elements that reflect community lifestyles. Inspired by this, both were supported by five design firms in Vietnam to transform tight spaces into contemporary designs that balance personal privacy with community interaction, transcending the limitations of the tight space.

An essential component of infrastructure development is transportation. Over the past few years, the concept of Connected Mobility has become increasingly important in connecting cities and communities. For instance, car sharing services have helped reduce costs, minimize environmental impact, and make



travel more accessible for everyone. During the discussion "Sustainable Mobility for the Future of Life," Mr. Krit Vichaiwatanapanich, Co-founder and CEO of Haupcar Co., Ltd., shared that Hop Car was established to provide car sharing services by aggregating vehicles already on the road and offering rentals through a mobile app on a per-minute or per-hour basis. Users can unlock vehicles directly using their smartphones, enabling individuals with vehicles to generate additional income, or allowing large corporations with extensive fleets to adopt Corporate Car Sharing models, thereby enhancing vehicle efficiency without increasing the number of cars on the road. Mr. Krit further explained, "We launched our first service at Thammasat University, located further from the city. Students often requested their parents to buy cars for convenience. However, with our service, they can simply rent a car when necessary, such as for offcampus trips with a larger group of friends." He emphasized, "The development of Connected Mobility is crucial, but operators cannot achieve this alone. We require collaboration and support from society and communities to ensure sustainable growth. Instead of adding more vehicles to the rental system, we focus on building a Sharing Economy where community members collaboratively share resources. This approach enables individuals to earn income while fostering collective growth and mutual prosperity.





The panel discussion "Pathways to a Sustainable Urban Future" examined urban development from the perspectives of city leaders and property developers. Dr. Chadchart Sittipunt, Governor of Bangkok, highlighted the need to balance large city growth with the development of Green and Smart Cities. He stressed that urban growth should include environmental sustainability, quality of life, and long-term resilience. Achieving this balance involves enhancing infrastructure on both macro and micro levels—improving transportation, drainage, waste management, and green spaces-while incorporating technology to boost efficiency, reduce environmental impact, and guide Bangkok toward becoming a smart city. Mr. Panote Sirivadhanabhakdi, Group Chief Executive Officer of Frasers Property Limited, discussed mixed-use development, integrating residential, office, retail, hotel, and public spaces. He emphasized prioritizing user needs, maximizing space, reducing management costs, diversifying risks, and creating a holistic environment for modern urban living, contributing to more dynamic, livable cities.

Creating inclusive communities that leave no one behind requires fostering opportunities for all genders

to achieve acceptance and contribute equally to societal progress. In recent years, efforts to promote understanding and acceptance of the LGBTQ+community in Thailand gained momentum, culminating in the passing of the marriage equality bill in 2024. This milestone marked a significant step toward equality and broader societal acceptance. At the panel discussion "(Gender) Diversity with Happiness," medical experts specializing in sexual





health offered valuable insights on topics such as sexual health, gender reassignment surgery, and the development of healthcare services for transgender individuals. Assoc. **Prof. Dr. Krasean Panyakhamlerd,** Head of Sexual Medicine at Chulalongkorn University, noted that leading medical faculties in Thailand had established clinics for sexual health consultations. Chulalongkorn Hospital launched the Gender Health Clinic in 2018, and over 30 BKK Pride Clinics were set up across Bangkok by the Bangkok Metropolitan Administration. These initiatives have positioned Thailand as a regional hub for healthcare services supporting diverse gender identities.



In discussing social equality, education was identified as a key factor in providing greater opportunities, especially in remote areas. Augmented Reality (AR) and Virtual Reality (VR) technologies, which naturally engage children, were used as educational tools in these areas. The "BiodiVRestorer Immersive VR Experience for Biodiversity Restoration," led by **Dr. Panyavut Aumpuchin** and the National Science and Technology Development Agency (NSTDA) research team, demonstrated how AR and VR could teach the principles of the "Framework Species" method—an approach to ecosystem restoration that focuses on planting key tree species.



The first activity, "Forest Exploration," had participants assess ecological potential for reforestation using smartphones to scan maps. In the second activity, "Reforestation Planning," they examined how to select suitable tree species based on their traits. In the final activity, "Protecting Biodiversity," participants used VR glasses to explore forests and collect seasonal fruits for planting in nurseries. These activities are part of the SIMPLE project, led by Institut de Recherche pour le Développement (IRD) from France, in collaboration with ASEAN agencies. The project focuses on hands-on learning and fostering environmental conservation awareness among young people. The technologies have been implemented to teach youths aged 12–18 in Vietnam, Thailand, Laos, and Cambodia.

Creating inclusive and equitable communities is essential for building a sustainable society. However, true progress cannot be achieved without prioritizing the well-being of both physical and mental health. As such, supporting these aspects is vital for driving sustainable development. In the next topic, we will explore the importance of physical and mental health and its critical role in fostering a resilient and sustainable community.

# PHYSICAL AND MENTAL WELL-BEING A HOLISTIC APPROACH TO CARING FOR PHYSICAL HEALTH AND MENTAL WELL-BEING FOR ALL AGES

Caring for both physical and mental health goes beyond individual needs, as it reflects the overall sustainability of the community. In today's world, where environmental balance and quality of life are deeply interconnected, many panel discussions at SUSTAINABILITY EXPO 2024 examined diverse





perspectives and strategies to enhance the well-being of people of all ages, contributing to a sustainable future for society.

In the panel discussion "Sustainable Wellness: Caring for the Planet, Free from Disease," Dr. Tanupol **Virunhagarun,** CEO of BDMS Wellness Clinic, highlighted the strong connection between our well-being and the planet's health. As the Earth suffers, so do we, making sustainable health crucial for long-term sustainability. Rising global temperatures worsen health issues like heatstroke and dengue fever. Non-communicable diseases are also on the rise, with over 380,400 Thai deaths annually, many linked to lifestyle choices such as poor diet, alcohol consumption, smoking, lack of exercise, stress, inadequate sleep, and air pollution. Dr. Tanupol emphasized sustainable health practices that benefit both individuals and the planet, such as choosing locally sourced vegetables to reduce transportation emissions, walking or cycling instead of driving, and engaging in nature-restoring activities like tree planting and waste collection. These actions promote personal health while contributing to a more sustainable world.

Food plays a crucial role in sustaining life, influencing both health and emotions. While Thailand is known as the "Kitchen of the World," many regions still face nutrition and food shortage challenges. In the panel discussion "Food Security in Southern Thailand," **Asst. Prof. Dr. Pongthep Sutheravut,** Vice President for Administration and Strategy at Prince of Songkla University, provided insights on this issue. He explained that despite the region's abundance of natural resources, much of the land is used for cash crops like rubber and palm oil, leaving only about 10% for food production. As a result, the region depends heavily on food imports.



Additionally, fishermen must supply both domestic and international markets, limiting local consumption. These conditions reduce food diversity and hinder self-sufficiency. To address these challenges, Prince of Songkla University, in collaboration with the Office of Health Promotion Funds and partners, established the Advance Institute for Food Security at the university's Thung Sai field. The initiative applies the BCG Economy Model, focusing on personal development, research, and improving plant and animal breeds. Farmers are encouraged to adopt modern agricultural technologies, and the project also integrates tourism and alternative energy use to enhance food security from upstream to downstream.

Because health requires continuous care throughout life, the seminar "Planning for Healthy Aging with the Screenwriter of the Movie Larn Mah" focused on understanding different generations' perspectives and effective communication with older individuals for sustainable healthcare. Mr. Thodsapon Thiptinnakorn. the screenwriter of "How to Make Millions Before Grandma Dies" (Larn Mah), shared that the story was inspired by his personal experiences, reflecting the final moments spent with his grandmother and how different generations view health and aging. He explained, "In a Chinese family like ours, we rarely express emotions. Grandma had stomach pain for years but never shared it. She bought traditional medicine herself to avoid being a burden. I realized that being a family goes beyond sharing moments of happiness or sorrow. Only through open communication can we truly address the challenges. Caring for the elderly is a collective effort.

Caregivers, families, and patients should engage in honest conversations. A living will is valuable, allowing us to honor their wishes, not just impose our own. It is about taking proactive steps together.

Another crucial aspect of achieving complete well-being is maintaining good mental health, as a stable mind serves as the foundation for a meaningful life. In a fast-paced society where stress and mental health challenges are common, the panel discussion "Opening Doors to a New Life with Strong Physical and Mental Health" explored new perspectives on mental wellbeing. This initiative aims to support individuals and communities in achieving sustainable well-being. Mr. Amornthep Sachamuneewongse, founder and CEO of the Sati App, noted that Thai society often lacks good listeners. To address this, he developed the Sati App to provide a safe space for those seeking understanding and support. "Listening means opening the mind and heart to receive information without needing answers or sympathy. Those struggling with mental health appreciate being heard as they share their thoughts and emotions in a safe space-a place where they can freely express themselves.





As we approach the later stages of life, we can prepare to live well and pass away peacefully, leaving no burdens. In the workshop "DEATH CLEANING: Final Notes for Planning and Managing Life," Ms. Chuenkamol Obeye, Head of the 10DK Home Tidying Department, explained that organizing belongings before saying goodbye helps let go of physical and emotional burdens. Items can be categorized into four groups: donate, pass on, discard, or dispose. Ms. Khaisri Wisutthipinetr from Cheevamitr Social Enterprise emphasized creating a Living & Leaving Note to document personal stories and key information, ensuring effective communication with loved ones about end-of-life care, financial matters, and family arrangements.

There are still many dimensions of mental health care and treatment that we want to explore, particularly the use of art therapy to analyze symptoms of depression





or to develop social skills. In the next section, we invite you to reflect on sustainability through the perspectives of art—utilizing photography and storytelling to raise awareness of the environment, or creating simple artistic works that deepen your understanding of both yourself and the world around you.

## ART FOR SUSTAINABILITY IGNITING INSPIRATION AND ACTION FOR SUSTAINABILITY

In a world filled with environmental, social, and economic challenges, people continually sought meaningful ways to spark change and pave the way for a brighter future. Among the most impactful tools for driving this

transformation was art. Whether you were an artist bringing creations to life or an admirer appreciating them, everyone contributed to igniting inspiration and fostering sustainable change through the transformative power of creativity.

Photography and storytelling bridge the gap between science and art, connecting us with the realities of our changing world. They bring us face-to-face with nature's transformations and the struggles of those affected. During the talk "Immersive Storytelling for Impact Experience," National Geographic explorers shared their journeys documenting the effects of climate change, with rivers as central themes. Mr. Martin **Edström**, photographer and storyteller, discussed his documentary "Ways We Are Following the Water," explaining his aim to convey urgent planetary changes. He noted, "I strive to go beyond traditional photography. The more effectively we communicate, the more we inspire people to get involved. For instance, VR technology showcased the vastness of giant caves, leaving audiences in awe and sparking curiosity to explore and protect these places." Mr. Edström also highlighted the documentary film "Plastic on the



Ganges," which used VR to show the devastating impact of plastic pollution. He emphasized, "When people witness the scale of the problem firsthand, as in the case of the Ganges, it raises awareness and compels them to take action."

















Art is more than a tool for raising awareness and sparking inspiration—it is a call to action, encouraging individuals to engage directly in the creative process. By transforming sustainability from an abstract idea into tangible practices and a lived experience, art empowers people to make a meaningful impact. Workshops like those led by Ms. Wishulada Panthanuvong, an artist from the Bangkok Art Biennale, inspired participants to turn them into extraordinary works of art. With just an idea, two hands, and a few materials, anyone can create something beautiful while reducing waste. Similarly, Thai illustrator, Ms. Pattida Prasanthong has discovered jou in repurposing scrap paper, transforming what might otherwise be discarded into practical and artistic items, such as one-of-a-kind floral stickers. Her work highlights how seeing beauty in overlooked materials can spark countless creative possibilities. Natural materials continue to play a vital role in art, showcasing resourcefulness and sustainability. The ECO PRINT

workshop by Meechai Pattana School used leaves and flowers to create natural dues for fabric, turning them into income-generating products while teaching these skills to the local community. Meanwhile, instructors from the Kram Savalee Group in Sakon Nakhon **province** demonstrated the cold-dueing techniques with natural indigo, a craft passed down through generations. This practice not only preserves cultural heritage but also solidifies Sakon Nakhon's status as a hub for indigo production. Printmaking adds another layer of creativity to these efforts. The ORGANIC PRINT workshop by Professor Emeritus Yanawit Kunchaethong guided participants in using natural pigments from plants to create prints instead of relying on chemical dyes. Each plant offers unique textures and colors, revealing the wonders of nature in every piece. This method celebrates the environment's beauty while promoting health and eco-friendliness, reinforcing the importance of preserving nature and reducing carbon emissions for a more

workshop by Silpakorn University's Department of Graphic Arts, meanwhile, used watermelon peel paper and natural watercolors for creative printmaking. Beyond visual arts, the Write Your Inner Journey workshop by independent writer Mr. Anusorn Tipayanon introduced storytelling as a tool for enhancing communication skills and cognitive development. Participants practiced free-form writing, detailed descriptions, and impromptu expression through haiku poetry.

During the talk "Art Therapy for Wellbeing," **Professor Dr. Bussakorn Binson,** Dean of the Faculty of Fine and Applied Arts and the Director of the FAA-Emili Sagol Creative Arts Research and Innovation Center for Well-being at Thailand's Chulalongkorn University, revealed that individuals struggling with depression and suicidal thoughts may live in the same household without anyone noticing. To address this, the university launched the CU MOBILE ARTS 4 U project, offering mobile art workshops across campus to screen for depression and raise awareness. Last year, over 600 students and staff were identified as experiencing depression, with many having considered suicide. Art provides a therapeutic outlet through activities such as drawing, sculpting, singing, and music. It can heal emotional wounds, aid physical rehabilitation, and help the elderly regain social skills. Most importantly,

it instills a sense of worth by showing that one's hands can create beauty. Professor Dr. Bussakorn emphasized, "Humans are fragile. Parents, despite appearing quiet and reserved, may feel lonely and hopeless inside. I encourage everyone to find ways to communicate and understand one another. We also offer art programs for families to foster greater understanding within the home." Dr. Nisara Jaroenkajornkij, a board member and secretary of the program, added, "The true beauty of art therapy lies not in its aesthetics, but in what it reveals from the subconscious. Everyone can engage in therapeutic art activities, even those who may not feel they have any issues. Art therapy is a powerful tool for healing and growth, nurturing our inner strength and allowing us to bloom from within, like a tree reaching its fullest potential."

The discussions at the SUSTAINABILITY EXPO 2024 showcased a powerful array of interconnected ideas on sustainability. Topics ranged from adapting to climate change and fostering an inclusive society to prioritizing both physical and mental well-being, as well as using art to raise environmental and social awareness. Each insight and example shared served as a crucial catalyst for meaningful, lasting change. We hope these conversations inspire people to act, work together, and drive the transformative changes necessary for a more balanced and sustainable future.









#### **SX SHAPER AWARD 2024**

The SX SHAPER AWARD recognizes individuals and organizations contributing to sustainable development. This year's recipient is the Mae Fah Luang Foundation under Royal Patronage, which continues the vision of Her Royal Highness Princess Srinagarindra to "Helping People to Help Themselves." The foundation focuses on empowering individuals through human-centric development and sustainable growth, particularly through the Doi Tung Development Project. Over the past 36 years, it has improved livelihoods for over 10,000 people. Additionally, it manages a forest carbon credit program benefiting 129 communities across 9 provinces (covering 194,850 rai), generating 500,000 tons of carbon dioxide equivalent in carbon credit and supporting 25,082 households. The foundation also promotes waste management in 24 villages.

## SEP SIGNING CEREMONY ADVANCING THE SUFFICIENCY ECONOMY FOR BALANCE AND SUSTAINABILITY

Charoen Pokphand Group (CP), represented by CEO, Mr. Suphachai Chearavanont, Thai Beverage Public Company Limited (ThaiBev), represented by Group CEO, Mr. Thapana Sirivadhanabhakdi, and SCG, represented by President and CEO, Mr. Thammasak Sethaudom, signed a memorandum of understanding to commit to "Advancing the Sufficiency Economy for Balance and Sustainability." This milestone event marks a collaboration to promote, expand, and integrate the Sufficiency Economy Philosophy as a sustainable development approach at the national level and elevate its impact on the global arena through the United Nations.







### SX2024 HACKATHON x CIRCULAR INNOVATION CHALLENGE

The hackathon sought outstanding young ASEAN innovators capable of applying their expertise to develop groundbreaking solutions for climate and environmental challenges. The SX2024 HACKATHON x Circular Innovation Challenge 2024 revolved around the theme "INNOVATION FOR CLIMATE ADAPTATION" and attracted 161 teams from 10 ASEAN countries. The winning team this year was Team E-Hole from Malaysia, which presented a "Drainage Monitoring and Tracking System for Efficient Water Management." This innovative solution addresses urban flooding by providing real-time monitoring and data collection of drainage conditions. The collected data is analyzed to anticipate potential problems, enabling proactive and efficient solutions to prevent and mitigate future challenges.

### SX PARTNERSHIP FOR THE GOALS TSCN BUSINESS PARTNER CONFERENCE

The TSCN Business Partner Conference, a cornerstone event of the Thailand Supply Chain Network (TSCN), brought together prominent organizational leaders to commit to advancing sustainability in all dimensions. The conference featured the keynote address, "Vision

2030: Driving Collaboration for a Sustainable Future," presented by senior executives from Charoen Pokphand Group, SCG, Thai Beverage Public Company Limited, and Thai Union Group Public Company Limited. These leaders shared their strategies for integrating sustainability into business practices amid an increasingly complex global landscape. The event also featured the signing of the TSCN Business Partner Code of Conduct, establishing a collective commitment to shared values and principles, and providing a framework for aligning operations with sustainability goals.

#### **SX YOUTH SPEECH CONTEST 2024**

A platform for the voices of the younger generation, the "SX Youth Speech Contest 2024" was held under the theme "Surviving in Global Boiling." The contest attracted 128 participants for the Thai language category and 127 for the English language category. The winner of the Thai category was Mr. Siravitch Boonprasitthikarn, a graduate of the Faculty of Communication Arts, Chulalongkorn University. In the English category, the title went to Mr. Janak Ashok Teckwani, a master's degree student from the Faculty of Social Sciences, Taylor's University, Malaysia.







#### **SOCIAL ENTERPRISE FORUM 2024**

The SOCIAL ENTERPRISE FORUM 2024, organized by C asean under the leadership of Ms. Tongjai Thanachanan, Managing Director of C asean, aimed to promote sustainable social enterprises. The event featured Mr. Mechai Viravaidua, the founder of Mechai Pattana School, who shared insights on the power of the younger generations and education's role in fostering sustainable change. M.L. Dispanadda Diskul, Chief Executive Officer of the Mae Fah Luang Foundation under Royal Patronage and President of the Social Enterprise Thailand Association, also delivered an inspiring talk on social enterprises as key future drivers. The forum included a panel discussion, "Growth for Good: Expanding Sustainable Social Enterprises," with speakers from Joy Ride Thailand, Local Alike, and Sandbox Air. Another highlight was "SE Enablers: Driving Social Business," featuring organizations supporting social enterprises, such as SE Thailand, ChangeFusion, and Taejai.com. A key moment was the signing of a memorandum of understanding between Casean, Thai Beverage Public Company Limited, the Foundation for the Institute of Social Enterprise Development Thailand, Thaksin University, and Rajabhat Rampaipannee University to enhance students' social entrepreneurship skills and build sustainable communities.









### WIN WIN WAR THAILAND SEASON 6 AWARDS CEREMONY

Win Win WAR Thailand Season 6 was a game show broadcast on Amarin TV Channel 34, designed to find Thailand's top social entrepreneurs, operating businesses that balance profitability with social and environmental sustainability. The awards ceremony was a key part of the SOCIAL ENTERPRISE FORUM 2024. Mr. Thapana Sirivadhanabhakdi, Group Chief Executive Officer of Thai Beverage Public Company Limited, chaired the awards presentation, congratulating the top five finalist teams. The grand prize for "Outstanding Social Entrepreneur" went to Team JAIKLA, led by Mr. Ittikorn Thepmani, for their innovative pet treats made from eco-friendly, healthy protein alternatives. The team received a cash prize of 2,000,000 baht and mentorship from industry experts to support their growth. Four other finalist teams were also recognized:

- HILLKOFF, led by Ms. Naruemon Taksaudom, developed coffee and community-based products to elevate them to novel food with added health benefits and to improve the quality of life for highland farmers.
- RECYCOEX, founded by Mr. Sompop Majisuwala, created a comprehensive system for managing and recycling plastic packaging.
- Loco Pack, led by Ms. Nichaya Anantawong, produced sustainable packaging solutions for SMEs.
- GERM Guard, developed by Dr. Pitt Supaphol, developed wound dressings using mangosteen extract.



Each of these teams received a special prize of 100,000 baht, along with expert guidance to further develop their businesses. The awards celebrated emerging social entrepreneurs and emphasized the importance of businesses that balance profitability with sustainable social and environmental impact.

### THAILAND CLIMATE ACTION CONFERENCE TCAC 2024

The third edition of the Thailand Climate Action Conference (TCAC) 2024 took place under the theme "Accelerating the Climate Transition." Dr. Chalermchai Sri-on, Minister of Natural Resources and Environment, presided over the opening and highlighted the importance of transitioning towards a low-carbon economy and society. He emphasized the need for integrated efforts across various sectors, including education, technological advancement, and infrastructure development, to support this transition. Additionally, it is essential to enhance the knowledge and capabilities of stakeholders, incorporate new technologies and innovations that address climate challenges, and promote finance and investment activities that foster sustainable and resilient transitions.





## ANNUAL MEETING OF GRASSROOT ECONOMIC DEVELOPMENT WORKING COMMITTEE

The Grassroots Economic Development Committee has been driving local community and Thai society development for nine years through agriculture. processing, and community tourism. The primary goal is to generate income for communities and enhance well-being. The annual meeting serves as a platform to share insights, strategies, and foster collaboration with 76 provincial Pracharath Rak Samakkee social enterprises and Pracharath Rak Samakkee (Thailand) Co., Ltd. Mr. Thapana Sirivadhanabhakdi, head of the committee's private sector representatives, shared policies and encouraged practitioners. The seminar also welcomed Mr. Mechai Viravaidya, Chairman of Pracharath Rak Samakkee (Thailand) Co., Ltd., Mr. Apichart Todilokvej, former senator and Advisory Chairman of Social Enterprise Development Institute Foundation of Thailand, and Mr. Warong Sangmuang, Deputy Director-General of the Community Development Department.

### PACKBACK IN ACTION YEAR 3 THE DRIVE FOR EPR IN THAILAND

The Federation of Thai Industries (FTI) hosted PackBack in Action Year 3: The Drive for EPR in Thailand, focusing on efficient and sustainable resource use while encouraging proactive involvement from large enterprises and SMEs. As global regulations affect exports, Thai businesses must prepare for compliance. Moreover, the Sustainable Packaging Management Act will soon be enforced, requiring all companies to participate. The Thailand Institute of Packaging and Recycling Management for the Sustainable Environment (TIPMSE), under FTI, is working with public and private sector networks to ensure readiness for the mandatory implementation expected in 2027.





## EST COLA ATTRACTS GEN Z WITH CAMPAIGN"CHANGE BOTTLES FOR A BETTER WORLD"

est Cola reaffirms its commitment to sustainability with the campaign "est Cola: Change Bottles for a Better World - Young Gen Caring for the Planet with New Bottles" at SUSTAINABILITY EXPO 2024. The initiative replaces est Cola's 515 ml bottles with those made from 100% recycled plastic. A panel discussion, "Transforming est Cola Packaging: rPET Bottles est Cola Encouraging Young Gen to Build a Sustainable Future with New Bottles," featured Ms. Suporn Denpaisarn, Vice President - Office of Marketing, NAB Thailand, Dr. Napat Punpongjareorn, Sustainable Development Manager of Thai Beverage, Jeff Satur, est Cola's Brand Presenter, and Mr. Zcongklod Bangyikhan, Editor-in-Chief and the founder of The Cloud online magazine. The event concluded with a mini concert by Jeff Satur, attracting over a thousand fans united for a sustainable future with the new bottles.

### CHARITY CONCERTS F OR FLOOD-AFFECTED SCHOOLS

The Power of Thai Foundation, in collaboration with SUSTAINABILITY EXPO 2024 and its partners. organized two charity concerts to raise funds for the restoration of schools affected by flooding. The first concert, "Power of Thai: Returning Smiles to Flood-Devastated Schools," took place on 28 September 2024, featuring performances by volunteer artists from GMM Grammy Public Company Limited, CHANGE2561, SPICYDISC, Warner Music Thailand, and the Kao Kon La Kao Foundation. On 5 October 2024, the "HEALING MELODIES CHARITY CONCERT" featured renowned pianist Nat Yontararak, the Suanplu Chorus, the Thailand Philharmonic Orchestra, Bird - Ekachai Jearakul, Vietrio, Tul -Tulanan Narasetapisarn, and Princess Galyani Vadhana Institute of Music. All proceeds supported the rehabilitation of schools impacted by the floods.





## ESG SYMPOSIUM 2024 DRIVING INCLUSIVE GREEN TRANSITION

The ESG SYMPOSIUM 2024 brought together global experts who shared diverse experiences and models for transitioning to a low-carbon society. The event also featured an exhibition on low-carbon lifestyles. Mr. Prasert Chantararuangthong, Deputy Prime Minister of Thailand and Minister of Digital Economy and Society, discussed "Enhancing Thailand's Potential for a Collective Transition to a Low-Carbon Society." Key symposium discussions led to two main recommendations for the government: transitioning to clean energy and promoting a circular economy, as well as using "Saraburi Sandbox," Thailand's first low-carbon city model, to address challenges in policy, industrial development, green infrastructure and ensure a society that leaves no one behind. Four strategies were proposed to support these efforts: easing laws and regulations, promoting access to green finance, developing green technologies and infrastructures, and empowering SMEs.

#### **SX SHAPER POINT**

At SUSTAINABILITY EXPO 2024, participants collected points via the SX mobile app by scanning QR codes at designated locations, engaging in activities at booths, or attending panel discussions. Points were then exchanged for SX2024 souvenirs collection made with sustainability in mind, including rPET bags, nylon bags, premium cotton bags, and recyclable notebooks, coasters, and aluminium cans-all of which can be recycled indefinitely.



### CPF SUSTAINABILITY IN ACTION AWARD 2024

The 9<sup>th</sup> CPF Sustainability in Action Award recognized innovative projects tackling social, community, and environmental challenges. The competition saw 61 submissions from Charoen Pokphand Foods Public Company Limited employees in Thailand and abroad. After a thorough selection process, the winning project, Waste No More focuses on sustainable waste management across the pork business, following the Waste to Value principle. It transforms waste into valuable resources, including "good ash, good water, good gas, and beneficial sludge," reducing energy consumption. The initiative helps lower household expenses and boosts income for farmers and communities.





## CHIEF SUSTAINABILITY OFFICERS FORUM (CSO)

The Chief Sustainability Officers Forum was held under the theme "Climate Change Mitigation and Adaptation," focusing on challenges and strategies for addressing climate change. The event brought together leaders from major organizations to raise awareness of climate change impacts and explore adaptive solutions to remain competitive in the market. Participants included international institutions such as the International Finance Corporation (IFC), MUFG Bank, and Kasikornbank, along with global sustainability advisors ERM, the leading credit rating agency S&P Global, the Malaysian investment holding company Capital A specializing in tourism and lifestyle, the sustainable chemical company Indorama Ventures, and Thai Beverage Public Company Limited, Southeast Asia's largest beverage company.

## ASEAN CIRCULAR ECONOMY FORUM 2024 (ACEF)

The ACEF served as an annual platform for ASEAN policymakers, bringing together representatives from government agencies, the ASEAN Secretariat (ASEC), and the ASEAN Economic Community (AEC) to collaborate on advancing effective policies for circular transitions. The forum fostered discussions on the widespread impacts of climate change, which hinder sustainable development, as well as the circular economy, ASEAN cooperation, and the broader involvement of government agencies. Key topics included "Circular Startups in ASEAN – Harnessing the Potential of Regional Integration and Cooperation," which explored Thailand's role in regional economic integration, innovative design strategies, and best practices for engaging industries and communities.



Another significant session, "Comprehensive Circularity for Electronics – Using the Full Range of Circular Strategies," focused on minimizing the environmental impact of electronic devices. It underscored the crucial role of governments in extending product lifespans, ensuring product safety, and promoting social responsibility within the electronics sector.

### AUSTRALIAN GREEN ECONOMY MISSION TO THAILAND

The Australian Embassy in Thailand joined the SUSTAINABILITY EXPO for the first time. Representatives from the Australian Green Economy Mission, spearheaded by Australian Trade and Investment Commission (Austrade), shared advanced practices in agricultural technology, smart cities, and green energy while identifying trade and investment opportunities and fostering business collaborations between Thailand and Australia. The event also featured a seminar titled "Australia's Pathway to Decarbonization in Agriculture," which underscored the vital connection between agricultural sustainability and trade. The discussion highlighted Australia's efforts in driving sustainable production, environmental conservation, climate action, and business.





## SWEDEN - THAILAND SUSTAINABLE DEVELOPMENT FORUM 2024

The Embassy of Sweden in Thailand, in partnership with Business Sweden and the Thai–Swedish Chamber of Commerce (SweCham), organized the "Sweden–Thailand Sustainable Development Forum 2024" at the SUSTAINABILITY EXPO 2024. The forum provided a dynamic platform for sharing insights, exchanging best practices, and strengthening tangible cooperation in sustainable development between Thailand and Sweden. The event featured two discussion panels on innovations to improve energy and resource efficiency, and the transition to green transportation, exploring both opportunities and challenges in advancing sustainable urban mobility.

### NIKKEI DIGITAL FORUM IN ASIA: SUSTAINABLESOCIETY&SOLUTIONSUMMIT

The NIKKEI DIGITAL FORUM IN ASIA: SUSTAINABLE SOCIETY & SOLUTION SUMMIT brought together leaders from the public and private sectors, as well as academia in Thailand and Japan to foster new collaborations. The event focused on advancing digital technologies to tackle pressing social challenges. Over 20 esteemed speakers shared valuable insights and engaged in meaningful discussions. A key takeaway emphasized the importance of combining Thailand's agricultural strengths with Japan's technological expertise to drive co-creation, positioning this collaborative approach as a pivotal strategy for fostering sustainable development and pioneering innovative solutions on a global scale.



### THE THAI-SWEDISH SUSTAINABLE WATER FORUM 2024

Thailand and Sweden's partnership in sustainable water management began in 2021, focusing on water resource management technology with key agencies, including the Ministry of Interior, the Federation of Thai Industries, the Metropolitan Waterworks Authority, and the Bangkok Metropolitan Administration. In 2022, the Thailand-Swedish Water Alliance was formed, strengthening long-term cooperation. Building on this, the "Thailand-Swedish Sustainable Water Forum 2024" was held at the SUSTAINABILITY EXPO 2024 by Business Sweden. The forum provided a platform for exchanging knowledge, sharing expertise, and exploring solutions to Thailand's water resource challenges. aiming to enhance water security and promote sustainable practices.



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