



**ICDI國際氣候發展智庫**  
International Climate Development Institute

# YEARBOOK



**2024 - 2025**

**ROAD TO A DECADE**

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# ROAD TO A DECADE

Reflecting on Ten Years of Progress-  
International Climate Development  
Institute (ICDI)



## Foreword

MR. CHIOU CHYI-RONG PRESIDENT OF ICDI

At this special moment, we celebrate our remarkable journey over the past decade with immense pride and gratitude. Ten years, for an organization, is not just a span of time but a period filled with challenges, growth, and achievements.

Looking back, we embarked on this journey fueled by our initial ideals and beliefs, navigating through countless storms and trials. Throughout these ten years, we have continuously learned, adapted, and innovated, steadfast in our mission to make a positive impact on society. Each milestone we have reached is a testament to the hard work and selfless dedication of every member. It is your efforts that have allowed us to keep moving forward on this path, ready to embrace new challenges.

This commemorative publication is not only a reflection of the past decade but also a vision for the future. Through these stories and memories, we hope to convey the essence of our shared journey, inspiring more individuals to join us in creating a brighter tomorrow.

We extend our heartfelt thanks to everyone who has supported us—team members, partners, and every reader. Let us cherish this journey together, look ahead, and continue to walk hand in hand along this road.



# ABOUT ICDI

## Our Mission

International Climate Development Institute is a non-profit organization that focuses on climate change, human rights, and intergenerational justice, and developmental rights and actively participates in international activities. The core belief of the organization is the concern for climate change and the right to human development.

Our climate action direction covers: Taiwan's climate policy and practice, Taiwan's climate action and international links, climate talent cultivation and climate education; and we are also committed to climate service industry promotion, climate finance and green economy transformation.

Through publications, policy research, technology innovation, and social engagement, we promote climate change issues in a variety of ways, with local base and an international perspective.



## Core values: Climate service

According to the definitions of the World Meteorological Organization (WMO) and the Global Framework for Climate Services (GFCs), Climate Service provides climate information to assist individuals and organizations in making a smart climate decision. Climate Service is regarded as a decision-making assistance as well. Under the trend of global warming, climate services will play an important role gradually.

The International Climate Development Institute is committed to developing climate services and assisting decision-makers to make appropriate climate decisions from the top to down; at the same time, the institute works with local governments, community colleges and other units to actively build climate resilience of communities to respond to climate change from the bottom to up.





## Enlightened on Sustainable Development Goals

In September 2015, when the United Nations held the United Nations Development Summit (Rio+20) at New York headquarters, member states unanimously adopted the "2030 Agenda for Sustainable Development. The 17 Sustainable Development Goals (SDGs) are expected to serve as a guide for sustainable development globally in the next 15 years.

## Make vigorous effort to implement SDG13 Climate Action

ICDI and its group of partners have committed to taking urgent action to combat climate change and its impacts. The core value of the organization centers on the 13th sustainable development goal, implementing the human right to development through climate action. Team members in ICDI have diverse backgrounds in industry, government, academia, and the private sector. Since its establishment, ICDI has actively participated in International Participation and Network Building, Climate Change Interdisciplinary Cooperation and Project Implementation and Talent Cultivation to improve Taiwan's visibility in the field of international climate change.

Our climate action focus covers: Taiwan's climate policy and practice, Taiwan's climate action and international links, climate talent cultivation and climate education. We are also committed to climate service industry promotion, climate finance, and green economy transformation.

Through publications, policy research, technology innovation, and social engagement, we use diverse approaches to climate change issues, combining our local emphasis with an international perspective.



# Milestone





# POLICY SOLUTIONS

Promoting institutional progress and development through policy research

## Local Energy Governance Rating Systems (LEGRS)

Given that urban cities are a hotspot for energy consumption and greenhouse gas emissions, and for the purpose of giving a response on the international sustainable development initiative, ICDI has worked with ICLEI, KCC, and ITRI to develop the Local Energy Governance Rating Systems (LEGRS), to establish a set of policy guidelines for local governments to promote energy transformation.

LEGRS's core missions are to promote industrial development, accelerate energy transformation, and build local energy governance capacity. The main purpose of the LEGRS is not to establish an independent international certification system but to be used as an important tool for local governments to connect with their international sustainable city initiative certifications, accelerate local governments' efforts to promote energy transformation, and implement the energy and climate goals of local governments.



PARTNERS



工業技術研究院  
Industrial Technology  
Research Institute



7 AFFORDABLE AND  
CLEAN ENERGY



11 SUSTAINABLE CITIES  
AND COMMUNITIES



Introducing inter-disciplinary adaptation solutions through research and innovative technologies

In response to the global net-zero trend and to mitigate the impacts of climate change, our team, in collaboration with partners, has jointly launched Taiwan's first integrated platform combining weather information and the building lifecycle— GreenBIM Micro-climate platform (<http://www.weatherservice.org.tw/>) since 2017. Through this platform, we have applied weather data to optimize air conditioning energy savings during the operation and maintenance phases in three pilot sites. The goal is to assist buildings in reducing unnecessary energy waste during the design and operational phases by leveraging local weather information.



GREEN BIM  
微氣候資訊平台



## 7 AFFORDABLE AND CLEAN ENERGY



## 11 SUSTAINABLE CITIES AND COMMUNITIES



# TECHNOLOGY SOLUTIONS

Introducing inter-disciplinary adaptation solutions through research and innovative technologies

## Achievements of the projects

### APPLICATION OF WEATHER INFORMATION FOR ENERGY-SAVING AC CONTROL IN OFFICE BUILDINGS

This project utilized local weather data to optimize the energy-saving scheduling of air conditioning systems (temperature settings) in office buildings. Over a four-month period, this scheduling saved 2,799 kWh of electricity, resulting in a reduction of 21,851 NTD in electricity costs and preventing approximately 1.405 tons of CO<sub>2</sub> emissions. The results of this weather-based energy-saving experiment were published in the SCI journal Building and Environment in August 2022. The article can be accessed at the following link:

<https://doi.org/10.1016/j.buildenv.2022.109280>



We participated in the 2024 Delta Electronics Foundation Climate Salon, where innovative energy-saving technologies and case studies were shared,



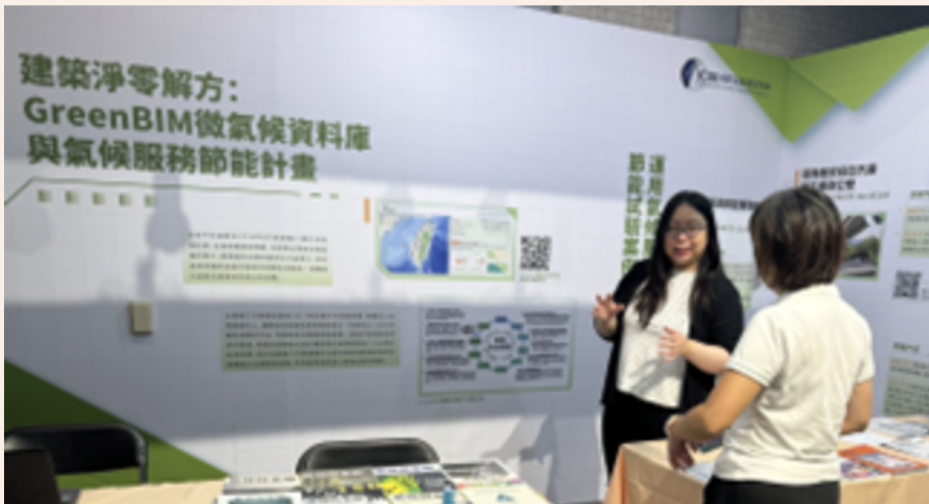
# TECHNOLOGY SOLUTIONS

Introducing inter-disciplinary adaptation solutions through research and innovative technologies

## Achievements of the projects

### APPLICATION OF WEATHER INFORMATION FOR ENERGY-SAVING AC CONTROL AT DELTA ELECTRONICS CHUNGLI PLANT 5

This project integrates local weather data into the scheduling of the plant's air conditioning systems, including the chilled water system, ice thermal storage, and economizer system. Over the course of one year, the energy-saving schedule resulted in a reduction of approximately 210,000 kWh in electricity usage, preventing the release of about 105 tons of CO2 emissions, with a total energy savings rate of 9.67%.



TAIWAN BETTER QR CODE



We attended the 2024 Taiwan Climate Action Expo (TWCAE)



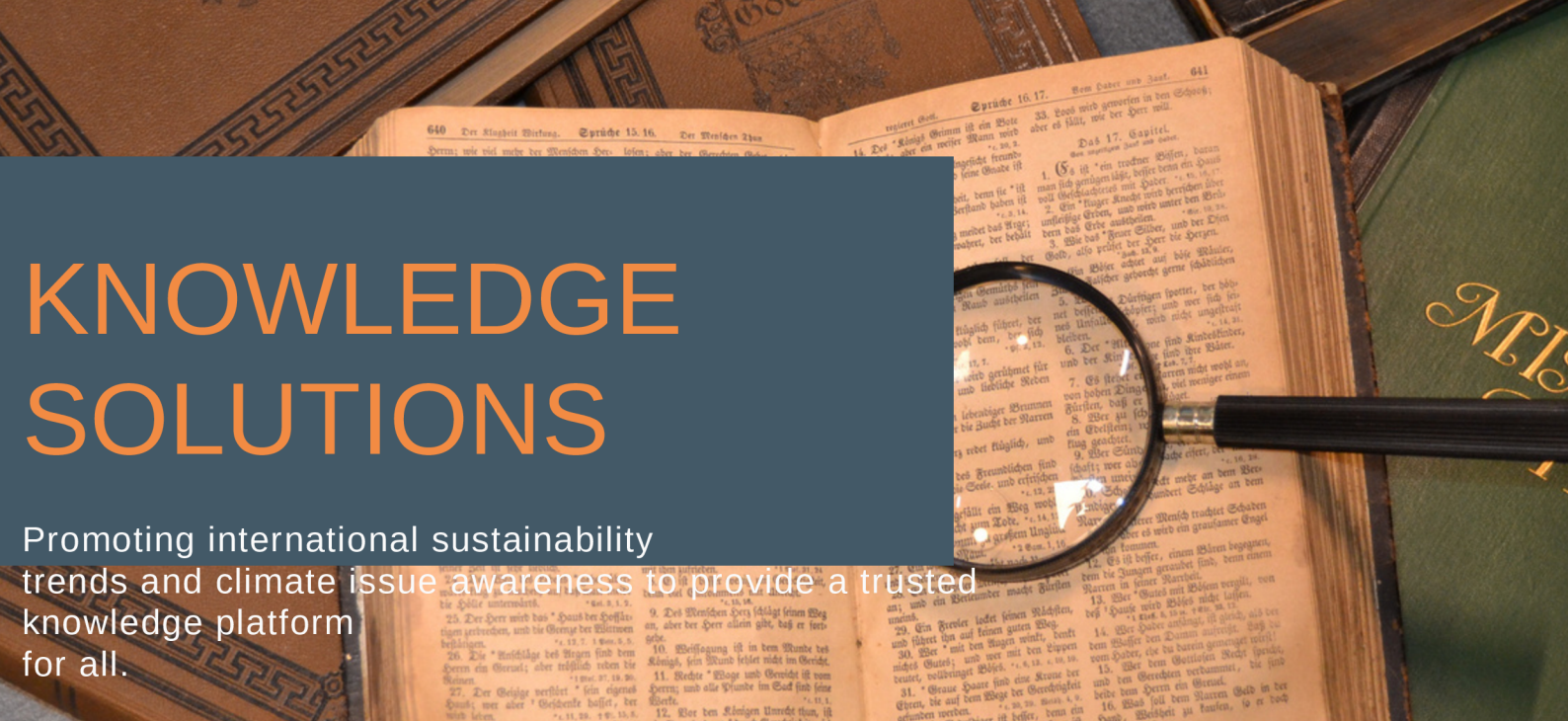
# TECHNOLOGY SOLUTIONS

Introducing inter-disciplinary adaptation solutions through research and innovative technologies

## Future Outlook

The GreenBIM Building Microclimate Information Platform integrates historical, real-time, and forecast weather data from across Taiwan, aiming to assist various types of buildings in achieving energy-saving applications throughout their lifecycle. In past practical cases, whether in office buildings, exhibition halls, or factories, the air conditioning systems have been precisely adjusted according to environmental changes, achieving nearly 10% energy savings and carbon reduction. Changing electricity usage behavior will be a crucial step towards achieving net-zero emissions in future buildings.





# KNOWLEDGE SOLUTIONS

Promoting international sustainability trends and climate issue awareness to provide a trusted knowledge platform for all.

## Climate Collaboration of Austronesian Partners and indigenous people

The Sixth Assessment Report (AR6) released by the Intergovernmental Panel on Climate Change (IPCC) in 2022 underscores the potential contributions of Indigenous and Local Knowledge (ILK) in addressing climate change. The report highlights that Indigenous knowledge can actively contribute to adaptation actions in areas such as water resource management, soil fertility, grazing systems, forest restoration, sustainable forestry, and ecosystem-based adaptation. In 2023, the United Nations Climate Change Conference (COP28) established the Global Goal on Adaptation (GGA), which aims to provide a standardized framework to guide adaptation actions across regions. At a high-level conceptual scope, the GGA emphasizes that adaptation frameworks should incorporate Indigenous worldviews and values alongside appropriate scientific and technological considerations.



Taiwan's Indigenous peoples are part of the Austronesian language family. The International Climate Development Institute (ICDI) focuses on fostering climate collaboration with diverse stakeholders at the local tribal level and actively expands climate dialogues with Austronesian partner nations. At the 4th Taiwan Climate Action Expo 2024, the ICDI, in collaboration with the Council of Indigenous Peoples, will host the "Austronesian Knowledge, Sustainable Development, and Climate Action Forum." The forum will center on "Climate Change Risk Adaptation and Indigenous Knowledge and Experience," exploring the challenges and impacts faced by Austronesian partners in the context of global climate change, while drawing on valuable lessons from their experiences. This discussion aims to examine Taiwan's role as part of the Austronesian family in addressing climate issues and advancing collaborative climate actions.



# KNOWLEDGE SOLUTIONS

Promoting international sustainability trends and climate issue awareness to provide a trusted knowledge platform for all.

## Climate Collaboration of Austronesian Partners and indigenous people

Distinguished guests will include members of Taiwan's Council of Indigenous Peoples, the Chargé d'Affaires of the Tuvalu Embassy in Taiwan, the Ambassador of the Palau Embassy in Taiwan, the Director of the New Zealand Trade Development Center, and renowned New Zealand climate conservation experts participating online. Through this forum, the ICDI aims to establish crucial channels of climate communication with ambassadors from Taiwan's diplomatic allies. In the face of global warming and the threats posed by climate change, the ICDI emphasizes unity with Austronesian partner nations to build bridges for dialogue, cooperation, and climate action. This approach aims to create mutual benefits and deepen international relationships.



17 PARTNERSHIPS FOR THE GOALS



# KNOWLEDGE SOLUTIONS

Promoting international sustainability trends and climate issue awareness to provide a trusted knowledge platform for all.

PARTNERS



國泰金控  
Cathay Financial Holdings

## The “Climate & Finance” bimonthly report

The “Climate & Finance” bimonthly report has been in circulation for over four years since its inaugural issue published at the end of 2020. The primary objective of this publication is to provide readers with the latest information and developments related to climate finance both domestically and internationally.



The journal features contributions from six scholars and experts in the field of climate finance. They have also participated in the review process.

Additionally, we have invited professionals and organizations from the climate finance sector to contribute articles on various topics. The editorial team curates and translates information from both domestic and international sources, producing a knowledge-rich bimonthly periodical that aims to make climate finance information accessible for the general public.

→ The “Climate & Finance” bimonthly report has now published 23 issues. We’ll be bringing you even more informative and engaging content in the future, so please stay tuned!








# KNOWLEDGE SOLUTIONS

Promoting international sustainability trends and climate issue awareness to provide a trusted knowledge platform for all.

## Publications and E-newsletter


The International Climate Development Institute (ICDI) publishes the "ICDI E-Newsletter," which is subscribed to by individuals and organizations from academic institutions, civic groups, and private enterprises.

Each week, the newsletter features a curated selection of 4 to 8 significant international climate news articles, keeping readers updated on global trends. With concise yet in-depth summaries, the newsletter offers a quick and comprehensive overview of critical climate developments. Subscribers can accurately capture key international climate progress, promoting the broad and effective dissemination of climate information and enhancing public and stakeholder awareness of climate change.



### ICDI NEWSLETTER

Providing the latest news, analysis and reports concerning climate issues worldwide, including climate crisis, climate finance, regulations, urban planning and renewable energy.



#### Global survey reveals 'truly astonishing' consensus for stronger climate action

全球民調揭開在加強氣候行動方面「真正令人驚訝」的共識  
2024.06.20 UN News

Peoples' Climate Vote 2024, the biggest ever standalone public opinion survey on climate change, also showed that 80 per cent of the respondents support more ambitious climate action.

The second edition of the survey polled communities around the world on how nations are tackling climate change that is triggering extreme weather, flooding, and temperature spikes across the planet, affecting countries large and small.

有史以來規模最大的氣候變遷獨立民調「2024年人民氣候投票」顯示，80%的受訪者支持採取更宏偉目標的氣候行動。

該調查的第二版對世界各地的社區進行了民意調查，了解各國如何應對氣候變遷，氣候變遷觸發了全球的極端天氣、洪水和氣溫飆升，影響了大大小小的國家。

Read More

# CITY SOLUTIONS

Promoting International Exchange and Sustainable Development Cooperation

## 2024 Sustainable City Forum

The theme of CITY COP focuses on how cities can leverage digital technology to accelerate the achievement of their goals, facilitate the exchange of international low-carbon development experiences, and promote strategies for sustainable living. Representatives from cities and industries in Kaohsiung, Dubai, Fiji, Eswatini, Kosovo, the Philippines, South Korea, the United Kingdom, Canada, and Slovakia are invited to share how they balance urban development with carbon reduction strategies, the development of smart grids, urban carbon neutrality planning, net-zero promotion strategies in daily life, and smart management of urban waste, all working together to create sustainable and resilient cities.



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION





## Promoting International Exchange and Sustainable Development Cooperation

ICDI cooperates with partners to publish its annual Global Smart Solution Report (GSSR). Every year, a brief version is presented at the Climate Change Conference, and an official report is published at the Smart City Forum and the Exhibition of the Sustainable City Forum.



In the following report, Chapters 1 through 4 highlight 17 smart city cases. Based on the nature of their climate adaptation approach, the cases have been split into City Solutions, Business Solutions, and Public-Private Partnerships Solutions. Despite the geographic proximity of the featured cities (most cities are in Asia), each faces unique development challenges and innovates in distinct ways to tackle climate targets.



# ACTION SOLUTIONS

Towards the Climate Action from All

## 2024 Taiwan Climate Action Expo

Since 2020, the Taiwan Climate Action Expo (TWCAE) has been a driving force in Taiwan's journey towards a sustainable future. Bringing together government agencies, private sectors, academic institutions, NGOs, and the public, TWCAE fosters climate action through exhibitions, forums, and workshops. TWCAE is committed to facilitating dialogues, encouraging collaborations across sectors, and empowering all stakeholders to actively participate in creating a resilient Taiwan.



In 2024, TWCAE reached new heights, solidifying its position as the premier platform for climate action in Taiwan.

-Unprecedented Collaboration: For the first time, TWCAE joined forces with eight counties and cities in central Taiwan, showcasing the power of regional collaboration in addressing climate change. This partnership led to the signing of the "Science-based Regional Climate Action Initiative" at the Net-Zero City Forum, demonstrating a shared commitment to evidence-based climate solutions.

13 CLIMATE  
ACTION



17 PARTNERSHIPS  
FOR THE GOALS





# ACTION SOLUTIONS

Towards the Climate Action from All

## 2024 Taiwan Climate Action Expo



-Record-breaking Participation: TWCAE 2024 attracted an impressive 50,000 attendees to the physical event, with online forums engaging over 1,715 participants. The Expo's Facebook page reached over 140,000 people, amplifying the message of climate action across Taiwan.

-Diverse and Engaging Programs: From the Climate Action Summit to the Youth Forum, TWCAE 2024 offered a wide range of programs catering to diverse interests. The Expo featured thought-provoking climate dialogues on topics such as Indigenous climate action, smart healthcare, sustainable oceans, and net-zero agriculture, fostering in-depth discussions and knowledge sharing.

-Empowering Youth Action: Recognizing the crucial role of young people in shaping a sustainable future, TWCAE 2024 hosted a dedicated Youth Forum and the Climate Change Creative Action Competition Award Ceremony. These initiatives provided a platform for youth voices and encouraged their active participation in climate solutions.

TWCAE aims to accelerate climate action through public engagement, cross-sectoral collaboration, and knowledge sharing, ultimately contributing to a sustainable and resilient Taiwan. With its continued growth and impact, TWCAE is poised to play an even greater role in driving climate action in the years to come.



# COMMUNITY SOLUTIONS

Building Community Resilience and Promoting a Just Transition

## Community-Based Adaptation in Taiwan

Since 2016 ICDI has cooperated with city governments, community colleges, and local communities to support capacity building, energy transformation, and the development of adaptation strategies. ICDI targets sustainability efforts towards helping vulnerable groups achieve climate resilience.

Developing local environmental resilience and strengthening vulnerable groups against climate risks is the first priority for global adaptation.

This project centers around community-based workshops connecting local residents with climate-vulnerable groups such as farmers, women, and the elderly.

ICDI leads seed teachers to discuss adaptation strategies with course participants and employs Participatory Capacity and Vulnerability Analysis (PCVA) as a tool for community strategizing.

ICDI's aims to empower minorities in climate governance, assess past resource allocation, and realign climate assets to maximize outcomes for marginalized groups.



The results of community-based adjustment work of Linquan Li, Beitou District, Taipei City

PARTNERS



教育部

10 REDUCED INEQUALITIES



13 CLIMATE ACTION







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