

U.S.-ASEAN Smart Cities Partnership

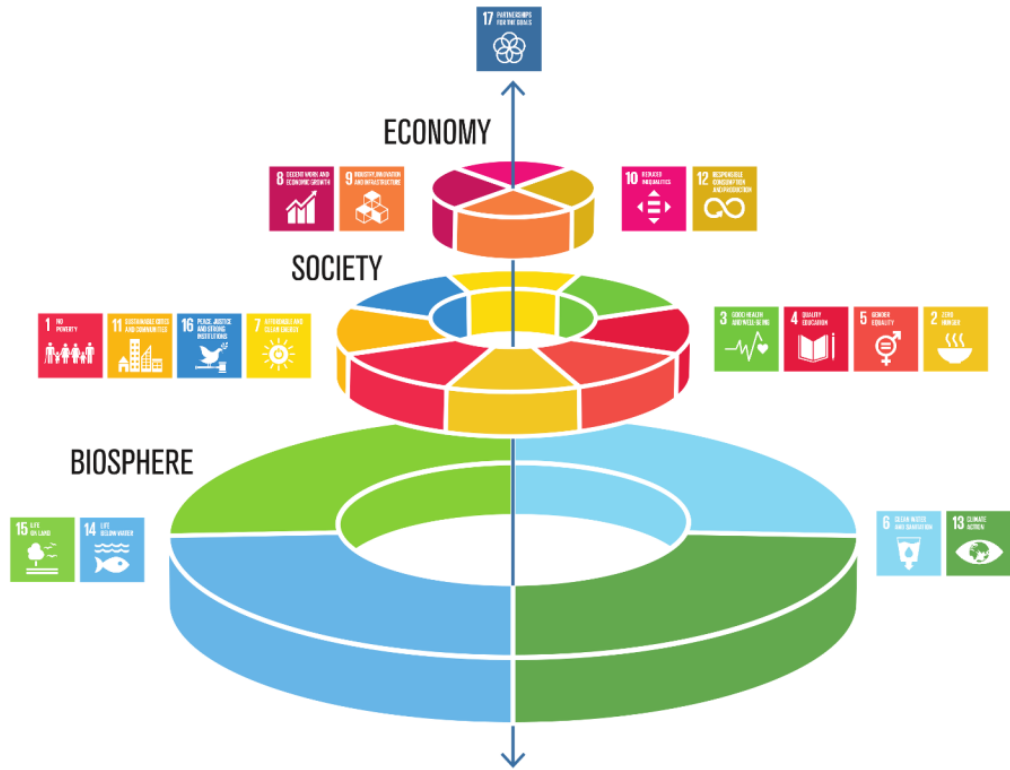
Promoting sustainable, resilient, and inclusive solutions to advance urban quality of life in Southeast Asian nations

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<https://www.usascp.org>

Smart Sustainable Cities



Connected/Integrated

Holistic & Equitable

Green/Biophilic

Resource Efficient & Circular

Sustainable & Resilient

Chattanooga Climate Action Plan

Highlighting the value of integrated master planning and development



Chattanooga in 1970 (above)

Chattanooga in 2015 (below)



- Energy Efficiency
- Education and Policy
- Healthy Communities
- Natural Resources



Indo-Pacific ASEAN Trends

- Urbanization
- Climate Change
- Biodiversity Loss
- Dam Construction
- Health Impacts
- Fourth Industrial Revolution



U.S. - ASEAN Smart Cities Partnership: Whole of Government Approach

- **\$10+ million portfolio** launched in 2018
- **20+ projects** with U.S. government agencies and implementing partners
- Projects address ASEAN urban challenges to improve quality of life through knowledge sharing, innovative industry practices, technical assistance, pilot projects and peer partnerships across urban sectors
- **Climate Action and Finance:** Provide seed capital and mentoring to catalyze sub-national climate actions through net-zero, innovative solutions for climate mitigation and urban adaptation and community resiliency
- **Green Economic Recovery:** Promote circular economy for increased resource efficiency and reuse to reinforce sustainability and resilience; facilitate professional exchanges for circular waste management
- **Private Sector Engagement:** Support reverse trade missions, technical/trade shows, and conferences with the Department of Commerce



Ten Pillars of USASCP Programming



Business Innovation Fund (BIF)



Climate finance for Net-zero urban innovation

Capitalization of \$1M USD



Department of Commerce:
International Trade Association



Phnom Pehn, Cambodia
Tangerang, Indonesia
Luang Prabang, Laos
Penang, Malaysia
Bataan, Philippines
Da Nang, Vietnam



Business Promotion & Cybersecurity



Business engagements and networking, reverse trade missions



Department of Commerce:
International Trade Association



ASEAN Region



Circular Waste Management



Professional exchange program



Department of State: Bureau of
Educational and Cultural Affairs

Center for Liveable Cities
(Singapore)



ASEAN Region



Green Buildings Innovation



Capacity building and site visits;
Building innovation education for
future architects, planners, and
engineers



- Government of Singapore
- Univ. of N. Carolina - Charlotte



ASEAN Region
University Partners
- Yogyakarta, Indonesia
- Bangkok, Thailand
- Ho Chi Minh City, Vietnam



Circular Entrepreneurship



E-waste material flow analysis,
circular entrepreneurship,
curriculum development and
training, hackathons



Rochester Institute of Technology



ASEAN Region



Integrated Urban Services (IUS)



Systems integration for resource
efficiency and reuse in the food,
energy and water sectors



Department of State/OES
National Renewable Energy
Laboratory



ASEAN Region (Peer Learning)
Pilot Cities:
- Iskandar, Malaysia
- Cagayan De Oro City, Philippines



Energy Modeling



Forecasting pathways towards
carbon neutrality in cities and
energy systems



Department of State: Bureau
of Energy Resources



Pacific Northwest
National Laboratory
Kuala Lumpur, Malaysia
Bangkok, Thailand



Research & Innovation



Urban Innovation



National Science Foundation
U.S.-ASEAN University Partners



Jakarta and Makassar, Indonesia
Kuala Lumpur, Malaysia
Manila, Philippines
Singapore
Thailand



Smart Sustainable Transport



Policy, planning and
technology solutions



Department of Transportation
U.S.-ASEAN City Partners



Jakarta – Los Angeles, CA
Johor Bahru – Portland, OR
Phnom Penh – Boston, MA
Phuket – Las Vegas, NE



Water Smart Engagements (WiSE)



Drinking water and
wastewater treatment



- Department of State: Office of
Conservation and Water
- Global Environment
& Technology Foundation
- Water Environment Federation



Cebu – Miami Dade, FL
Ho Chi Minh City – San Francisco, CA
Johor Bahru – Washington, DC
Phuket – Milwaukee, WI
Vientiane – Hillsboro, OR

Program Spotlights

Smart Cities Business Innovation Fund 2022 Awardees

Climate finance mechanism supporting sustainable net-zero solutions to urban challenges



Agroecology Garden for the Future

Phnom Penh, Cambodia

Establishes urban school gardens and provides ecology education curriculum to promote youth environmental stewardship



Biopac

Tangerang, Indonesia

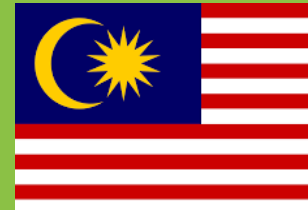
A women-led biodegradable seaweed packaging manufacturer that aims to reduce single-use plastic pollution



Patihoub

Luang Prabang, Laos

Shreds, presses, and molds recycled plastic into new products for school and construction materials



Greener Wheels

Penang, Malaysia

Develops a mobile climate application and 3-D printable hydrologic monitoring/early warning systems for rising sea levels and urban flooding



Kloudtech

Bataan, Philippines

Develops a mobile climate application and 3-D printable hydrologic monitoring/early warning systems for rising sea levels and urban flooding



Solar Panel Recycling Project

Da Nang, Vietnam

Seeks to improve reuse of panels and recycling of panel components using robotics and technology solutions

Circular Economy Initiatives

U.S. - Singapore Professional Exchange Program



Focus: Circular Waste Management

Study Tour: October 3-14, 2022

Location: Singapore & Washington D.C.

Rochester Institute of Technology



Focus: Circular Economy Entrepreneurship Education and Innovation

Partners: ASEAN Universities, business incubators and accelerators

Period of Performance: 2022-2024

U.S. - Japan E-Waste Initiative



Focus: Promote circular economy principles at sub-national/city scale

- Build local capacities to advance e-waste/electronics repurposing, recycling and recovery in select countries/cities in ASEAN
- Establish multi-sector partnerships and ecosystems

Research & Innovation: National Science Foundation Grants

**Kuala
Lumpur**
Malaysia

Renewable Energy Generation Pad

Piezoelectric Surface
Prototyped on Biking
and Pedestrian
Infrastructure

PRAIRIE VIE A&M UNIVERSITY
UNIVERSITY TENAGA
NATIONAL (UNITEN)

**Makassar
City**
Malaysia

Smart Garden Alleys

Micro-Climate
Data Collection
for Urban Planning
and Investment
Optimization

PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY OF COLORADO
VIRGINIA TECH
UNIVERSITAS GADJAH MADA
INSTITUT TEKNOLOGI BANDUNG

Jakarta
Manila
Singapore
Thailand

Digital/Gig Economy

Regional Big Data
Analysis of Air Pollution

UNIVERSITY OF WASHINGTON
NATIONAL UNIVERSITY OF SINGAPORE
UNIVERSITY OF THE PHILIPPINES

**Ho Chi
Minh City**
Vietnam

Transportation Planning

Crowd AI Sensing
Traffic Analysis and
Simulation

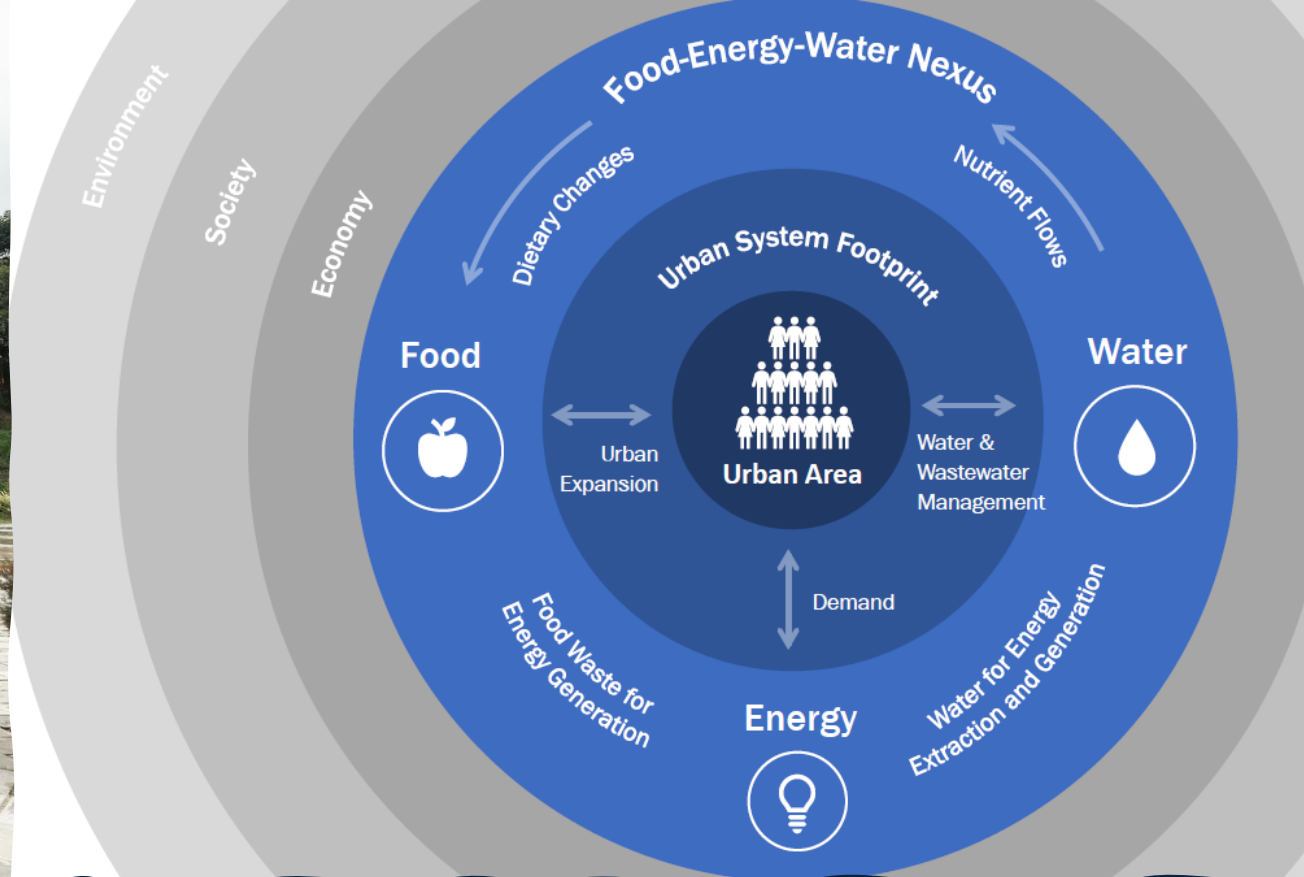
UNIVERSITY OF DAYTON
VIETNAM NATIONAL UNIVERSITY-
HO CHI MINH CITY

**Ho Chi
Minh City**
Vietnam

E-Government

Distributed Data-
Sharing and Decision
Application for Early
Warning of Urban
Flooding

UNIVERSITY OF VIRGINIA
VIETNAM NATIONAL UNIVERSITY-
HO CHI MINH CITY



Integrated Urban Services (IUS)

- Integrated Urban Services Program is helping ASEAN cities build **resilience** in their **energy, water, and food systems**
- Jointly implemented by the U.S. Department of State and the U.S. Department of Energy's National Renewable Energy Laboratory, this project aims to **promote systems integration** and **circular economy principles** for **resource recovery and reuse**
- Pilot projects in Cagayan de Oro, Philippines and Iskandar, Malaysia focus on agro-tech/modern urban agriculture

Thank You

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USASCP

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