TABLE OF CONTENTS

Acronyms ................................................................................................................................. 4
Message from the Secretariat ................................................................................................. 5
About ICLEI Southeast Asia .................................................................................................... 6
Leadership ............................................................................................................................... 8
Membership ............................................................................................................................. 9
Partnerships ............................................................................................................................ 10
Major Engagements Throughout 2022 ................................................................................. 13
Other Engagements in 2022 ................................................................................................. 37
Featured Local Sustainable Development Stories ............................................................... 47
Publications, Case Studies, and Research Work ................................................................ 55
Climate Action Tools and Platforms ..................................................................................... 59
Administration ...................................................................................................................... 65
Contact Information ............................................................................................................... 69

Disclaimer: The contents of this publication is copyrighted. Requests to reproduce this material, whether in part or in full, must be sent to iclsei-sea@iclei.org

All rights reserved. © ICLEI SEAS 2023

Version as of 29 May 2023
ABOUT ICLEI SOUTHEAST ASIA

Who We Are

ICLEI – Local Governments for Sustainability is a global network working with more than 2,500 local and regional governments committed to sustainable urban development. Active in 125+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development. Our Members and team of experts work together through peer exchange, partnerships and capacity building to create systemic change for urban sustainability.

The ICLEI Southeast Asia Secretariat (SEAS), based in Quezon City, Philippines, currently serves ICLEI Members in the Philippines, Indonesia, Malaysia, and Thailand. Established in 1999, ICLEI SEAS currently has 63 members from the aforementioned countries.

ICLEI SEAS prides itself on its body of work over the past years, assisting and supporting local governments in the region in their quest towards sustainable development. To date, ICLEI SEAS has implemented over 50 major long-term programs and projects in cooperation with over 60 nationally, regionally, and internationally-renowned partners. Collectively, they have benefited over 90 local governments and their over 77-million citizens throughout 7 countries in Southeast Asia.

Over the past years, ICLEI SEAS has gained recognition for its efforts in empowering local governments in Southeast Asia by designing, promoting, and drawing external support for programs on urban resilience, low emission development, integrated resource management, and other sustainability themes.

We continue to inspire local action for regional and global sustainability.

Our Services

In the realization of ICLEI SEAS’ advocacy to localize and implement sustainable solutions, it provides an extensive range of services to members and other local governments interested in its programs and projects. ICLEI SEAS’ services include:

- Connect LGs to resources
- Conduct research and study projects
- Develop knowledge products
- Link LGs with global platforms
- Organize learning activities
- Mentor LGs in climate action
- Consult on sustainability issues
- Build institutional capacities
- Facilitate vertical integration
- Program and project design/management

ICYEI Southeast Asia in Numbers

Members in Southeast Asia

63

SEA LGs with Major Engagements

90+

Citizens Living in Engaged LGs

77 million

Major Engagements

50+

Partner Organizations

60+
As of 1 May 2023, ICLEI SEA has 63 Member local and regional governments, including two institutional members: (1) the League of Cities of the Philippines (LCP) and (2) the Association of Indonesian Municipalities (APEKSI).

**Global and Regional Executive Committee**

**Mar-Len Abigail “Abby” Binay**
Mayor of Makati City, Philippines  
SEA Representative to the ICLEI Global Executive Committee  
Chair to ICLEI Innovative Financing portfolio  
Regional Executive Committee Member

**Datuk Shadan bin Othman**
Mayor of Hang Tuah Jaya Municipal Council, Malaysia  
Advisor to ICLEI Circular Development portfolio  
Regional Executive Committee Member

**Dr. H. Syarif Fasha, ME.**
Mayor of Jambi City, Indonesia  
Regional Executive Committee Member

**Alfredo Coro II**
Mayor of Del Carmen Municipality, Philippines  
Advisor to ICLEI Climate Action and Low Emission Development portfolio

**Dato’ Azhar Bin Haji Arshad**
Mayor of Seberang Perai, Malaysia  
Advisor to ICLEI Climate Action and Low Emission Development portfolio

**Membership**

**Philippines (38)**
1. Bacnotan Municipality, La Union  
2. Baguio City  
3. Batangas City  
4. Bohol Province  
5. Bongayan  
6. Capiz Province  
7. Calapan City  
8. Calibiga Municipality, Samar  
9. Camalig City  
10. Capiz (City)  
11. Dangwa Township, Davao del Norte  
12. Dumaguete Municipality, Negros Oriental  
13. Dumaguete Municipality, Zamboanga del Sur  
14. General Santos City  
15. Iligan City  
16. Iloilo Province  
17. League of Cities of the Philippines  
18. Linahum Municipality, Laoag del Norte  
19. Lubang Municipality, Occidental Mindoro  
20. Makati City  
21. Munininhga City  
22. Naga City  
23. Palia City  
24. Puerto Princesa City  
25. Quezon City  
26. Samar Province  
27. San Fernando City, La Union  
28. San Fernando City, Pampanga  
29. San Francisco Municipality, Cebu  
30. San Jose Del Monte City  
31. Science City of Mnlia  
32. Sta. Rosa City, Laguna  
33. Tarlac City  
34. Tubigon Municipality, Bohol  
35. Tubod Municipality, Benguet  
36. Tuguegarao City  
37. Vigan City  
38. Zamboanga City

**Indonesia (14)**
1. Association of Indonesia Municipalities  
2. Balikpapan City  
3. Bogor City  
4. Cilegon City  
5. DKI Jakarta  
6. Jambi City  
7. Medan City  
8. Semarang City  
9. Sukabumi City  
10. Surabaya City  
11. Tanjung Pinang City  
12. Yogyakarta City

**Malaysia (7)**
1. Alor Gajah Municipal Council  
2. Bangi Municipal Council  
3. Langkawi Municipal Council  
4. Melaka Historic City Council  
5. Melaka State Government  
6. Penang Island City Council  
7. Seberang Perai City Council

**Thailand (4)**
1. Bangkok Metropolitan Authority  
2. Chiang Mai Municipality  
3. Muang Songkhla Municipality  
4. Phuket City
PARTNERSHIPS

ICLEI Southeast Asia would like to thank its funding, implementation, and research partners through the years.

Main Funding Partners

Alliance to End Plastic Waste
Asian Development Bank
Canadian International Development Agency
Dutch Ministry of Foreign Affairs
Earth Council
European Commission
European Union
Fondation Botnar
German Federal Ministry for Economic Cooperation and Development
German Federal Ministry for Environment, Nature Conservation, and Nuclear Safety
German Society for International Cooperation
Global Environment Facility
Institute for Global Environmental Strategies
International City/County Management Association
International Institute for Environment and Development
Loughborough University
Japan Fund for Global Environment
Japan Overseas Environmental Cooperation Center
Konrad Adenauer Foundation Singapore
MAVA Foundation
One Planet Network
Philippine Local Government Academy
ProVention Consortium
Renewable Energy and Energy Efficiency Partnership
Rockefeller Foundation
UK Aid
United Cities and Local Governments
United Nations Development Programme
United Nations Environment Programme
United Nations Human Settlements Programme
United States Agency for International Development
United States Environmental Protection Agency
World Bank
World Resources Institute
World Wide Fund for Nature

National Agencies

Indonesian Ministry of National Development Planning
Indonesian Geospatial Information Agency
Indonesian Ministry of Energy and Mineral Resources
Indonesian Ministry of Environment and Forestry
Philippine Climate Change Commission
Philippine Climate Change Service
Philippine Department of Energy
Philippine Department of Environment and Natural Resources

National and International Organizations

Asia Pacific Adaptation Network
ASEAN Centre for Biodiversity
Association of the Indonesia Municipalities
C40 Cities Climate Leadership Group, Inc.
Catholic Relief Services
CDP
Clean Air Initiative for Asian Cities
Climate and Development Knowledge Network
Conservation International
Cordillera Youth Center
Emergent Ventures International Pte. Ltd.
Engagement Global
Food and Agriculture Organization of the United Nations
Fraunhofer Institute for Solar Energy System
Global 100% Renewable Energy Platform
Global Factor
Global Infrastructure Basle Foundation
ICF International
Indonesian Association of Urban and Regional Planners
Institute for Essential Services Reform
International Centre for Environmental Management
International Development Research Centre
International Development Research Centre
International Renewable Energy Agency
Korea Environment Institute
League of Cities of the Philippines
Lokahita
Metro Naga Active Transport Community
Misereor
Modern Energy Cooking Services Programme
Move As One Coalition
Organisation for Economic Co-operation and Development
Perspectives Climate Group GmbH
Philippine Disaster Resilience Foundation
Philippine Green Building Council
ProVention Consortium
Renewables Academy AG
Rocky Mountain Institute
Resilience Development Initiative
Save the Children Indonesia
Seoul Metropolitan Government
Southeast Asian Regional Center for Graduate Study and Research in Agriculture
Swiss Philanthropy Foundation
Swiss State Secretariat for Economic Affairs
Tarabangán Naga
Thailand Greenhouse Gas Management Organization
United Nations Economic and Social Commission for Asia and the Pacific
Vietnam Institute for Urban and Rural Planning
WeSolve Foundation

Academic and Research Institutions

Ateneo School of Government
Bandung Institute of Technology - School of Architecture, Planning, and Policy Development
Manila Observatory
National University of Laos Faculty of Environmental Sciences
University of the Philippines - Los Baños (UPLB) College of Human Ecology
University of the Philippines – Los Baños Department of Community and Environmental Resource Planning
University of the Philippines – Los Baños School of Environmental Science and Management
University of San Carlos
Xavier University
MAJOR ENGAGEMENTS THROUGHOUT 2022
100% RE
100% Renewables Cities and Regions Roadmap

The 100% RE Project aims to support the deep-dive regions in developing a roadmap towards 100% renewable energy, helping contribute to the achievement of NDCs, helping the local governments develop bankable RE projects, and supporting local energy policy development.

Partners
- German Federal Ministry for the Environment (IKI), Nature Conservation, and Nuclear Safety (BMU)
- International Renewable Energy Agency (IRENA)
- Global 100% Renewable Energy Platform
- Renewables Academy (RENAC) AG

Locations (Indonesia)

Main Engagement Location
- West Nusa Tenggara Province (WNT)

Secondary Engagement Locations
- Mataram City
- Sumbawa Regency

Key Accomplishments
- Held the first stakeholder dialogue session for the WNT 100% RE 2050 Roadmap to gather local stakeholder’s recommendations and inputs to enrich the roadmap draft. It was attended by over 70 participants.
- Identified several bankable projects on Renewable Energy and Energy Efficiency in Sumbawa and Mataram to support the implementation of the WNT 100% RE Roadmap.
- Launched a 100% Renewables Energy System Modelling Result for WNT as a reference in developing the WNT 100% Renewables 2050 Roadmap and guiding local action strategies in tackling climate change.
- Conducted a workshop with the Project Implementation Team (PIT) and local government representatives to consolidate relevant projects and policies throughout the cities, districts, departments, and agencies in WNT.
- Conducted the first session of the 100% RE Webinar Series regarding the biogas co-firing potential in WNT. It was attended by over 90 participants.

Notable Highlights for 2022

Over 70 participants from the priority sectors of household, building, industrial, transportation, and electricity attended the first stakeholder dialogue session for the WNT 100% Renewable Energy Roadmap Development project.


The 100% RE team from ICLEI Indonesia and in-person workshop participants during the workshop, including representatives from national government agencies, WNT, Mataram, and Sumbawa.

Over 90 participants from the local government, academe, private institutions, and other stakeholder groups attended the first session of the 100% RE Webinar Series regarding the biogas co-firing potential in WNT.

“We hope that this document, the 100% Renewables Energy System Modelling Results for WNT, can be a reference for our regional apparatus, especially in optimizing the use of renewable energy sources for the welfare of the community. Hopefully, it will be useful for all of us in realizing the vision of a bright Nusa and the achievement of the SDGs.”

Dr. Ir. H. Iswandi, M.Si.
Regional Development Planning Head of WNT Province
AEPW+ICLEI Developing Plastic Waste-free Cities

The Developing Plastic Waste-Free Cities Project is an initiative between the Alliance to End Plastic Waste and ICLEI to help cities formulate sustainable solutions to their plastic waste problems. The project was able to assist cities in developing comprehensive plastic waste management plans and a bankable project proposal to establish the needed infrastructure that will eliminate plastic waste leakages in the respective localities.

Partners
• Alliance to End Plastic Waste (AEPW)

Locations
• Iloilo City, Philippines
• Iskandar Region, Malaysia
• Jambi City, Indonesia

Key Accomplishments
• The project promoted inclusivity by engaging community stakeholders (e.g., household, waste pickers, business owners, local government officers, etc), through a series of workshops, interviews, and discussions in identifying gaps and concerns of plastic waste management in their localities, as well as determining appropriate strategies and actions to address these issues.
• Scientific waste analyses and characterization studies conducted for each project city produced primary quantitative data and information that were used in the development of the project outputs.
• To set the city’s transition from linear consumption to circularity, proposals to implement financially-viable and scientifically-sound projects were prepared for the cities. The proposals highlighted public-private partnerships in operationalizing sustainability.

Notable Highlights for 2022

Over 40 Stakeholders from Iloilo City, Philippines provided valuable insights and possible solutions to tackling the city’s plastic waste problem.

Representatives of Pasir Gudang City presented their plans for improving waste management at Tanjung Langsat Landfill, Iskandar Region, Malaysia.

Iloilo City Environment and Natural Office personnel collects garbage from the garbage booms installed along Batiano River for a baseline study activity.

Almost 30 stakeholders from Jambi City identified the city’s insufficient waste collection infrastructure as one of their main waste management concerns.

“This program is a timely initiative for cities that are committed to plastic waste management. We are grateful for the support that would capacitate us in our resolve to address plastic waste in our locality. Moreover, we look forward to initiate viable measures that we can sustain even after the project timeline.”

- Jerry Treñas
Mayor of Iloilo City
Circle Lab for Cities 2.0

Through the Circle Lab for Cities program, cities can explore circular solutions implemented by their peers, scan their urban metabolism, and act to advance their transition to a circular economy in priority sectors. The program supports cities through an online platform, Ganbatte, taking them through various steps to develop a roadmap for the circular transition of a priority sector.

**Partners**
- Circle Economy
- Metabolic
- Ellen MacArthur Foundation

**Locations**
- Baguio City, Philippines
- Quezon City, Philippines
- Bogor City, Indonesia
- Balikpapan City, Indonesia

**Key Accomplishments**
- Conducted a series of meetings for Baguio, Quezon, Bogor, and Balikpapan in identifying their priority thematic sector for their circular development journey—namely mobility for Baguio and food systems for the other three—and finding relevant case studies from the Ganbatte online platform.
- Arch. Donna Tabangin, En.P., Baguio City Planning, Development, and Sustainability Head, shared the city’s experience at the 2021-2022 ICLEI World Congress in Malmö, Sweden.
- Febby Lestari, Bogor City Head of Economy and Natural Resources Sub-Division, shared the city’s experience at the Circular Economy Show on YouTube organized by the Ellen MacArthur Foundation.

**Notable Highlights for 2022**

- The Baguio engagements provided insights on the city’s current situation, ongoing and planned activities, as well as gaps and challenges facing its transportation sector.

- One of the Zoom engagements with Quezon City’s Climate Change and Environmental Sustainability Department.

- Arch. Donna Tabangin shared Baguio’s journey with the Circle Lab for Cities Program at the 2021-2022 ICLEI World Congress in Malmö, Sweden.

- The online interview with Febby Lestari revolved around the questions of how and why cities are engaging in the circular economy, what cities need in this transition, and how Ganbatte help cities apply circular economy principles in their urban development planning.

“It is an eye opener for us in the city because local governments operate on a linear economy framework. It is with this Circle Lab for Cities program that we can transform the way we do our activities.”

- Arch. Donna Tabangin, En.P.
  Head of Baguio Planning, Development, and Sustainability Office
Harnessing Cities’ Share in the Implementation of the Environment and Natural Resources Component of the Philippine NDC

This is a capacity building development program that was launched to assist cities in developing and enhancing their local climate change mitigation targets and strategies. This project intends to build the capacities of Filipino local government officers in the fundamentals of evidence-based, inclusive, and integrated low-emission urban development strategies that the country’s local government units (LGUs) are encouraged to pursue.

Partners

- Department of Environment and Natural Resources – Climate Change Service (DENR CCS)

Locations (Philippines)

Main Engagement Locations
- Baguio City
- Bataan Province
- Butuan City
- Cagayan De Oro City
- Calapan City
- Caloocan City
- Davao City
- General Santos City
- Iligan City
- Iloilo City
- Lapu-Lapu City
- Legazpi City
- Manila City
- Naga City
- San Fernando City
- Santa Rosa City
- Santiago City
- Surigao City
- Tacloban City
- Tagum City
- Valenzuela City
- Zamboanga City

Secondary Engagement Locations
- Alaminos City
- Antipolo City
- Binalan City
- Cebu City
- Dipolog City
- Gingoog City
- Kidapawan City
- Palo City
- Puerto Princessa City
- San Carlos City

Key Accomplishments

- Provided Climate Change Mitigation Action Plan and GHG Inventory Workshops to the Priority Cities of the project. This included three webinars on local climate change mitigation action planning attended by over 450 participants from LGUs, DENR, and the Department of the Interior and Local Government (DILG).
- Throughout the course of the project, over 270 city staff participated in a capacity building webinar series to shape climate action from the ground up, with over 200 regional staff from the DENR and DILG joining and providing guidance to the cities.
- 17 City Promise Work Plans were developed by the 17 priority LGUs that completed the coaching sessions.

Notable Highlights for 2022

The inception workshop saw over 140 participants from the DENR and LGUs learning about the project, basic climate science, and Philippine NDC information.

A three-part webinar series involving over 90 representatives from the DENR, DILG, and LGUs served as a platform to discuss local climate change mitigation action planning, GHG inventory, and climate financing.

20 cities identified by the DENR-CCS took part in coaching sessions wherein they received in-depth feedback on their respective City Promise work plans.

The City Promise work plans set out how each city will update its inventory and mitigation actions with identified actions, timelines, roles, and responsibilities.

"Your individual City Promises and Low Emission Development Strategies shall provide, as what we call as, your harnessed share to the achievement of the targets of the Philippine’s Nationally Determined Contribution."

- Elenida Basug
  Director of DENR-CCS

2022 - 2023
OPC City
The One Planet City Challenge (OPCC) is the longest-running biennial global challenge by the World Wide Fund for Nature, with over 400 cities from 53 countries on five continents participating since its inception. It recognizes the participating cities' efforts on developing low-carbon solutions and helping advance the global transition to a climate-resilient future. It also incentivizes cities to report their inclusive climate actions and climate commitments.

Partners
- World Wide Fund for Nature (WWF) Philippines and Indonesia

Locations

Philippines
- Baguio City
- Batangas City
- Cagayan de Oro City
- Davao City
- Dipolog City
- Legazpi City
- Makati City
- Ormoc City
- Pasig City
- Quezon City
- San Carlos City
- San Fernando City, La Union
- Santa Rosa City, Laguna
- Tagum City
- Vigan City
- Zamboanga City

Indonesia
- Bekasi City
- Blitar City
- Bogor City
- Gorontalo Regency
- Jakarta City
- Balikpapan City
- Jambi City
- Lampung Barat Regency
- Langsa City
- Malang City
- Mataram City
- Mataram Regency
- Pesisir Barat Regency
- Probolinggo City
- Sanggau Regency
- Semarang City
- Sukabumi City
- Tangerang City
- Tarakan City
- Trenggalek Regency
- Yogyakarta City

Key Accomplishments
- Dipolog and Jakarta emerged as their country’s respective national winners, with Quezon, Davao, Balikpapan, and Probolinggo rounding up the finalists.
- Probolinggo was declared the regional and overall global winner of this year’s We Love Cities (WLC) campaign, besting 62 other cities across 27 countries.
- Assisted the 37 participating cities with climate data reporting through CDP-ICLEI Track.
- Co-formulated and presented 37 localized feedback reports that contextualized and supplemented WWF-Sweden’s Final Feedback Reports for Cities. These reports provided insights and recommendations on how cities can set more ambitious local climate actions.
- Facilitated a multi-stakeholder dialogue that called for stronger recognition and harnessing of local governments’ capacity and potential to catalyze NDC implementation.

Notable Highlights for 2022

City representatives and guest speakers during the culminating event of the OPCC in the Philippines. Source: WWF-Philippines

The national winners of the OPCC in Indonesia.

Citizens of Probolinggo City actively participated in the We Love Cities campaign. Source: Probolinggo City website

Workshops and dialogue sessions were held in each country for the participating cities to share opportunities and challenges related to their climate action efforts in support of their country’s NDCs.

“We embarked on a comprehensive campaign of Probolinggo City’s environmental programs and encouraged citizens to engage and provide their support through voting, suggesting sustainability ideas, and social media interactions.”

- Habib Hadi Zainal Abidin
  Mayor of Probolinggo City
The Malmö Summit

2021-2022 ICLEI World Congress

Various Southeast Asian cities witnessed the culmination of 2021-2022 ICLEI World Congress at The Malmö Summit in Sweden last 11-13 May 2022. A number of mayors and other local government representatives from the Philippines, Indonesia, Malaysia, and Thailand joined the World Congress physically and virtually, learning from and inspiring one another on the best practices in local sustainable development.

Locations

• Malmö City, Sweden

Key Accomplishments

• Local chief executives in attendance at the in-person summit included Dr. H. Syarif Fasha, ME, Mayor of Jambi City, Indonesia and ICLEI SEA Regional Executive Committee Member; Dato’ Azhar Bin Haji Arshad, Mayor of Seberang Perai Municipal Council, Malaysia and Advisor to the ICLEI Climate Action and Low Emission Development portfolio; and Assannee Buranupakorn, Mayor of Chiang Mai Municipality, Thailand.

• Mar-Len Abigail “Abby” Binay, Mayor of Makati City, Philippines, Southeast Asia Representative to the ICLEI Global Executive Committee, and Chair to the ICLEI Innovative Financing portfolio; and Alfredo Coro II, Mayor of the Municipality of Del Carmen, Philippines and Advisor to the ICLEI Climate Action and Low Emission Development portfolio, led the roster of virtual attendees.

• Serving as speakers and resource persons during the summit were Mayor Abigail Binay of Makati, Philippines; Mayor Dato’ Azhar Haji Arshad of Seberang Perai, Malaysia; Mayor Alfredo Coro II of Del Carmen, Philippines; Arch. Donna Tabangin, Planning, Development, and Sustainability Head of Baguio, Philippines; and Engr. Neil Ravena, Acting City Environment and Natural Resources Officer of Iloilo, Philippines.

Notable Highlights for 2022

Some of the region’s representatives at the Congress, including ICLEI Southeast Asia and Indonesia; Hang Tuah Jaya and Seberang Perai, Malaysia; Baguio and Dumingag, Philippines; and Chiang Mai, Thailand.

Mayor Dato’ Azhar Haji Arshad of Seberang Perai, Malaysia (second from right) during the panel discussion on “Accelerating ambitious climate action: Bridging climate emergency and climate neutrality.”

Mayor Alfredo Coro II of Del Carmen, Philippines (via Zoom, bottom) talks about how his municipality uses nature-based solutions to bolster resilience.

Mayor Abigail Binay of Makati City, Philippines, officially launches the 2022 Call for Applications of the Transformative Action Program.

Engr. Neil Ravena, Acting City Environment and Natural Resources Officer of Iloilo City, Philippines, discusses the city’s plastic waste management efforts.

Mayor Assannee Buranupakorn of Chiang Mai, Thailand (left) meets Mayor Syarif Fasha of Jambi City, Indonesia (right) during the Malmö Summit.
TUMI
Transformative Urban Mobility Initiative (TUMI) E-Bus Mission City Network

The TUMI E-Bus Mission will help cities in emerging and developing economies to raise their ambition and pave the way toward the rollout of clean bus fleets. Specifically, this mentorship program aims to improve their awareness, political buy-in, and capacity toward the accelerated deployment of electric buses, in close collaboration with the TUMI partners.

Partners

- German Ministry for Economic Cooperation and Development (BMZ)
- C40 Cities
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- The International Council on Clean Transportation (ICCT)
- The Institute for Transportation and Development Policy (ITDP)
- The International Association of Public Transport (UITP)
- World Resource Institute (WRI)

Locations (Indonesia)

- Bandung City
- Bogor City
- Denpasar City
- Medan City
- Palembang City
- Pekanbaru City
- Semarang City

Key Accomplishments

- Facilitated the first peer-to-peer-exchange in Indonesia under the program attended by over 40 participants composed of representatives of national, provincial, and city governments, NGOs, and bus operators.
- Facilitated a second peer-to-peer exchange involving 13 local government officials from the engagement cities.
- Facilitated a study tour attended by over 20 participants from the local governments and partners which provided an opportunity for the seven cities to learn and understand the electric bus operational system in detail.

Notable Highlights for 2022

Representatives from the national government, local government, private sector, and ICLEI Indonesia during one of the peer-to-peer exchanges.

13 local government officials from 7 cities in Indonesia, along with other partners, participated in the second peer-to-peer exchange session.

One of the city dialogue sessions discussed the regulatory hurdles, planning, development, and financing strategies of the e-bus transition in Indonesian cities.

The city and partner representatives rode an electric bus operated by Transjakarta and visited an e-bus charging station during a study tour.

“We are grateful and appreciate the TUMI program for initiating this agenda. This helps us align our vision and perspectives towards building sustainable transport through the transition to electric vehicles.”

Suharto, ATD., M.M
Director of Public Transport at the Indonesia Ministry of Transportation
Article 6
Pilot Projects Under Article 6 of the Paris Agreement in Indonesia

The project aims to support local and national capacities in the conceptualization and implementation of projects conducted under the mechanisms provided by Article 6 of the Paris Agreement. This particular provision seeks to enable city governments to undertake climate-related projects through carbon markets. Specifically, the project intends to find a pragmatic approach to developing and implementing the Internationally Transferred Mitigation Outcomes (ITMO) with relevant stakeholders.

**Partners:** International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU); Perspective Climate Research gGmbH

**Locations (Indonesia)**
- Yogyakarta City

**Key Accomplishments**
- Facilitated strategic meetings with key national agencies such as the Indonesian President’s Executive Office, Ministry of Finance, and Ministry of Environment and Forestry to secure institutional support to the project
- Secured the political commitment and participation of Yogyakarta City as a pilot and partner city in harnessing the opportunities for Indonesian local governments in utilizing the Article 6 mechanisms of the Paris Agreement in implementing climate actions.
- Conducted cross-sectoral consultations with local government representatives to discuss policies, plans, and data related to climate change.

A focus group discussion between various agencies in the City of Yogyakarta to discuss policies, plans, and data related to climate change.

ASEP-CELLs
Access to Sustainable Energy Programme-Clean Energy Living Laboratories

Access to Sustainable Energy Programme-Clean Energy Living Laboratories (ASEP-CELLs) is a project that supports the Philippine Department of Energy, through the funding of the European Union, in achieving 100% rural electrification through renewable energy, thus increasing the share of renewable energy in the Philippines’ energy mix, and promoting energy efficiency towards sustainable and inclusive growth.

**Partners:** European Union; Ateneo School of Government; University of San Carlos; Xavier University; Manila Observatory

**Locations (Philippines)**
- Santa Rosa City, Laguna
- Bohol Province
- Cagayan de Oro City

**Key Accomplishments**
- Held five face-to-face and online energy efficiency fora to mainstream energy efficiency and conservation (EEC) policies, programs, best practices, and financing modalities that convened over 400 local government unit (LGU) representatives, in addition to participants from other stakeholders such as national government agencies, civil society organizations, academe, and the private sector.
- Supported the conduct of a study and workshop for an energy modelling and techno-economic assessment of the proposed solar photovoltaic system at the Bohol Provincial Capitol.
- Capacitated three pilot local government units to comply with the Philippine Energy Efficiency and Conservation Act, come up with an EEC plan, and assess EEC strategies.
- With the guidance of the DOE Energy Utilization and Management Bureau, supported the development of the Local Energy Efficiency and Conservation Plan (LEECP) Guidebook, LEECP Primer, and the Government Energy Management Program (GEMP) brochure that discusses steps for LGUs to develop a LEECP, the mandates of the LGUs outlined in the Energy Efficiency and Conservation Act, and the requirements of the GEMP.
The Global Covenant of Mayors for Climate and Energy (GCoM) has over 100 commitments across 8 countries in Southeast Asia. The participating cities and partners of GCoM share a long-term vision of supporting voluntary action to combat climate change and working towards a resilient and low-emission society. ICLEI provides technical support to cities to improve the quality of their reported data and offer guidance towards climate neutrality. **Partners:** Global Covenant of Mayors for Climate and Energy (GCoM); C40; United Cities and Local Governments (UCLG)

**Locations**
- GCoM-committed cities in Southeast Asia

**Key Accomplishments**
- Conducted a webinar for GCoM-committed cities in Southeast Asia on climate data disclosure using the CDP-ICLEI Track platform. This webinar was made possible by the collaboration among ICLEI SEA, GCoM Southeast Asia, UCLG-ASPAC, and C40, and was attended by over 50 participants from Indonesia, Malaysia, Philippines, and Thailand.

Randy Primrizqi, Resilience Officer of UCLG-ASPAC, presented a brief overview of GCoM, the reporting journey, and the badges acquired from reporting city data.

The main goal of this engagement is to identify key entry points and provide recommendations on where sustainable development principles can be mainstreamed in the existing programs, policies, projects, and activities of the Philippine government especially in the road to recovery from the COVID-19 pandemic. The report makes a case that greening the country’s recovery will provide compounding benefits to boost the economy and protect society from future shocks. **Partners:** United Nations Development Programme; Global Factor

**Locations**
- Philippines

**Key Accomplishments**
- Supported the development of the “Greening the Philippines’ Recovery and Resilience Strategies” report.
- Organized an online parallel session to discuss the report during the 60th Annual Meeting and Conference of the Philippine Economic Society attended by over 100 participants and high-level speakers from the private sector and local government associations.
- Developed two policy briefs: “The Need for Green Recovery” and “Accelerating Green Recovery at the Local Level.”
- Developed various materials, including four infographics and three summary presentations as part of the project’s communications and advocacy packet.

Speakers and panelists from the online parallel session conducted as part of the 60th Annual Meeting and Conference of the Philippine Economic Society.
The MECS project was a short research project funded by the UK Aid and conducted through the Department of International Development. It explored the drivers of fuel stacking practices and the barriers to a full transition to clean cooking in Indonesian low income and peri-urban households. The results of the study will support the development of West Nusa Tenggara Province’s 100% Renewable Energy Roadmap.

**Partners:** UK Aid; Loughborough University; the World Bank Energy Sector Management Assistance Program

**Locations (Indonesia)**

- Mataram City
- Sumbawa Regency

**Key Accomplishments**

- Published the final report regarding Mataram City and Sumbawa Regency households’ fuel stacking behavior, and identifying cultural, social, and economic factors that bar full transition to clean cooking, including recommendations on how the LG’s can help transition to clean cooking.

---

The Safe and Sound Cities (S²Cities) is a global program aiming to improve the safety and well-being of young people in urban environments in secondary cities. The program seeks to understand urban systems better and their influence on safety and well-being, build capacity within these systems, and enable youth innovation to solve critical challenges for safer urban environments. S²Cities will also establish a global learning network of cities, young people, thought leaders, and practitioners to foster a better understanding of urban safety for young people.

**Partners:** Global Infrastructure Basel (GIB) Foundation; Swiss Philanthropy Foundation; Fondation Botnar; World Resources Institute - Indonesia; Cordilleran Youth Center; WeSolve Foundation, Inc.

**Locations**

- Bandung City, Indonesia
- Baguio City, Philippines
- Naga City, Philippines

**Key Accomplishments**

- Secured a partnership agreement with the Bandung City Government for the implementation of the program.
- Conducted a survey with over 270 youth respondents and their perspective regarding Bandung’s safety for its youth and the city’s youth safety programs, projects, and activities.
- Facilitated the selection of new project cities in Southeast Asia, with Baguio and Naga being chosen as new sites for the project’s second year of implementation in 2023.
- Supported the call for a global research partner and local Youth Innovation and Capacity Building grantees for Baguio and Naga.
- Supported the recruitment of local governments to the S²Cities Global Learning Network, an exclusive network of partner cities and key stakeholders that work together on topics of safety and security of young people in urban environments.

---

ICLEI Indonesia and WRI facilitated a focus group discussion with Scout Community (Pramuka) of Bandung to discover and understand their concerns regarding urban development in the city.
SSCIS
South-South Collaboration on Climate Information Services: Baseline Survey on Climate Information Services for Local Government Units

This engagement aims to use jointly developed climate information services (CIS) to contribute to an expanded knowledge base for understanding climate change and its impacts to make informed decisions in planning and implementing adaptation and mitigation measures.

**Locations (Philippines)**
- 677 cities and municipalities across 74 provinces in the major island groups of Luzon, Visayas, and Mindanao.

**Key Accomplishments**
- Conducted a baseline survey with 677 Philippine local government units’ (LGUs) to measure their level of satisfaction with their access to and use of CIS, particularly those provided by academic institutions. The information gathered will be used to design the training programs and other technical aid to be provided under the SSCIS project.
- Organized an online feedback session and workshop attended by 66 respondent LGUs to discuss the results of the baseline survey and inform them of the succeeding project activities.

**ZCBA**
Zero Carbon Building Accelerator

The Zero Carbon Building Accelerator is part of the World Resources Institute (WRI) Buildings Initiative. It builds on WRI’s success with the Building Efficiency Accelerator (BEA) to bring in new ambitions to support national and local governments in decarbonizing buildings by 2050.

**Locations (Philippines)**
- Indonesia
- Malaysia
- Philippines

**Key Accomplishments**
- A building energy efficiency capacity building program for Southeast Asian cities was designed based on recommendations from SEA local governments.
- 175 participants from different stakeholder groups in Southeast Asia participated in a webinar series that tackled the basics of building decarbonization.
- Four BEA member-cities shared their milestones and plans in accelerating building energy efficiency during knowledge exchange sessions.

ICLEI Southeast Asia representatives together with speakers from various organizations discussed building decarbonization measures to confront climate emergencies in cities, highlighted the key metrics in assessing energy efficiency and renewable energy solutions towards resiliency, and tackle the importance of basic economic and financial analysis of building decarbonization strategies.
OTHER ENGAGEMENTS IN 2022
The forum brings together diverse stakeholders to highlight cross-sector and multi-level opportunities to support the implementation of circular economies.

**Location**
- Indonesia

**Key Highlights**
- Nisa Nidasari, ICLEI Indonesia Project Officer for Circular Economy, served as one of the panelists during the plenary session on "Harnessing the Production Efficiency of Industry in Indonesia."
- Nidasari also shared ICLEI’s collaboration with the Circle Economy to develop the Ganbatte platform, the first online platform providing key data insights and proven solutions on circular economy for more than 6,000 cities worldwide.

---

This webinar provided an opportunity to reflect, take stock, and look ahead to what further action is needed in and for cities to go to the next level of transformative climate action. Key Urban-LEDS project impacts and outcomes were summarized, and reflections and lessons learned were shared by Mayors and Ministers engaged in the project.

**Locations**
- Laos
- Indonesia

**Key Highlights**
- The Transformative Actions Program (TAP) plays a significant role in making a project ready and bankable since climate finance supports the deliverables of Climate Action in 60 Urban-LEDS cities.
- Urban-LEDS II cities were supported in preparing multi-sectoral climate actions and strategies throughout the project implementation.

---

The ASEAN member states discussed the state-of-play of urban resilience in the region and ways to further intensify cooperation of the three existing working groups on climate change, disaster risk reduction, and urbanization, particularly on implementing the ASEAN Guidelines on Urban Resilience.

**Location**
- Thailand

**Key Highlights**
- Over 50 participants from ASEAN Member States attended.
- Mary Jane Alvarez, ICLEI SEA Regional Program Manager, shared experiences and lessons learned from assisting local government in Asia to integrate urban resilience into sub-national strategic planning. She discussed the ICLEI-ACCCRN Framework which promoted engagement, inclusion, scale, embeddedness, and transformation in various SEA cities.
- The workshop produced a report which will support the implementation of the ASEAN Guidelines on Urban Resilience.

---

The knowledge exchange sessions aimed to understand the needs and priorities of Building Efficiency Accelerator members towards building energy efficiency and sectoral decarbonization that will serve as inputs to shape programs for SEA cities.

**Locations**
- Iskandar Region, Malaysia
- Mandaluyong City, Philippines
- Pasig City, Philippines
- Santa Rosa City, Philippines

**Key Highlights**
- BEA member-cities shared their milestones and outlook in terms of data management as well as green building policies and infrastructure designs.
- BEA member-cities recommended pilot-testing, matchmaking with technology and solutions providers, and city-to-city learning exchanges as effective activities to improve their knowledge and skills on building decarbonization.
This webinar gathered cities and regions around Southeast Asia to mobilize subnational actions towards achieving the goals and ambitions set by the Convention on Biological Diversity (CBD) and its Parties.

**Key Highlights**
- Over 70 local government participants attended the virtual webinar from various countries around the region.
- The Philippines’ Puerto Princesa City Environment and Natural Resources Office presented the local government’s efforts to restore and conserve its biodiversity, specifically through its Urban Forestry program.
- The Singaporean National Parks Board also shared the city-state’s best practices when it comes to preserving urban biodiversity.

**Cities With Nature Action Platform Demonstration Webinar**

**Location**
- Southeast Asia

**Cities: Possibilities 2022 – The Road to Implementation**

**Location**
- Southeast Asia

A training workshop series for technical staff of ICLEI and local governments in Southeast Asia to enhance their capacities in setting and assessing science-based climate targets for cities.

**Key Highlights**
- 13 ICLEI Southeast Asia and ICLEI Indonesia staff and 77 technical staff from 36 local governments in the region were trained on setting and assessing science-based climate targets using the methodologies recognized by the Science-Based Targets Network.

**Cities Race to Zero (CRtZ) Training Workshops**

**Location**
- Southeast Asia

**Key Highlights**
- Presented the 100% RE building blocks as a method and tool for realizing renewable energy targets.
- Discussed how the building blocks served as guide for Indonesia’s West Nusa Tengara Province in developing roadmaps and identifying various strategies to achieve their 100% RE target.

**Cities: Possibilities forum**

Held in the week before COP27, this edition of Cities: Possibilities forum focused on the practical “how” to fulfil net-zero pledges, and investigating what cities can implement for better, faster, and more effective climate initiatives.

**Key Highlights**
- ICLEI Southeast Asia served as one of the event’s outreach partners, helping promote the event across its network of member cities, partner cities, and other development partners.
- ICLEI Southeast Asia’s brand mark was prominently displayed across various conference materials, backdrops, and collaterals.

**Climathon Pasig 2022**

**Location**
- Philippines

**Key Highlights**
- Scale Solutions, the organizer behind Pasig Climathon, an ideathon where the public and private sectors come together to tackle climate solutions, invited ICLEI SEA to deliver a recorded presentation about renewable energy solutions.
Engaging Youth in Climate Action: Pragmatically Moving Forward

The webinar brought together local government representatives, youth representatives, and experts on youth engagement to share their experiences, best practices, and practical steps that every city should take to ensure their meaningful youth participation.

Key Highlights
- Over 100 participants from local governments, NGOs, academe, and international organizations attended.
- Panelists unanimously agreed that young people can make a difference and should be enabled to participate in decision making.
- Panelists also highlighted that education on climate science and environmental policy is critical to ensure youth’s meaningful engagement with suitable policy instruments.

Location
- Indonesia

Partners: Bandung City Government

From Ridge to Reef: Climate Stories from the Philippines

This was a panel discussion showcasing the nuances, similarities, and differences in climate issues faced by communities from upland to coastal areas. It was organized by the Ateneo Institute of Sustainability for the Santa Clara University’s tURN Climate Action Conference.

Key Highlights
- Approximately 104 student participants joined the panel discussion.
- Pamela Cabacungan, ICLEI SEA LEDS Manager, shared how select Philippine cities contribute to and are impacted by climate change. She stressed the importance of relating climate change into the urban development challenges and opportunities as well as in banking on the local knowledge and real experiences of urban communities to arrive at meaningful and impactful solutions.

Partners: Ateneo Institute of Sustainability, Strengthening University-Enterprise Collaboration for Resilient Communities in Asia (SECCA), Santa Clara University, California

GCoM National Workshop on Climate Change Mitigation, Adaptation, and Climate Finance

A three-day training workshop on climate change mitigation, adaptation and finance organized by GCoM Asia Secretariat to assist GCoM committed cities in Malaysia in fulfilling their climate commitments.

Key Highlights
- Over 40 Malaysian local government representatives participated.
- Pamela Cabacungan, ICLEI SEA LEDS Manager, joined a panel discussion on how local governments may access available public and private finance to implement climate actions.
- Cabacungan introduced the Transformative Actions Programme (TAP), a project preparation facility managed by ICLEI.

Location
- Malaysia

Partners: Global Covenant for Mayors for Climate & Energy (GCoM) Asia Secretariat

International Conference on Innovation, Technology Transfer and Cooperation for Addressing Climate Change

This international conference was organized to explore and learn from good practices in scaling up innovative technologies on renewable energy, low carbon transport, and disaster risk reduction, including 4IR technologies for building sustainable cities.

Key Highlights
- Over 170 participants involved in urban governance, innovations, and technologies related to climate change mitigation and adaptation attended.
- Mary Jane Alvarez, ICLEI SEAS Regional Program Manager, served as a resource person to share the insights of several cities and municipalities in adopting emerging technologies and innovating according to their unique contexts.
- The Conference produced a report which contains highlights of the discussions and recommendations for the Asian and Pacific Centre for Transfer of Technology.

Location
- Thailand

Partners: Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
The webinar discussed fundamental circular economy (CE) policies, frameworks, best practices, and principles applicable in the country, including a national action plan and a newly-enacted law for waste producers.

**Location**
- Philippines

**Key Highlights**
- Virtually convened over 1,000 representatives from local and national governments, academia, the private sector, and civil society organizations.
- Tackled the Extended Producer Responsibility (EPR) Act of 2022, the first amendment to the Philippine Ecological Solid Waste Management Act of 2000 (RA 9003) and introduced the Philippine Action Plan for Sustainable Consumption and Production.

DKI Jakarta, through the province's Environment Agency (DLH), conducted a public launch of its latest Emissions Inventory and Greenhouse Emissions Report.

**Locations**
- Jakarta City, Indonesia

**Key Highlights**
- DKI Jakarta will optimize the use of and rely more on renewable energy and continuously push towards its net-zero commitment by prioritizing the power sector for transportation and industry needs in the coming year.
- This report is expected to provide relevant information and current data to inform climate change mitigation and adaptation efforts on the road to reaching net-zero emission by 2050.

The two-day 2022 World Clean Energy Conference in Indonesia gathered energy sector stakeholders and presented the clean energy technologies, policies, and best practices that are currently transforming Indonesia’s energy landscape.

**Location**
- Jakarta City, Indonesia

**Key Highlights**
- Served as an outreach partner, promoting the event across the ICLEI SEA network.
- ICLEI SEAs brand mark was prominently displayed in the conference materials.
- Over 300 public and private sector organizations, including government bodies, energy companies, project owners, investors, contractors, solution providers, and non-government and civil society organizations, were represented in the conference.
- Representatives from ICLEI Indonesia attended the network and learn from the conference speakers.

Stakeholders from Bogor’s waste banks and food business sectors learned about BSFs, their life cycle, how to use them in waste processing, their co-benefits, and best BSF composting practices from Bogor’s waste processing facilities.

**Location**
- Bogor City, Indonesia

**Key Highlights**
- 20 representatives from Bogor’s waste banks and food business sectors were trained.
- Bogor hopes to replicate this BSF initiative at its other TPS 3R and waste bank locations.

The webinar discussed fundamental circular economy (CE) policies, frameworks, best practices, and principles applicable in the country, including a national action plan and a newly-enacted law for waste producers.

**Location**
- Bogor City, Indonesia

**Key Highlights**
- 20 representatives from Bogor’s waste banks and food business sectors were trained.
- Bogor hopes to replicate this BSF initiative at its other TPS 3R and waste bank locations.
FEATURED LOCAL SUSTAINABLE DEVELOPMENT STORIES
How this small Philippine beach town went from mangrove cutting capital to country’s largest mangrove forest

In 2010, the Municipality of Del Carmen’s Mangrove Forest was almost considered as the illegal mangrove cutting capital of the Philippines. Now, the small town in the Southern Philippines has one of the largest contiguous blocks of mangrove forests in the country. Not only did Del Carmen’s conservation program save its local ecosystem, it also brought its people out of poverty.

Del Carmen is a 5th Class municipality located in the island of Siargao in the Pacific Ocean. Over 20,000 people permanently call this municipality their home, with an average of over 200,000 local and foreign tourists each year also temporarily lodging in Del Carmen. Besides tourism, the town’s economy is founded upon agriculture and fishing.

Due to its geographic location, Del Carmen is highly vulnerable to typhoons, storm surges, sea level rise, and other effects of climate change. In fact, it is visited by up to 4-6 typhoons annually. Strong winds, rains, and waves are so commonly experienced—especially during the tail ends of the year—that locals call them part of normal life.

Though Del Carmen is challenged by limited resources, the town continues to persevere, innovate, and rely on science- and nature-based adaptation efforts to ensure that it is climate change ready. Its Mangrove Management Program is a prime example of how environmental restoration and conservation can benefit both ecosystems and humans.

From mangrove cutting to mangrove planting capital

In 2010, the Del Carmen Mangrove Forest was almost considered as the illegal mangrove cutting capital of the Philippines. It was normal for people to cut mangrove wood for use as cooking and baking fuel. This was for a number of reasons, including poverty and not understanding the value of mangroves. They did not realize the long-term impacts of what they were doing—that without the mangroves, they are more vulnerable to loss of biodiversity and loss of livelihood, among other climate impacts.

Now, Del Carmen has one of the largest contiguous blocks of mangrove forests in the country. It currently spans over 4,800 hectares, with 27 various mangrove species and a rich ecosystem both above and below the water. Over the past decade, the town has planted over 600 hectares of mangroves which have an 80% survival rate thanks to the use of coconut husks to nurture and acclimate its locally-grown mangrove seedlings.

However, Del Carmen’s mangrove reforestation journey was not without its challenges. Just as typhoons were part of normal life in the town, so too was mangrove cutting. The local government, led by current Mayor Alfredo Coro II, faced various hurdles at the beginning and throughout the transition. For many residents, this livelihood—although illegal and damaging to the environment—was all they knew. Understandably, they were fiercely resistant about changing the status quo.

Changing hearts through evidence-based benefits and people empowerment

Del Carmen began its restoration efforts by first understanding the root causes of the issues facing the people and the mangrove forest. These insights led to the development of a holistic management plan that banks on science and data to simultaneously save the mangroves and uplift the peoples’ lives. Biodiversity; fish stocks; site conditions; mangrove seedling survival and growth rate; and poverty rate and hunger incidence—these were just some of the indicators assessed and routinely monitored to ensure the program was on the right track.

Specifically, Del Carmen experienced a 200% catch increase for near-shore fishers and reduced poverty incidence by 32%.

Besides guiding the local government on where and how to start, these data were integral to communicating with Del Carmen’s citizens the story of how they are directly affected by the loss of mangroves. These data points were also used as the backbone for Del Carmen’s various information, education, and communication activities, including house-to-house visitation along the mangrove forest corridor and classroom discussions at all education levels.
Sumbawa Regency citizens in Indonesia’s West Nusa Tenggara (WNT) Province still rely heavily on kerosene for their cooking fuel needs. However, a surprising, more eco-friendly alternative is on the rise—biogas from cow dung. Throughout the regency, livestock-based communities are turning their cows’ byproduct into a valuable source of energy and supplemental income.

Ultimately, however, Del Carmen’s goal was to change its people’s behavior, fortify their values, and empower them. Capacity building and community organizing activities were regularly held to transition illegal loggers into eco-tourism guides, boat operators, fishermen, and forest caretakers. In fact, the illegal loggers from before are now Del Carmen’s main partners in its Mangrove Management Program.

Del Carmen focused on saving the environment, but the co-benefits also spilled over to its constituents’ lives. So much so that they have taken full ownership of the program. The government rarely intervenes now; it is the citizens themselves who grow the seedlings, plant the mangroves, and upkeep the mangrove forests.

Del Carmen’s message to the world

But unfortunately, there’s only so much a single municipality, or city, or even a single country can do against climate change. “Our recent experience with Typhoon Rai just this past December 2021 is a testament to the fact that there needs to be concerted effort from everyone,” said Mayor Coro.

Rai was a Category 5 Super Typhoon unlike anything Del Carmen has experienced before, bringing with it intense rainfall and 195 kilometer per hour winds. The town’s mangrove forest was put to the test as it was ground zero for the typhoon’s landfall. While the mangroves were able to dampen the storm surges enough to prevent the wipeout of coastal settlements, the impact of waves and winds was still felt inland.

Waters were able to carry passenger boats above the ports. 6,724 families lost their livelihoods as farms were flooded and fishing boats were capsized. 100% of the town’s private and public infrastructures were damaged. 4,942 homes were lost. The impact to humans, the built environment, and the natural environment would have been much worse without the mangrove forest.

“Del Carmen was left in ruins. Right now, a few months after the typhoon, we are still undergoing recovery and rehabilitation. And we only expect the typhoons to get stronger and stronger each year. Such is the effect of the world’s climate crisis,” Mayor Coro explained.

“On behalf of Del Carmen, I call on local governments throughout the Philippines, throughout Southeast Asia, and throughout the world. We must act now and we must act together if we are to keep global warming in check, if we are to fulfill the Paris Agreement, and if we are to save this planet. Only by taking this sustainability journey together can we ensure that urban development is fair and equal for all the cities and citizens of the world,” concluded Mayor Coro.
Sumbawa Regency is the largest of the ten regencies and cities of WNT, having a total area of 6,643.98 km², a 2020 population estimate of 509,753, and a population density of 77 people per square kilometer.

As a whole, WNT is one of the largest beef producers in Indonesia and its largest cattle barn can be found in Sumbawa. As of 2019, the regency has over 257,000 cows, almost 40,000 goats, over 18,500 horses, over 11,000 pigs, and over 900 sheep.

This number of livestock unfortunately leads to various problems. Globally, livestock production produces 18% of GHG emissions in the form of methane and nitrous oxide. Locally, Sumbawa Regency's rivers are experiencing declining water quality as livestock dung pollutes in-land waterways. This is detrimental to the quality of life of many regency citizens who still rely on river water for bathing, washing, drinking, and cooking.

Livestock manure must therefore be rerouted into other, more sustainable ways of disposal. Converting animal dung into biogas is one such avenue that presents a tremendous opportunity for Sumbawa Regency. Aside from reducing the potential for air and water pollution, animal waste management can also provide various co-benefits for Sumbawa’s communities.

Renewable energy efforts from the grassroots

Solihin is committed to seeing the potential of biogas in Sumbawa. In his opinion, cow dung should be developed as it has economic value.

“This reduces the potential for pollution and can also be used as an alternative cooking fuel while the remaining cow dung can be composted,” said Solihin.

Solihin continued that fertilizer is essential for agricultural activities in order to maintain soil fertility and produce abundant harvests.

In 2012, he participated in a training program conducted by the provincial government to develop methods of using cow, buffalo, and horse dung as alternative fuels. As time passed, Solihin became engaged in activities that aimed to educate and assist communities in using cow dung as a substitute cooking fuel.

It was in 2021 that Solihin began organizing as many as 14 households in RT 02 RW 01, Brang Biji Village, Sumbawa District. Each of the 14 households owns anywhere between three and twelve cows. The provincial governments of WNT and Sumbawa provided financial assistance to support the construction of an initial biogas facility within the community. Solihin educated the community members, supervised the process, and provided assistance with the operations of the facility. As of December 2021, the community has been operating a total of 14 biogas facilities.

One household in a rural area of Sumbawa consumes approximately 1-2 kilograms of cooking fuel per day, which in turn can be produced from the manure of three cows each day. Any excess biogas can be converted into electrical energy for the household’s lighting needs. As such, a household with more than three cows should have enough biogas fuel for both their cooking and illumination.

With the shortage and resulting price increases of kerosene due to government actions to promote the use of clean and renewable energy, this alternative energy source has been invaluable for Solihin’s community.

“The cost of kerosene is quite high, if there is kerosene available,” said Solihin.

Residual wastes from the biocconversion process can be used to produce compost and liquid fertilizer. Sumbawa and other provinces outside of the WNT Province, such as Bali, have a large market for both types of fertilizers.

Biogas teems with co-benefits

Before using biogas, the community used to budget at least IDR 300,000 (around USD 20) per month for kerosene fuel. In transitioning to renewable energy, the community is able to meet its daily cooking fuel needs at little to no cost, while also reducing its lighting bill.

The economic co-benefits of converting cow dung into biogas is made more prevalent through the organic fertilizer residue of the biocconversion process. 40kg of this fertilizer type can be sold for IDR 10,000 (around USD 0.60) after it is mixed with other supporting compounds. A small-scale operation with just three cows can produce as much as 140kg of organic fertilizer each month, allowing households to supplement their income with approximately IDR 40,000 (USD 2.5) per month.

Provincial commitment to 100% renewable energy

Sumbawa Regent Drs. H. Mahmud Abdullah commended these efforts to utilize the abundant livestock manure for the production of biogas as it is a foundational step towards achieving net zero emissions in the province by 2050.

Since 2019, the WNT Provincial Government, in collaboration with 10 regencies and cities, including Sumbawa Regency, has been developing a vision and roadmap for achieving 100% renewable energy in the province.

The province hopes to replicate Sumbawa’s biogas production efforts in other localities with high livestock populations.
PUBLICATIONS, CASE STUDIES, AND RESEARCH WORK
ICLEI Indonesia completed a study on urban fuel stacking in Mataram City and Sumbawa Regency, Indonesia, helping analyze the factors driving cooking fuel choices in both areas.

Scan the QR code or go to https://bit.ly/212ZICLEISEAARPubMECS to access.

Mainstreaming Urban Agriculture for Climate Change Adaptation in the Philippines: A Policy Guidebook

This document provides the policy context and perspectives in mainstreaming urban agriculture, particularly the entry points in the different stages of the local climate change action plan and the comprehensive land use plan.

Scan the QR code or go to https://bit.ly/212ZICLEISEAARPubSEARCA to access.

Local Energy Efficiency and Conservation Planning (LEECP) Guidebook

The LEECP Guidebook aims to institutionalize energy efficiency and conservation (EEC) in Philippine local governments, promote the efficient use of energy, and integrate EEC into the sustainable local development agenda.

Scan the QR code or go to https://bit.ly/212ZICLEISEAARPubLEECP to access.

UrbanShift Annual Report 2021-2022

This annual report marks UrbanShift’s first year of action under GEF-7 and highlights the progress made by engaging an additional cohort of 23 cities in Argentina, Brazil, Costa Rica, Morocco, Rwanda, Sierra Leone, India, China, and Indonesia.

Scan the QR code or go to https://bit.ly/212ZICLEISEAARPubUrbanShift to access.

West Nusa Tenggara Energy Modelling Report

The modelling results for the Indonesian Province of West Nusa Tenggara’s energy system are presented here.

Scan the QR code or go to https://bit.ly/212ZICLEISEAARPubWNT to access.
CLIMATE ACTION TOOLS AND PLATFORMS
**100% RE Building Blocks**

This guide is applicable across jurisdictions with various geographical, political, cultural, and socioeconomic conditions, providing guidance for the creation of 100% RE roadmaps.

For more information, visit [iclei.org](http://iclei.org)

---

**Asia LEDS Partnership**

The ALP aims to advance the development of country-led and country-specific strategic plans to promote economic growth while reducing GHG emissions without causing trade-offs to other environmental pressures in the Asia region.

For more information, visit [asialedspartnership.org](http://asialedspartnership.org)

---

**Asia Pacific Adaptation Network**

ICLEI SEAS serves as the APAN sub-regional node, actively working with national and local governments throughout the region for climate change adaptation.

For more information, visit [asiapacificadapt.net](http://asiapacificadapt.net)

---

**Building Efficiency Accelerator**

Under BEA, ICLEI focuses on the development of guidance, capacity building and offering tailored support to local and subnational governments to assess priorities, implement and track actions, and exchange lessons learned.

For more information, visit [buildingefficiencyaccelerator.org](http://buildingefficiencyaccelerator.org)

---

**carbonn Climate Registry**

Managed by ICLEI, the ccr is a voluntary and public reporting platform for local and other subnational governments, enabling entities to report and monitor climate and energy commitments, GHG emissions performance, as well as climate change mitigation and adaptation actions.

For more information, visit [carbonn.org](http://carbonn.org)

---

**CDP-ICLEI Track**

Formerly the CDP-ICLEI Unified Reporting System, Track offers an online and free-of-charge reporting platform for cities globally, providing comprehensive guidance on data points to be reported by cities in a simplified questionnaire form. CDP and ICLEI also offer direct assistance to cities in their reporting journey.

For more information, visit [cdp.net](http://cdp.net)

---

**CitiesWithNature**

CWN is a global platform for cities and other subnational governments, their communities, and experts to connect, share and learn from each other in mainstreaming nature into cities in ways that benefit both people and nature.

For more information, visit [citieswithnature.org](http://citieswithnature.org)

---

**CITYFOOD Network**

The ICLEI-RUAFCITYFOOD Network aims to accelerate local and regional government action on sustainable and resilient city-region food systems by combining networking with training, policy guidance and technical expertise.

For more information, visit [iclei.org](http://iclei.org)

---

**Managed by ICLEI, the ccr is a voluntary and public reporting platform for local and other subnational governments, enabling entities to report and monitor climate and energy commitments, GHG emissions performance, as well as climate change mitigation and adaptation actions.**

For more information, visit [carbonn.org](http://carbonn.org)
The GCC Program offers cities a proven process methodology for walking step-by-step toward climate neutrality. This methodology and its Measuring, Reporting and Verification framework were tested by the cities engaged in the Urban-LEDS project.

For more information, visit iceli.org

**Cities Race to Resilience**
The Cities Race to Resilience aims to catalyze a step-change in global ambition for climate resilience, aiming to strengthen the resilience of 4 billion people in vulnerable communities by the year 2030. Race to Resilience is the sibling campaign to the global Race to Zero.

For more information, visit citiesracetoresilience.org

**Cities Race to Zero**
The Cities Race to Zero aims to build momentum around the shift to a decarbonize economy and send a resounding signal to governments who are expected to strengthen their contributions to the Paris Agreement.

For more information, visit c40.org

**ecoBUDGET**
Developed by ICLEI Europe, the tool lists five steps which can link environmental sustainability goals to other social issues such as poverty alleviation and economic stability.

For more information, visit webcentre.ecobudget.org

**EcoMobility SHIFT**
A methodology designed for cities to measure the performance in urban mobility and make informed decisions based on the areas that need improvement.

For more information, visit sustainablemobility.iclei.org

**Ganbatte**
Developed by Circle Economy in collaboration with ICLEI, Ganbatte offers data insights into cities' sectoral consumption, emissions, and employment for more than 6,000 cities worldwide and provides them with the knowledge and tools to start their circular journey.

For more information, visit ganbatte.world

**GHG Protocol for Cities**
The Global Protocol for Community-Scale Greenhouse Gas Inventories (GPC) offers cities and local governments a robust, transparent, and globally accepted framework to consistently identify, calculate, and report on city greenhouse gas emissions.

For more information, visit ghgprotocol.org

**GPC Guidance for Forests & Trees**
This supplemental guidance to the GPC provides methods that communities can follow to estimate both GHG emissions from land-use change and other forest disturbances and carbon dioxide removals by forests and trees within their borders.

For more information, visit ghgprotocol.org

**GreenClimateCities**
The GCC Program offers cities a proven process methodology for walking step-by-step toward climate neutrality. This methodology and its Measuring, Reporting and Verification framework were tested by the cities engaged in the Urban-LEDS project.

For more information, visit iceli.org
ICLEI - ACCCRN Process

Developed by ICLEI with support from the Rockefeller Foundation, it enables local governments to assess their climate risks in the context of urbanization, poverty, and vulnerability and to, eventually, formulate and prioritize corresponding resilience strategies.

For more information, visit acccrn.net

SBTs: A Guide for Cities

The guide assesses and explains three science-based climate target (SBT) methodologies and their technical criteria. It advises cities on which methodology to use and how to use the methodologies to determine interim and net zero targets.

For more information, visit sciencebasedtargetsnetwork.org

Solutions Gateway

An online platform where local governments can find low emission development solutions that they can apply to their cities or municipalities. The gateway houses sectoral and cross-sectoral packages of activities that aim to support cities in the development of low-emission strategies, plans, and projects.

For more information, visit solutions-gateway.org

Transformative Actions Program

TAP serves as a project preparation facility that enables local governments to access a network of partners that offer support services to increase visibility and better position them to access climate finance.

For more information, visit tap-potential.org
### Key Financial Figures for 2022

#### Receipts
- **Total Receipts:** PHP 41.63-million (rounded; approximately USD 0.75-million as of 24 May 2023)

#### Expenses
- **Total Expenses:** PHP 33.69-million (rounded; approximately USD 0.60-million as of 24 May 2023)

#### Financial Position
- **Total Assets:** PHP 57.96-million (rounded; approximately USD 1.04-million as of 24 May 2023)
- **Fund Balance:** PHP 51.58-million
- **Liabilities:** PHP 6.38-million

#### Donations & Grants: PHP 39.26-million
- **Grants:** PHP 29.71-million
- **Other Income:** PHP 2.02-million
- **Membership Fees:** PHP 0.35-million

---

### Human Resources

#### ICLEI Southeast Asia Secretariat
- **Victorino Aquitania** | Regional Director
- **Mary Jane Alvarez** | Regional Program Manager
- **Zenaida Ranario-Tagolino** | Operations Manager
- **Pamela Cabacungan** | Low Emission Development Strategies Manager
- **Ricardo Marfiga, Jr.** | Senior Project Officer for Membership, Governance, Partnerships, and Special Projects
- **Jose Bernardo Gochoco III, EnP** | Senior Project Officer
- **Kristianne Jemi Santos** | Project Officer
- **Katrina Elaine Toliongo** | Project Officer
- **James Anthony Omiña** | Project Assistant (new)
- **Chris Noel Hidalgo** | Communications Officer
- **Jenie Guinto Darang** | Accountant
- **Jennifer Maducdoc** | Accounting Assistant
- **Edgar Allan Wirata** | Administration and Finance Assistant
- **Ronwaldo Olivo** | Finance Coordinator

#### ICLEI Indonesia Office
- **Arif Wibowo** | Country Manager (new)
- **Selamet Daroyni** | Senior Project Officer
- **Nisa Nidasari** | Project Officer
- **Siti Koiromah** | Project Officer – 100% Renewable Energy (new)
- **Yustisia Rahman** | Project Officer – Urban Article 6 of the Paris Agreement in Indonesia (new)
- **Suryani Amin** | National Coordinator for UrbanShift
- **Sumardi “Aree” Ariansyah** | Project Assistant – Safe and Sound Cities (S²Cities) Programme (new)
- **Juniarti Elisabeth Sinaa** | Membership and Communications Officer (new)
- **Hikmatul Pasaribu** | Finance and Operations Officer
- **Marwan** | Administrative Assistant

---

### We wish the former Secretariat and Indonesia staff below all the best in their future endeavors!

- **Alfredo Bernarte, Jr.**
- **Anna Dominique Ortiz**
- **Kenneth Bernard Hizon, EnP**
- **Russel James Andrade**
- **Ari Mochamad**
- **Rika Lumban Gaol**

- **Happy Tiara Asvita**
- **Koen Setyawan**
- **Herdianti Indah Puspita**
- **Yheni Mulyaningsih**
- **Arifana Khairunnisa**
- **Nur Syahida Binti Raidine**
Units 3 to 6 Manila Observatory, Ateneo de Manila University,
Loyola Heights, Quezon City, 1108, Philippines

Phone: +632 8426 0851
Fax: +632 8426 0851
Email: iclei-sea@iclei.org

icleiseas.org
facebook.com/ICLEISEAS
twitter.com/ICLEISEAS
linkedin.com/company/ICLEISEAS