



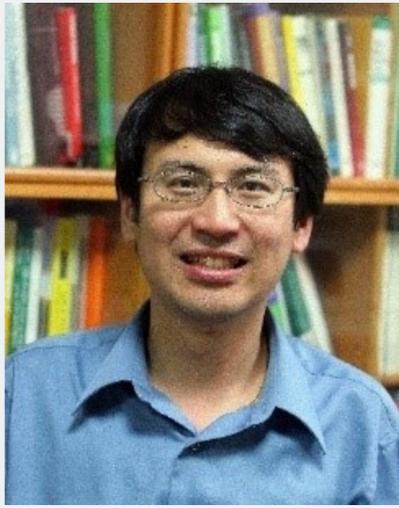
國際氣候發展智庫
International Climate Development Institute

2020-2021 Yearbook



Table of Contents

1. About International Climate Development Institute.....	1
2. 【SDG13】 Partnership with Governments towards Regional	
• Asia Pacific Climate Service Workshop.....	5
• Taiwan Climate Services Partnership(TCSP) and Climate Service Workshop.....	6
• 2020 Climate Service Application for Green Building.....	7
• 2020-2022 Belmont Forum Project.....	9
3. 【SDG13XSDG11XSDG17】 Partnership with Cities	
• 2020-2021 Sustainable City Forum.....	11
• Global Smart Solution Report.....	13
• 2021 Taiwan Climate Action Expo.....	15
4. 【SDG13XSDG4XSDG17】 Partnership with Academia and Civil Society	
• Community-Based Adaptation in Taiwan.....	17
• Publications and E-newsletter.....	18
5. 【SDG13XSDG8XSDG17】 Partnership with Business	
• Business Action on Climate Change Alliance.....	20
6. Executive Team.....	21



Preface

-- Fulfilling Climate Commitments Firmly in Turbulence

Mr. Lin Tze-Luen, President of ICDI

In 2020, COVID-19 is undoubtedly the most challenging issue in the world, and it has also subverted human's perception of the threat of public crises. Global warming, as unpredictable as the epidemic, will bring mankind to an uncertain future as well. In the face of extreme weather triggered by climate change, such as floods, typhoons, and droughts, cities urgently require new smart governance measures. Through introducing smart solutions to improve energy efficiency, promoting circular economy, and improving resilience are multiple ways to adjust the impact of climate change.

Despite the severe epidemic, many countries including South Korea, Japan, and the United States have announced that they will achieve carbon neutrality by 2050. In addition to setting targets of carbon reduction, the new US President Biden appointed former Secretary of State John Kerry as a special envoy for climate change to promote the US\$2 trillion climate plan, which represents the United States attaches importance to this issue. It is also encouraging that more and more companies have participated in carbon reduction actions and operated the organization with the core value of sustainable development. The changes in the transportation industry are the most obvious. For example, the leading automakers such as General Motors and Ford in the United States have announced that they will phase out fuel vehicles, fully develop electric vehicles, and set the goal of carbon neutral. With more and more companies engaging in reducing carbon emissions, we look forward to a spillover effect and promote more types of industries to respond to carbon neutral.

*UN Climate Change. 2021. "Climate Commitments Not On Track to Meet Paris Agreement Goals" as NDC Synthesis Report is Published. United Nations Framework Convention on Climate Change (UNFCCC) . <https://reurl.cc/a5ddGZ>. Latest update 8 March 2021.

At the moment when both the public and private sectors have taken action, the UNFCCC secretariat released the ***The NDC Synthesis Report*** in February this year, still calling on all countries to work harder to keep global warming within 2 degrees Celsius before the end of this century. In view of this, in the process of mitigating climate change, we should not rely on the past model of only the public sector formulating policies and guiding the private sector to undertake low-carbon transformation. The public and private sectors should work together to achieve the goals of ***Paris Agreement***.

Since the International Climate Development Institute was established in 2015, we have taken the implementation of human rights to the environment and development as our mission. By compiling the plans implemented by the institute from 2020 to 2021 into a book, showing the results of cross-domain cooperation, we look forward to encouraging more stakeholders to invest in mitigating climate change, so that the vision of sustainable development can spread in Taiwan and the world.

About ICDI

International Climate Development Institute is a non-profit organization that focuses on climate change, human rights, intergenerational justice, and developing 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.

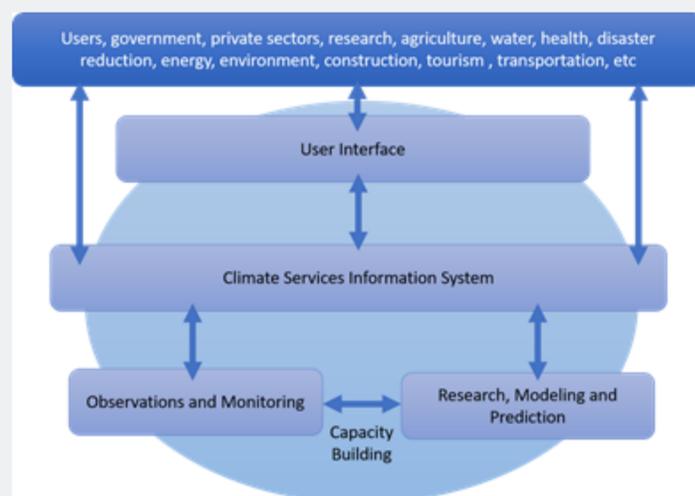
Enlightened on Sustainable Development Goals

In September 2015, when the United Nations held the "United Nations Development Summit" (Rio+20) at New York headquarters, member 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

A group of partners in various fields have decided to "Take urgent action to combat climate change and its impacts," which is based on the 13th sustainable development goal, as the core value of the organization, to implement the human right to development through "climate action".

Team members in ICDI vary from industry, government, academia, to 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.



©WMO | GFCS

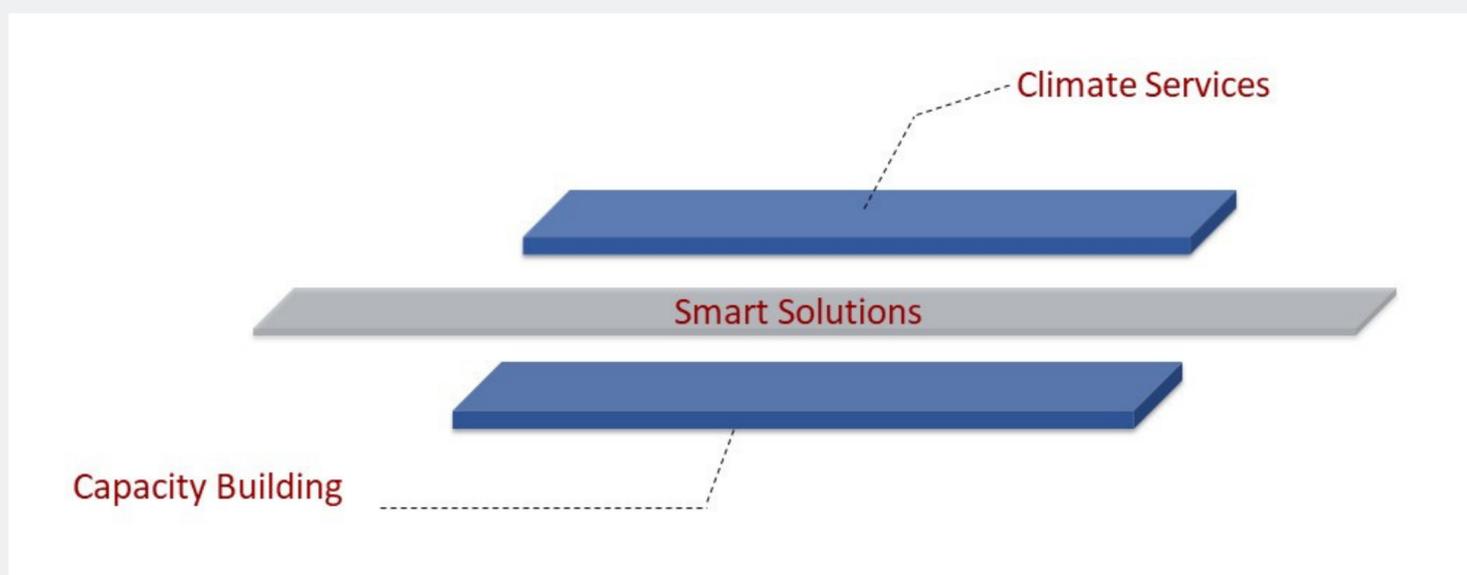


2015 Climate Action Network Forum

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.

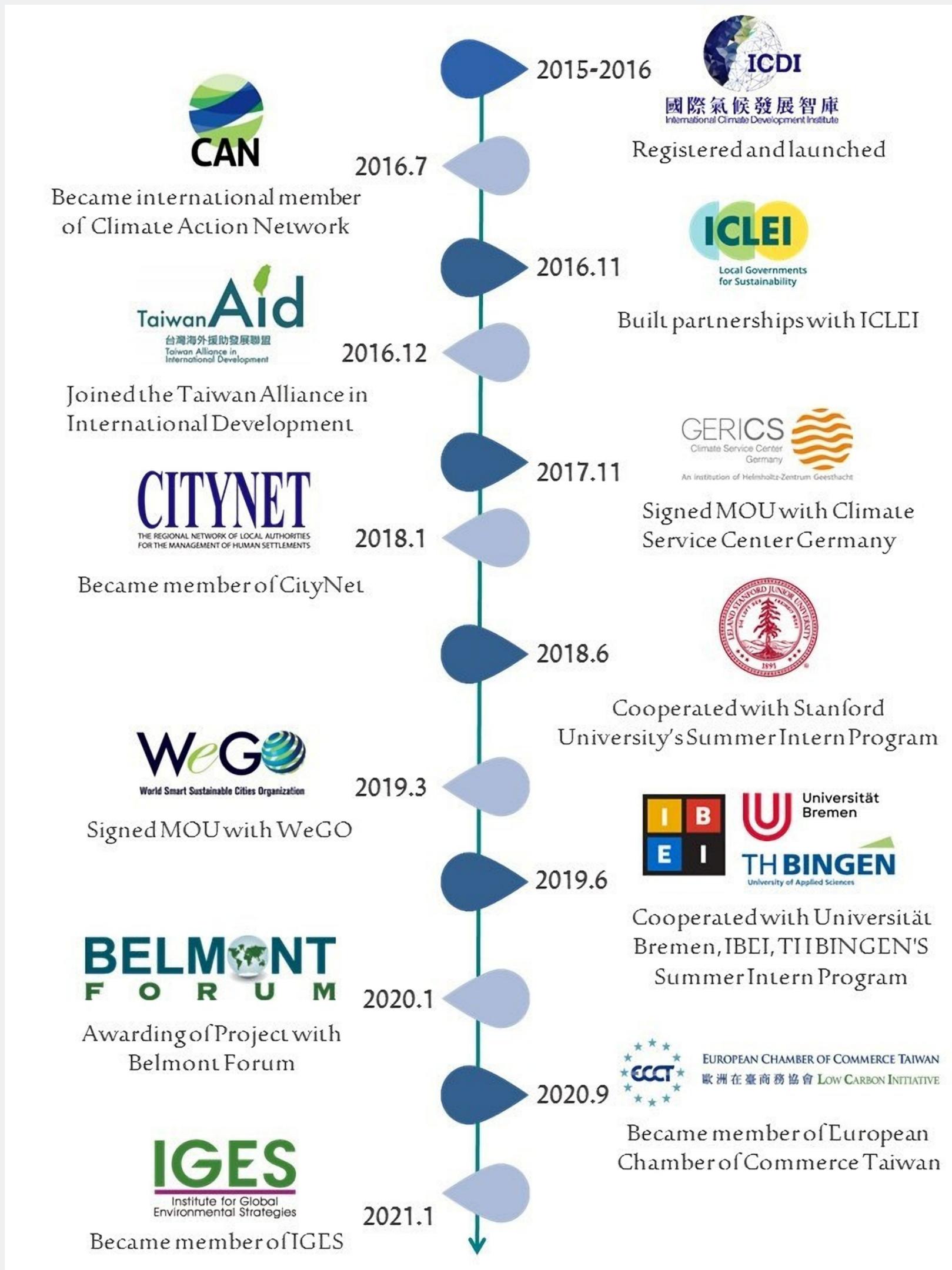


© ICDI



Mr. Lin Tze-Luen, President of ICDI, held the side event at COP21 in Paris, 2015

Milestone



Partnership with Governments towards Regional Top-Down Climate Policies and Actions



Asia Pacific Climate Service Workshop

Partners



In 2019, International Climate Development Institute held Asia Pacific Climate Service Workshop with Central Weather Bureau to review the current development, the facing challenges and the potential chance of partnerships from the scale of international and national.

This workshop invites meteorologists, policy makers, climate service users from Japan, Korea, Thailand, Vietnam, Philippine, and Indonesia, and experts from APEC Climate Center to share and promote the successful model and experience of climate service.



2019 Asia Pacific Climate Service Workshop

2 Taiwan Climate Services Partnership (TCSP) and Climate Service Workshop

Partners



The purpose of the establishment of the "Taiwan Climate Services Partnership (TCSP)" is to gather stakeholders from Taiwan's meteorological industry chain and value chain, including suppliers and demanders of meteorological information or services from upstream to downstream.

It is to achieve the business clustering effect for the development of the meteorological industry, and promote climate services and effective utilization of meteorological information.

On October 7, 2020, the CWB, ICDI, MSROC, CAMA, MADF, MIA and CIER held the "First Taiwan Meteorological Industry Forum". Dr. Chia-lung Lin, the minister of the Ministry of Transportation and Communications (MOTC), came in person and gave an opening speech and announced the launch of the preparatory work for the establishment of the "Taiwan Climate Services Partnership (TCSP)" together with the sponsors of the alliance.



Launching the "First Taiwan Meteorological Industry Forum" and the third "Climate Service Workshop" conference on October 7, 2020

3 2020 Climate Service Application for Green Building Green Building Information Model & Micro Climate Database Maintenance Program

Partners



As energy consumption in commercial buildings increases, much proportion of that is wasted. To optimize energy efficiency, ICDI builds the “Green BIM Micro Climate Database” website in cooperation with the Delta Electronics Foundation, the Central Weather Bureau and the Taiwan Architecture & Building Center by collecting weather information.

This project aims to assist architects to take into account the climate and environmental impacts as well as energy waste in preliminary design stages.

Results of the project in 2020:

- **Dynamic Expansion:** Collected 26 weather stations of all countries and produce TMY3 to apply on Building Information Modeling (BIM).
- **Industry Connection:** Held a seminar regarding the “Green BIM Micro Climate Database” website at the Sun Yun-Suan Memorial Museum, inviting 7 professional architects and professors.



The “Green BIM Micro Climate Database” website

- **Experience Sharing:** Demonstrated the result of the pilot project in cooperation with the National Museum of Marine Science & Technology through an online presentation of “Green BIM Micro Climate Database” at Delta Electronics Foundation.
- **Promotion to Climate Industry:** Presented at TWCSA and the Climate Service Workshop.

The innovative climate service is widely reported by various media, including ELTA TV, Liberty Times Net, Taiwan News and IC Broadcasting.



Seminar



Green BIM online presentation



The group photo of the Green BIM online presentation

2020-2022 Belmont Forum Project

Addressing Extreme Weather Related Diarrheal Disease Risks in the Asia Pacific Region (AWARD-APR)(I)

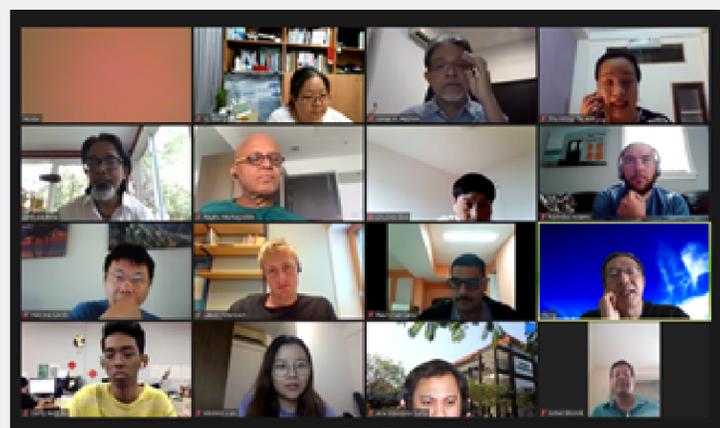
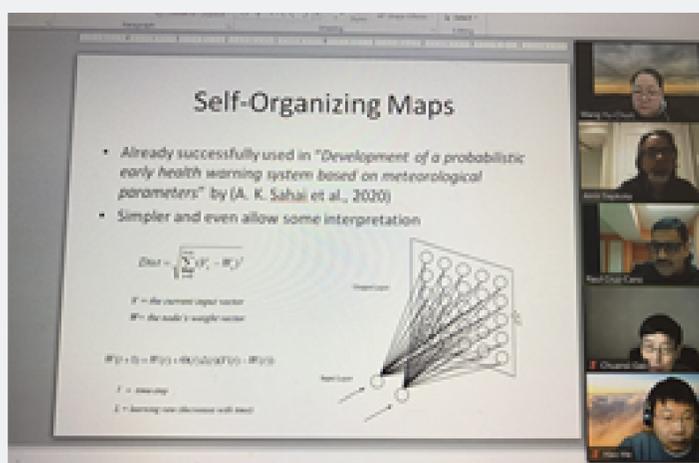
Partners



Diarrhea, highly associated with ambient rainfall and temperature, is the second leading cause of death in children under the age of five. This study, under Belmont Forum 'Climate, Environment and Health' Collaborative Research Action, proposal "Addressing Extreme Weather Related Diarrheal Disease Risks in the Asia Pacific Region (AWARD-APR)", aims to evaluate the associations among extreme weather events, El Niño Southern Oscillation phenomenon, and mortality from and morbidity of diarrhea in the multinational consortium, including Taiwan, India, China, Vietnam, Nepal, Bangladesh, and Indonesia.

Result of the project in 2020:

- collected and collated meteorological data for Taiwan, Indonesia, India, Malaysia, Vietnam, Nepal, China, and South Pacific island countries.
- Due to the impact of Covid-19, currently only the health data of Taiwan, Indonesia, India, South Pacific island countries and Nepal were collected and compiled.
- By the end of 2020, our team used negative binomial regression (NBR) and generalized additive model (GAM) to analyze and study the correlation between the collected health data and meteorological data.



*For more information, please refer to the official website of AWARD team:
<https://vinnyv28.github.io/AWARD-APR/teamUMD.html>



Partnership with Cities

Cities as the Best Units to Carry out Climate Resilience



1 2020-2021 Sustainable City Forum

Partners



EUROPEAN CHAMBER OF COMMERCE TAIWAN
歐洲在臺商務協會 LOW CARBON INITIATIVE



The Sustainable City Forum is one of the major annual events of Smart City Summit & Expo (SCSE). Since its first event in 2017, the forum has received worldwide responses every year.

With an aim to achieve SDG11, the organizers hope to bring together the smart solutions in renewable energy, energy efficiency, green finance, circular economy, and Eco-mobility via this platform.



The group photo of honorable guests joining online and offline

The Smart City Summit & Expo, co-organized by the Taipei Computer Association, Taipei City Government, and Taiwan Smart City Solution Alliance, serves as the smart city solution platform.

After three years of hard work, Taoyuan City Government started to co-host the Sustainable City Forum. In 2021, ICDI and partner organizations held two forums with the topic of "Sustainable Recovery."



The group photo of representatives, speakers, and all participants

Results of the project

- 150 honored guests attended the main forum of the Sustainable City Forum and 448 honored guests participated online in March 2021.
- This forum was also broadcast live through both Chinese and English channels.
- The forum connects prestigious international organizations from different fields, including ICLEI, CityNet, EBRD and IGES.
- The forum was broadcasted by UstvMedia(非凡) and Formosa TV(民視), and released on internal and external print media, such as AppleDaily and LTN as well.



Jean-François Casabonne-Masonnave, Director of the French Office in Taipei, introduced France's various strategies to become carbon neutral by 2050



The group photo of distinguished guests

2 Global Smart Solution Report

Partners



工業技術研究院
Industrial Technology
Research Institute

During COP23, global and regional leaders have issued the Bonn-Fiji Commitment, signifying the strong commitment and intention of local and regional leaders working in partnership with all levels of government to achieve the Paris Agreement.

With the vision to put the commitment into practice and live up to sustainable development goals, this report outlines the diverse urban challenges and provides practical solutions applied to achieve their goals of inclusive, safe, resilient and sustainable human settlements.



ICDI, together with ICLEI Kaohsiung Capacity Center (ICLEI KCC), co-launched the **2019 Global Smart Solution Report: City Challenges and Innovations** during COP24 and the 2019 Smart City Summit & Expo. This report, building on the momentum of Taipei Smart City Summit & Expo 2018 (SCSE), aims to showcase selected smart city achievements around the world.



The theme of **Global Smart Solution Report 2020** is "Compatible, Resilience and Smart Sustainable Cities", and contains 19 innovative solutions, of which 10 are from Asia, 5 are from Europe, 3 are from North America, and 1 is from South America.

In 2019, a brief report was published in advance at a side event of the United Nations Climate Change Conference. And the official report was published in the Smart City Forum and Exhibition of the Sustainable City Forum on September, 2020.

Report 2019 - 2021 : <https://www.icdi.network/publi>

Global Smart Solution Report 2021 focuses on "Eco-Mobility & Eco-Logistics", which includes 11 smart solutions. In the final chapter, we were pleased to share the preliminary results of the Local Energy Governance Rating System (LEGRS) that has been co-developed by ICDI and ITRI with our readers.

ICDI and their partners look forwards to developing the report into an annual publication, publishing a brief version at the Climate Change Conference every year, and presenting an official report at the Smart City Forum and Exhibition of the Sustainable City Forum the following year.



3 2021 Taiwan Climate Action Expo

Partners



Taiwan Climate Action Expo (TWCAE), taking place from December 3rd to 5th 2021, uses “The Future is Now” as an appeal emphasizing the collaboration of public and private sectors to take actions and to reverse the potential impact of climate change in the near future.

During the 3 days’ forum, there are a series of events and exhibitions related with climate issues to attract the public to exchange and share their experiences. With some activities and events are prepared, it would be a great place for professionals, policy makers, NGO workers, climate activists from industries,

government, academia, and research institutions to take actions and make cooperation.

Highlights of TWCAE

- The United Kingdom is the host country of UNFCCC COP26. This expo specially invites the British office Taipei and American Institute in Taiwan to serve as the co-host of the TWCAE, demonstrating Taiwan’s determination to respond to the **Paris Agreement** and "United Nations Sustainable Development Goals."



Partnership with Academia and Civil Society

Bottom-Up Climate Action and Capacity Building



1 Community-Based Adaptation in Taiwan

Partners



Since 2016, ICDI has cooperated with local governments, community colleges and civil communities to provide assistance of capacity building, energy transformation, and development of adaptation strategies to disadvantaged groups to help them move towards a sustainable life with climate resilience.

The main goal of the 2019 Tainan City in Response to Climate Change through Mitigation and Adaptation Plan is to assist Tainan City in making adjustment policies by collecting and analyzing important international information from the United Nations Framework Convention on Climate Change, Intergovernmental Panel on Climate Change, the United Nations Office for Disaster Risk Reduction and the World Meteorological Organization adjustment and disaster reduction.

During the period of this project, professional training of adjustments for several departments and offices was held as well.

Results of the Project:

- 5 cases and analysis of international cities promoting climate adaptation and resilience were collected.
- Two professional training of adjustments on interdepartmental and office were held.
- 5 seminars, 2 reviewer training workshops and 2 proposal workshops were completed.



A series of CBA workshops with Tainan local communities in September 2019.

Camyale Kung-Yueh Chao, Executive Director of ICDI runs the workshop on community participation in Si Wan, Kaohsiung City.



2 Publications and E-newsletter

With people's attention to climate issues increasing, ICDI publishes E-Newsletter to introduce major international climate developments, looking forward to promoting citizens' climate change literacy.

Bimonthly report **Climate and Finance**

The publication aims to provide the latest global trend of climate safety, sustainable development, and green economy issues, such as of Task Force on Climate-related Financial Disclosures (TCFD)'s reports, in order to make Taiwan more resilient.

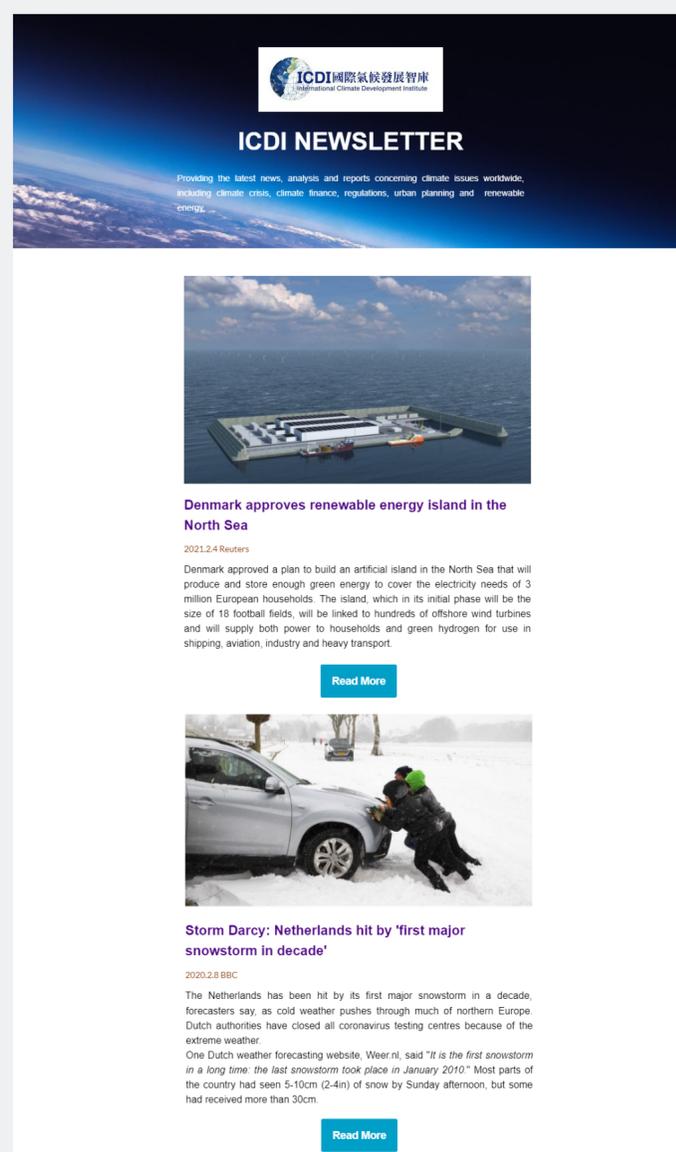
Since debuted on December 2020, Climate and Finance is recognized by experts and is shared by Facebook users.



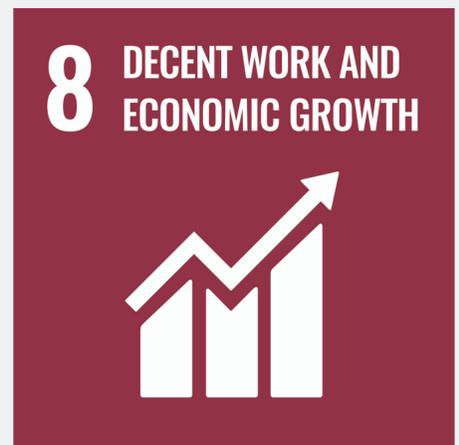
Daily news **ICDI newsletter**

International Climate Development Institute publishes "ICDI E-Newsletter" to introduce major international climate developments, looking forward to promoting citizens' climate change literacy, and learning from foreign climate change actions.

Subscribed readers are from academic institutions, civic groups and private enterprises, etc., and continues to increase.



Partnership with Business Technology Innovation and Climate Services



1 Business Action on Climate Change Alliance

Partners



The purpose of the establishment of the “Business Action on Climate Change (BACC)” alliance is to facilitate the development of a policy environment towards a 2050 net-zero carbon emission country through the integration and collaboration of industry, government and academia. It is to promote the transformation into a low-carbon economy and seize green business opportunities, so that Taiwan’s industries can play an important role in global supply chains in the future.

On December 7, 2020, the first “Climate Initiative” press conference was held in the Legislative Yuan, announcing the official establishment of the BACC Alliance, and issuing the “Taiwan Enterprises Facilitating Climate Action and Low Carbon Business Opportunity Declaration”. Tze-Luen Alan Lin (林子倫), Deputy Executive Director, Office of Energy and Carbon Reduction, Executive Yuan (Premier’s Office), attended the press conference. Many Taiwan legislators also came in person to support the alliance’s demands.



The first “Climate Initiative” press conference

Executive Team



Executive Team



Camyale Kung-Yueh Chao / Executive Director

After extinction, T-Rex became animal fossils underground. As human beings developed fossil fuel industry, fossils indirectly lead to global warming.”



Michael Yu-Cheng Chang Senior Manager

Human action presents threats to the green sea turtle’s survival. The species is in a vulnerable state because of marine pollution, habitat loss, and beach-front construction.



Reinelle Fu-Jung Yang Assistant Researcher

Formosan black bear, voted as the most representative wildlife of Taiwan, has been declined in population because of severe exploitation and habitat degradation.



May Lin / Manager for Administration Affairs

The Arctic hare is highly adapted to living in the Arctic tundra and other icy biomes. Under global warming, the icy environment of its habitat might be changed.



Miya Yi-Ting Liu Project Manager

The humphead wrasse is acknowledged as an umbrella species. To conserve its habitat would not only benefit the wrasse, but also all of the other sympatric species.



Bob Cheng-Hsun Wu Assistant Researcher

The polar bear is classified as a vulnerable species under climate change affects. The key danger posed by climate change is malnutrition or starvation due to habitat loss.



Robin Chen-Hao Chuang Assistant Researcher

Taiwan salamander is endemic to Taiwan, where it occurs in the high mountains at around 3,000 m. Its natural habitats might be influenced by climate change.



Rebeca Zhang
Assistant Researcher

The dugong has been hunted for thousands of years for its meat and oil. Its current distribution is fragmented, and many populations are believed to be close to extinction.



Yu-Han Lin
Assistant Researcher

Black Kite is at the top of the food chain, its natural habitats will be influenced by extreme weather, and the pesticide pollution in the environment and soil.



Annie Tsai
Assistant Researcher

Clouded leopards once inhabited virgin forests above 1,000 meters in Taiwan. Due to excessive hunting and improper forestry management, there has been no record of discovery since the mid-1970s.



Action Wang
Assistant Researcher

The Caspian tiger was once one of the largest cats on the planet. The male tiger is nearly three meters long. In the late 19th century, humans began to hunt the Caspian tiger and cultivated their habitat into agricultural land.



Shu-Jung Liu
Assistant Researcher

King Penguin is originally from South Georgia Island in the southern Atlantic Ocean. Affected by climate change, king penguins are facing the difficulties for finding food and the threat of huge iceberg attack.



Vandon H.W. YU
Assistant Researcher

Meerkats are gregarious animals. While, climate change and environmental development have caused habitat changes and diseases. The desert eventually became an arena for greed and overconsumption.





國際氣候發展智庫
International Climate Development Institute

<https://www.icdi.network/>



106 台北市大安區金華街 199 巷 5 號 610 室
Rm. 610, No. 5, Ln. 199, Jinhua St., Da'an Dist., Taipei
City 106, Taiwan
Tel: +886-2-23959570
www.icdi.network
ICDI-Admin@icdi.asia
icdi.secretariat@gmail.com