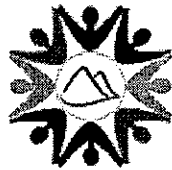


附件二

「國際環境夥伴會議」議程、文宣摺頁及簡報

Conference of the International Environmental Partnership



Networking and Continental Breakfast

8:30 – 9:30 am

1st IEP Conference

9:30 – 11:00 am

KEYNOTE

Minister Wei Kuo-Yen

Taiwan Environmental Protection Administration

HOST

Principal Deputy Assistant Administrator Jane Nishida

VENUE

Ronald Reagan Building and International Trade Center

Hemisphere Room A

PRESENTERS

United States Environmental Protection Agency, Taiwan Environmental Protection Administration, Mexico Ministry of Environment, National Wildlife Federation, North America Association for Environmental Education, Clean Air Asia, and National Atmospheric Deposition Program.

ABOUT THE IEP

The International Environmental Partnership (IEP) was launched in 2014 by the US EPA and the Taiwan EPA. IEP provides a global platform for cooperating in the field of environmental protection and sustainability. Since launched IEP projects have engaged with governments and experts from over three dozen locations including: Vietnam, Japan, Mongolia, India, Kenya, Philippines, Egypt, New Zealand, Brazil, Chile, Colombia, Laos, Malaysia, Singapore, Trinidad and Tobago, El Salvador, Sri Lanka, Argentina, France, Honduras, Kiribati, Myanmar, Nauru, Nepal, Nicaragua, Palau, Tuvalu. Together our network of experts is working to improve the environment and make an impact. We invite you to learn about this unique program and join the community.

附件 3 : First Conference of the International Environmental Partnership

Venue: Ronald Reagan Building and International Trade Center,
1300 Pennsylvania Ave NW, Washington DC 20004
Hemisphere Room A

August 10 (Monday), 2015

Networking and Continental Breakfast
8:30 – 9:30 am

The 1st IEP Conference
9:30 – 11:00 am

KEYNOTE

Minister Wei Kuo-Yen
Taiwan Environmental Protection Administration

HOST

Principal Deputy Assistant Administrator Jane Nishida
US Environmental Protection Agency

PRESENTERS

United States Environmental Protection Agency, Taiwan Environmental Protection Administration, Mexico Ministry of Environment, National Wildlife Federation, North America Association for Environmental Education, Clean Air Asia, and National Atmospheric Deposition Program

Time	Speaker	Project/Initiative	Level
9:45	Kyle Tsukahira, Program Manager Asian and Pacific Islander Obesity Prevention Alliance	Kids Making Sense	local/community
9:55	Kim Martinez, National Wildlife Federation	Eco-Campus Partnership	local/community
10:05	Glynda Bathan, Clean Air Asia	Cities Clean Air Partnership	cities
10:15	Andrew Chang, EPA Taiwan	partnership with EPA Taiwan to address contaminated sites in Indonesia	national
10:25	David Gay, National Atmospheric Deposition Program	Asia-Pacific Mercury Monitoring Partnership	regional
10:35	Frinee Robles, Ministry of Environment & Natural Resources of Mexico	International E-waste Management Network	Global
10:45	Judy Braus, President, North America Association for Environmental Education	Global Environmental Education Partnership	Global

ABOUT THE IEP

The International Environmental Partnership (IEP) was launched in 2014 by the US Environmental Protection Agency and the Taiwan Environmental Protection Administration. IEP provides a global platform for cooperating in the field of environmental protection and sustainability. Since launched IEP projects have engaged with governments and experts from over three dozen locations including: Vietnam, Japan, Mongolia, India, Kenya, Philippines, Egypt, New Zealand, Brazil, Chile, Colombia, Laos, Malaysia, Singapore, Trinidad and Tobago, El Salvador, Sri Lanka, Argentina, France, Honduras, Kiribati, Myanmar, Nauru, Nepal, Nicaragua, Palau, and Tuvalu. Together our network of experts is working to improve the environmental and make an impact. We invite you to learn about this unique program and join the community.



2015 IEP Conference Presenters' Biographies



Kyle Tsukahira

Program Manager, Asian and Pacific Islander Obesity Prevention Alliance

Kyle Tsukahira is the Program Manager for the Asian and Pacific Islander Obesity Prevention Alliance (APIOPA) which is a community based organization aimed at building healthier communities for Asian & Pacific Islander families in Los Angeles County. Kyle is currently leading APIOPA's "Roots Community Supported Agriculture (Roots CSA)" program which provides fresh, sustainably grown, and pesticide free produce to the community at an affordable rate, the "Bike to the Future (BTF)" program which engages local youth to critically analyze their built environment and how it impacts public health, and the "Particulates Matter (PM)" program which educates, engages, and empowers local high school youth about the impacts of air pollution and ways they can advocate for change in their communities. He holds a bachelor's degree in Asian and Asian American Studies from California State University, Los Angeles (CSULA).



apiopa



Kim Martinez

Senior Regional Education Manager, the National Wildlife Federation

Kim Martinez is the Senior Regional Education Manager for the National Wildlife Federation. Kim has worked for the National Wildlife Federation for four and a half years in its Mid-Atlantic Regional Center located in Annapolis, Maryland. Kim is responsible for deploying the NWF Eco-Schools USA program in the Mid-Atlantic region which serves approximately 1,000 registered schools regionally.

Before coming to NWF, Kim was Administrator of Professional Development for new teacher induction and teacher mentoring programs in the Center for Teacher Innovation at the Riverside County Office of Education in California. Additionally, she was an instructor in the School of Education at the University of California, Riverside. Prior to becoming a program administrator, Kim was a K-6 classroom teacher and a school site administrator in Menifee, California. Kim graduated from the University of California, Riverside with a BA in Psychology and a California teaching credential. In 2002, she received her Masters of Education Administration from Azusa Pacific University. In addition, Kim holds a Maryland Advanced Professional Certificate for Administrator I and Elementary 1.





2015 IEP Conference Presenters' Biographies



Glynda Bathan

Deputy Executive Director of Clean Air Asia

Glynda Bathan is the Deputy Executive Director of Clean Air Asia. A lawyer with more than 16 years of experience in the environment sector, she leads teams in assisting national and city governments develop and implement environment policies and roadmaps through Clean Air Asia's four programs – Air Quality and Climate Change, Low Emissions Urban Development, Clean Fuels and Vehicles, and Green Freight and Logistics, the most significant being the Roadmap for Cleaner Fuels and Vehicles in Asia, Euro 4 vehicle emission standards and low sulfur fuel policies in the Philippines and Vietnam.



**CLEAN AIR
ASIA**



Dr. Chih-Wei Andrew Chang

*Senior Environmental Technical Specialist,
Soil and Groundwater Remediation Fund Management Board, EPA Taiwan*

Dr. Chihwei Andrew Chang is currently the senior environmental technical specialist of the Soil and Groundwater Remediation Fund Management Board at Taiwan EPA.

He received his Ph. D. in Marine, Estuarine, and Environmental Science Program, with a concentration in simulation the fate and trophic transfer of organic contaminated in an urban estuary from the University of Maryland at College Park in 2008. He also holds a one year post-doc experience at University of Washington Center for Urban Waters.

Dr. Chang joined Taiwan EPA in 2009. He is a specialist in watershed management assessment and planning (TMDLs), contaminated sediment management, and marine and river pollution emergency response.



David A. Gay



2015 IEP Conference Presenters' Biographies



David A. Gay

*Coordinator, National Atmospheric Deposition Program /
Research Scientist, University of Illinois-Urbana Champaign*

David Gay is currently the Coordinator of the National Atmospheric Deposition Program and a Research Scientist at the University of Illinois-Urbana Champaign. He is part of the Prairie Research Institute and the Illinois State Water Survey.

He received his Ph. D. in Environmental Sciences, with a concentration in climatology of air pollution from the University of Virginia in 1996. He also holds a Master of Science in Environmental Sciences from Washington State University (1987), and a Bachelor of Science in Environmental Sciences from McNeese State University (1985).

He has worked in the air quality and environmental sciences area for over 30 years including previous positions with a consulting engineering firm (CH2M Hill, Inc.), on the faculty at the University of North Carolina - Charlotte, and as a self-employed business owner. He has also taught many environmental and atmospheric science classes. He currently conducts research in the areas of environmental deposition of mercury and ammonium, and is the author of over 30 journal articles.



Frineé Kathia Cano Robles

*Director, Department of Monitoring and Evaluation of Chemicals Environment,
National Institute of Ecology and Climate Change of Mexico*

She earned her B.Sc. in Chemical Engineering and Systems at the Technological Institute of Advanced Studies of Monterrey, in Monterrey, Nuevo León, Mexico. She graduated from a master's degree on chemical engineering from the Università Ca' Foscari of Venice, Italy on Management and Treatment of Urban and Industrial Wastewater. She has developed implementation projects using nanomaterials for wastewater treatment of refining process for Petroleos Mexicanos (PEMEX). She currently serves as Head of the Department of Monitoring and Evaluation of Chemicals in the Environment at the National Institute of Ecology and Climate Change of Mexico, as a part of the Ministry of Environment and Natural Resources (SEMARNAT). Its main functions include the development of applied research projects on electronic waste and chemical substances, which mainly are used for the development of environmental public policy; she participates in the development and updating of Mexican standards, and is part of international working groups such as the International Electronics Management Network (since 2014), and the Commission for Environmental Cooperation of North America (since 2009).





2015 IEP Conference Presenters' Biographies



Judy Braus

Executive Director, North American Association for Environmental Education

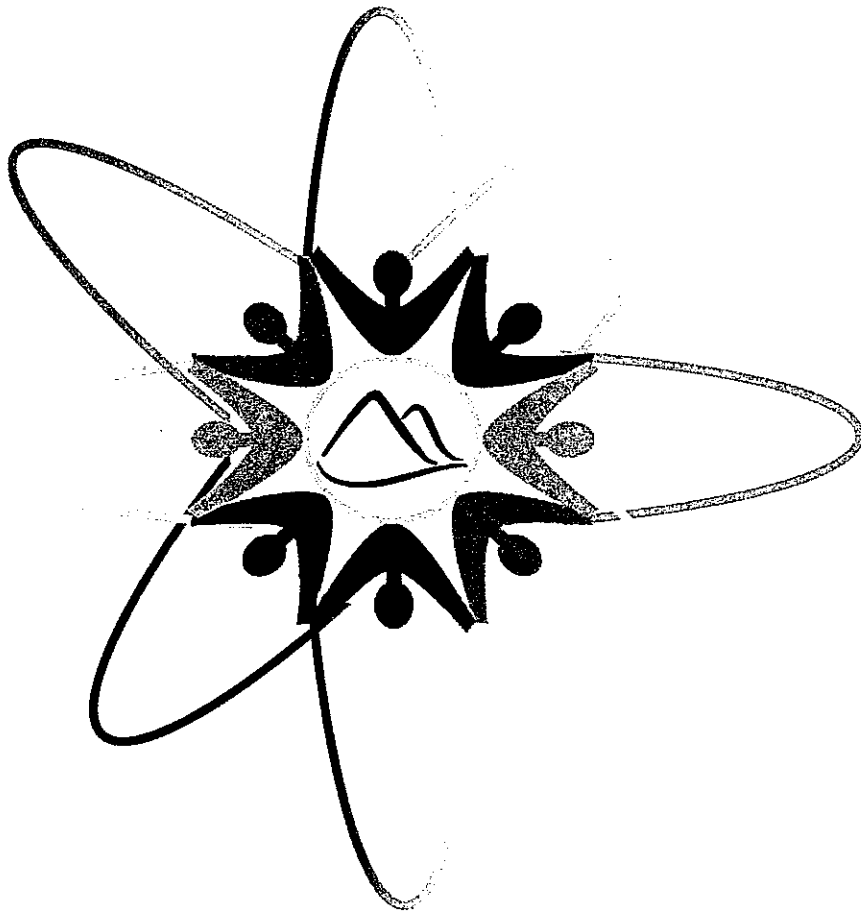
Judy Braus has been actively involved in national and international environmental education efforts for almost three decades. She is currently the Executive Director of the North American Association for Environmental Education (NAAEE), a non-profit organization dedicated to advancing environmental literacy and civic engagement. Prior to NAAEE, she successfully managed the education and outreach departments at three national and international conservation organizations: the National Audubon Society, World Wildlife Fund, and the National Wildlife Federation. She was also the manager of environmental education programming at the U.S. Peace Corps. She has led many international environmental education projects, facilitated leadership workshops and conferences in dozens of countries, been the chief editor of several successful national publishing efforts focused on environmental education, and published in numerous nationally recognized periodicals and books. Her areas of expertise include environmental education, project management and strategic planning, leadership training and facilitation, conservation planning, writing and publishing, curriculum and web development, fundraising, and evaluation.



naaee

North American Association
for Environmental Education

International Environmental Partnership



In 2014, the U.S. EPA and EPA Taiwan officially launched the International Environmental Partnership (IEP), a network of experts from around the world working together to strengthen capacity for addressing environmental challenges. Through IEP, global experts address common priorities such as climate change, environmental education, electronic waste management, air pollution, mercury monitoring, and contaminated soil and groundwater.

To date, the key IEP projects include:



Cities
Clean
Air
Partnership



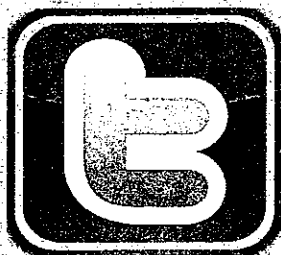
Eco-Campus
Partnership
Program



Asia Pacific Mercury
Monitoring Network

Geep Global Environmental
Education Partnership

IEMN International E-Waste
Management Network



Follow Us
#iep2015

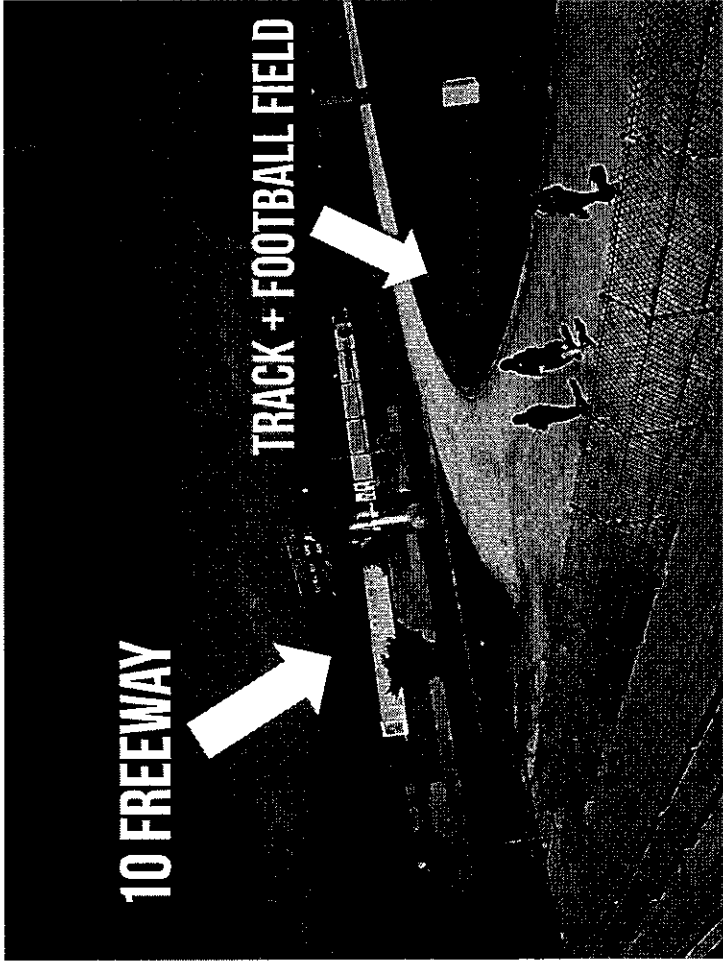
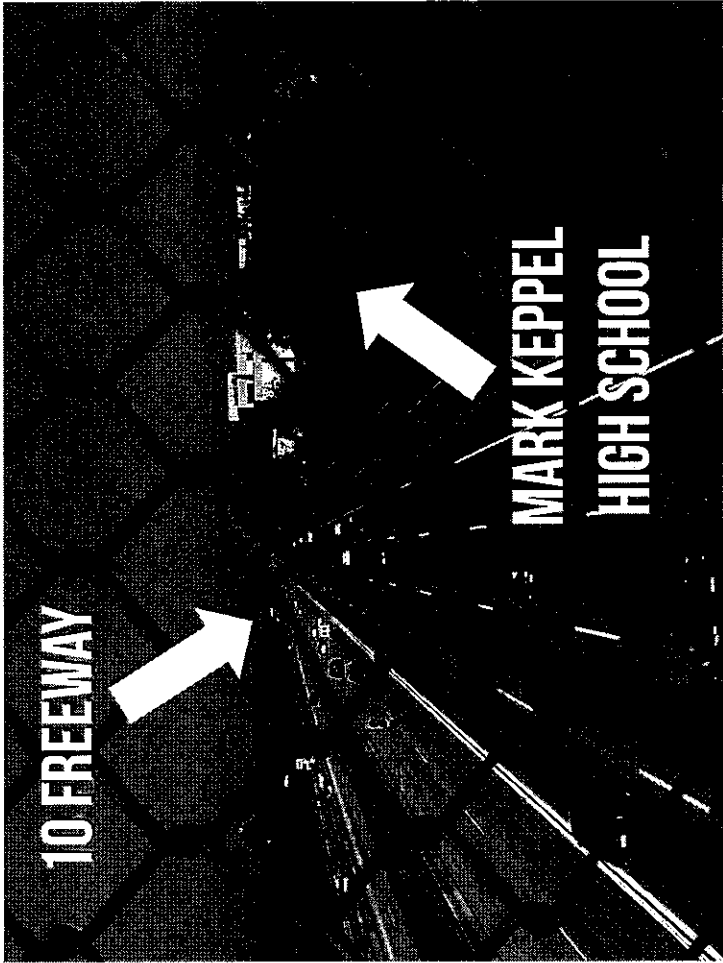
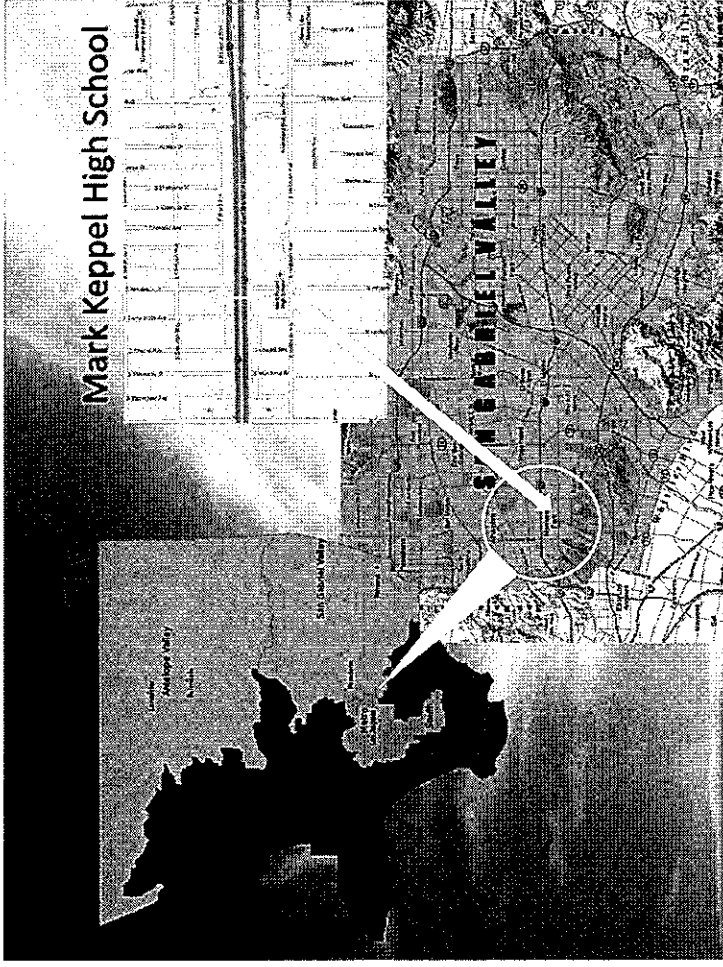


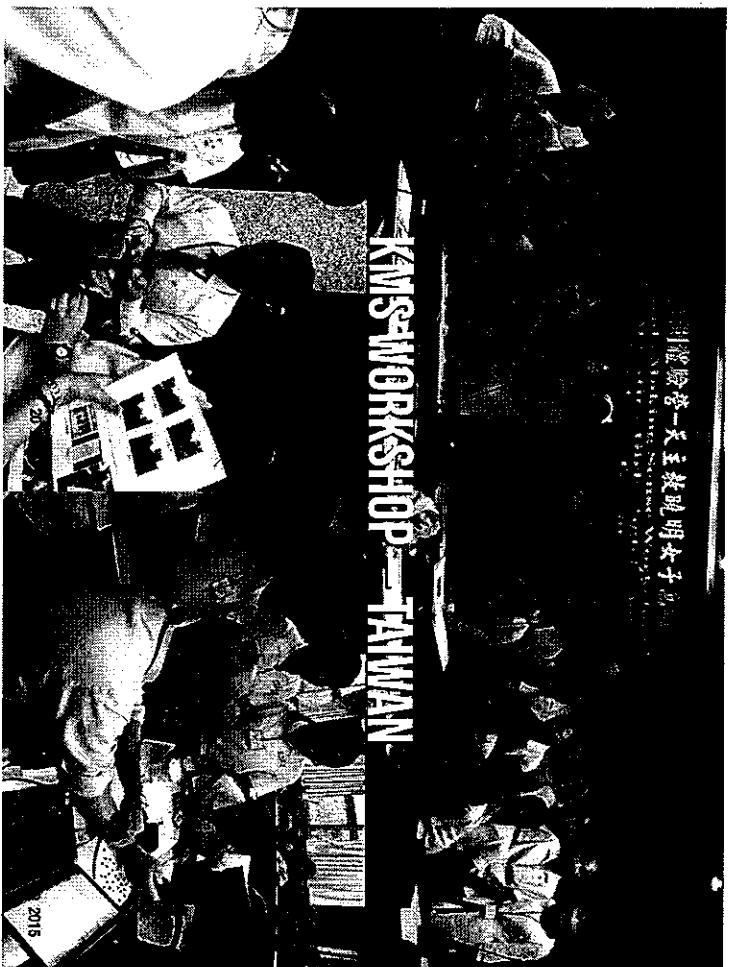


International Environmental Partnership



- Site Remediation
- Asia-Pacific Mercury Monitoring Network
- Cities Clean Asia Partnership
- Environmental Education
- International E-Waste Management Network
- Climate Change Adaptation
- Environmental Information

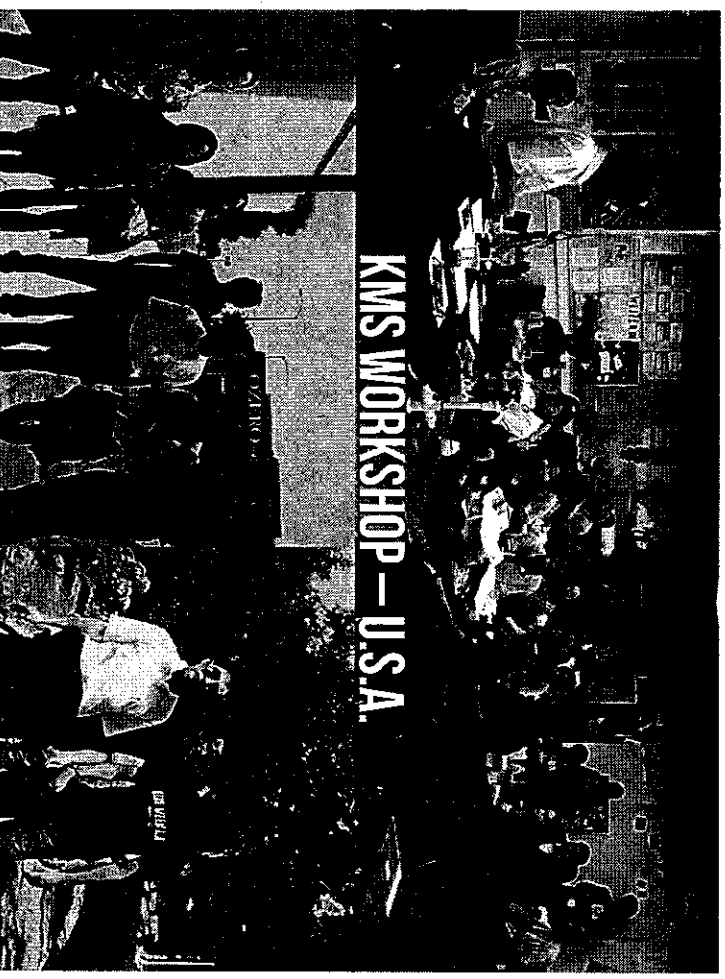
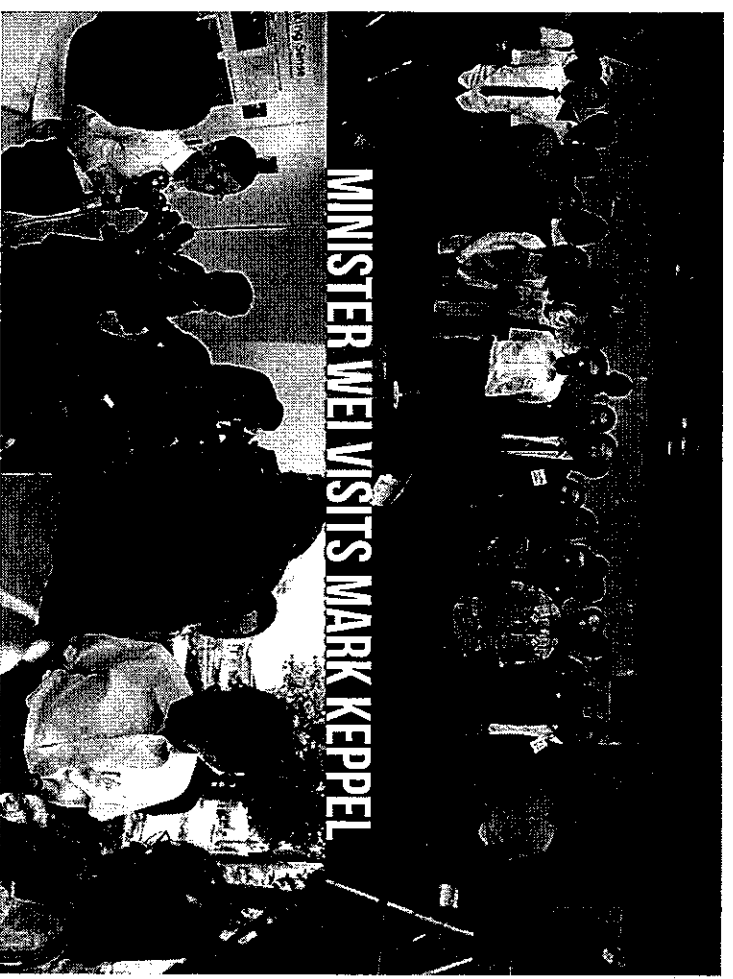


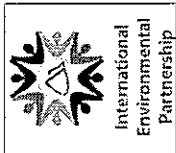


THANK YOU!

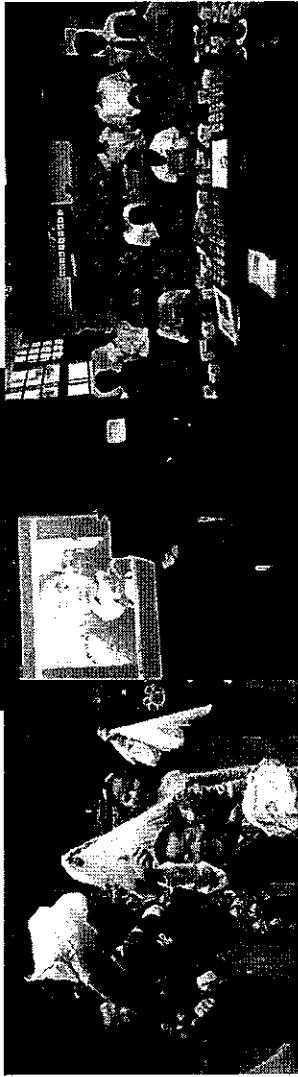
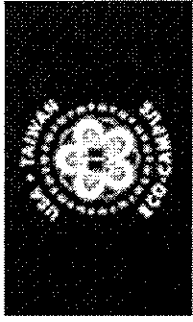
CONTACT INFO:

Kyle Tsukahira – Program Manager
Email: kitsukahira@ajpoa.org

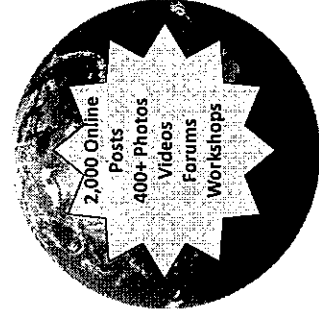
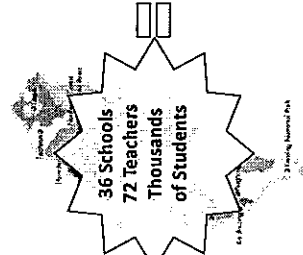
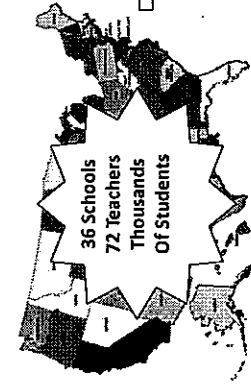
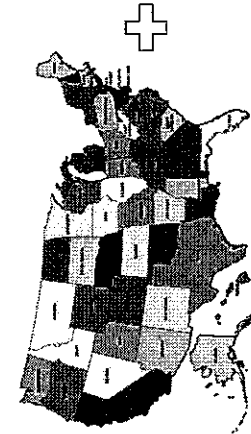
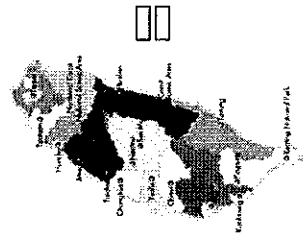
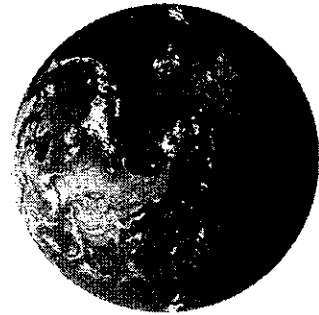




U.S.-Taiwan Eco-Campus Partnership Program



Endless Possibilities



Real Outcomes



A picture is worth a thousand words, but the memories are priceless..



International Environmental Partnership

"Time flies like an arrow. I would like to thank all the teachers and Eco-Campus group members. Your opinions and experiences really widen my horizon."
 ~Ye-Lun Wang, Nanhua Elementary

"It's been a pleasure working with all of you! My own students have really enjoyed seeing the projects that are happening in other schools."
 ~Jessie Gorant, Benjamin Franklin Elementary

"Everyone shared such great ideas and I learned so much. A Day in the Life was a great way to experience how our peers in Taiwan and within the US approach sustainability."
 ~Jacque Sanchez, Griffin Elementary

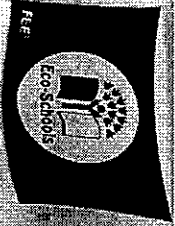
"This gives students a cross-cultural concept and global perspective. I learned how to guide students to solve problems on their own and make friends with people from all over the world."
 ~Jun Fan Lin, Tainan Kuang Hua High School



In-Person Educator Visits

U.S. Delegation to Taiwan
 July 2015

Taiwan Delegation to U.S.
 October 2014



"It's been a wonderful online journey to learn from partners of this course group. Each post provides a window open to future project ideas."
 ~Ting Hsuan Tseng, National Tainan Chia-Chi Girls Senior High School

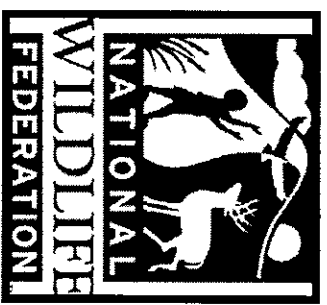
"It's been a great online forum. I think I will improve my teaching by this."
 ~Tseng Yu-Lin, Ping Tung County Nan Jung English Village



"I particularly enjoyed the opportunity to become familiar with the Eco-School program and to collaborate with schools in Taiwan. I am looking forward to sharing our project with our sister school in Tainan. Thank you for this excellent learning experience."

International Environmental Partnership

THANK YOU
 謝謝





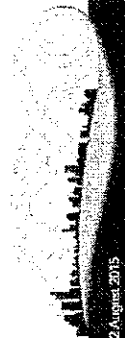
CITIES CLEAN AIR PARTNERSHIP

Glynda Bathan
Deputy Executive Director
Clean Air Asia

CITIES CLEAN AIR PARTNERSHIP WORKSHOP | Washington D.C., USA, 10-12 August 2015

Cities Clean Air Partnership (CCAP), a Clean Air Asia initiative, establishes a comprehensive platform for cities to cooperate and jointly address air quality challenges.

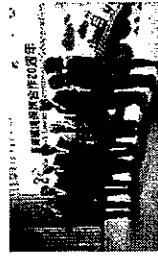
Clean Air Asia is an international NGO established in 2001, based in Manila, working for better air quality and livable cities in Asia.



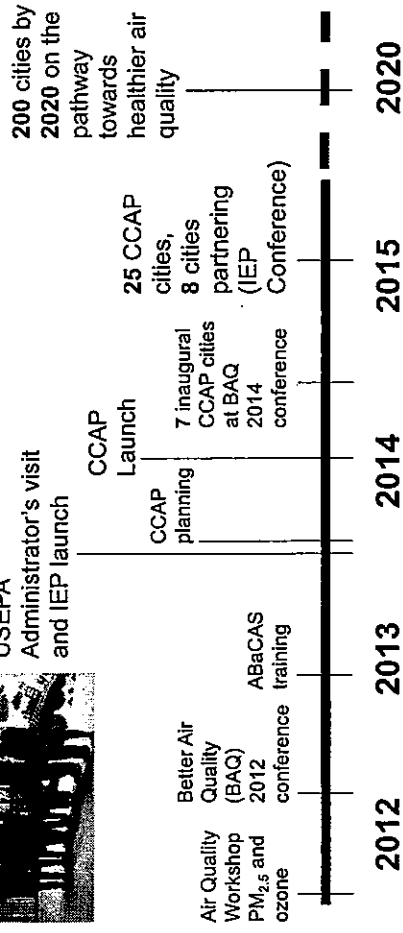
CITIES CLEAN AIR PARTNERSHIP WORKSHOP | Washington D.C., USA, 10-12 August 2015

In 2012, 7 million premature deaths were attributed to air pollution (1 in 8 deaths globally).

Developing Asia is the most affected region, with 3.3 million deaths linked to indoor air pollution and 2.6 million deaths to outdoor air pollution.



USEPA Administrator's visit and IEP launch



CITIES CLEAN AIR PARTNERSHIP WORKSHOP | Washington D.C., USA, 10-12 August 2015

IEP's support enables Clean Air Asia to strengthen the capacity of cities to manage air quality through:

- city-to-city cooperation (C³),
- voluntary city certification system, and
- a knowledge platform.

City-to-city cooperation (C³)

Partnering of volunteer cities for exchange of effective practices and innovative solutions to help address specific air quality management challenges faced by cities

- Easy entry requirements
- Clear and simple 6-step process
- Flexible to city needs and resources
- Scientific guidance through "model action lists"
- Fun reporting options
- Recognition and awards

City Partnership Guidance

Commercial Cooking

Reducing Emissions/Exposure from Small-scale Commercial Cooking

Required Actions

- Mentor city provides Partner city with an overview of control measures to reduce emission or exposure to pollutants from commercial cooking.
- Mentor city helps Partner city explore control measures appropriate for Partner city. The use of exhaust equipment in street markets, food stalls and other use of appropriate kitchen must be encouraged. Exhaust hood, reduction of fuel, volume and type of dishes to serve, convenient cooking area, increasing open stake and operation of street commercial cooking area, etc.
- Mentor city works with Partner city to develop strategy to implement control measures.
- Partner city provides ongoing (long term) support to assist partner city to work with appropriate city office to reduce levels of street cooking (e.g., presence of illegal street vendors, enforcement issues, etc.)

Voluntary Actions

- With input from Mentor city, Partner city develops outreach program to educate business owners and street vendors about health impacts of exposure to cooking fumes and steps to reduce exposure (e.g., used cover lids, use of exhaust equipment on stoves, improve such with exhaust hood, chimney, etc.).
- With input from Mentor city, Partner city develops outreach program to educate the public about health impacts of exposure to cooking fumes and steps to limit exposure (e.g., through newspaper, radio, TV and community open air, etc.).
- With input from Mentor city, Partner city develops plan to work with trade associations to educate members about exposure to cooking fumes and steps to limit exposure.
- Other voluntary measure identified by Partner city based on consultation with Mentor city.

Sample action list

Reducing Emissions / Exposure from Small-scale Commercial Cooking

- **Knowledge platform** (to be launched in November)
- Captures best practices, city case studies and other online resources
- Hosts an online database of experts worldwide on air quality management, sustainable urban transport, and others
- Disseminates information on available training programs on basic air quality management for cities

Knowledge platform

(to be launched in November)

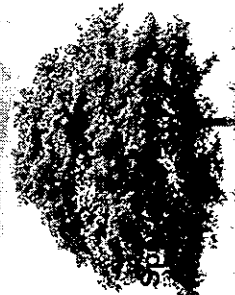
- Captures best practices, city case studies and other online resources
- Hosts an online database of experts worldwide on air quality management, sustainable urban transport, and others
- Disseminates information on available training programs on basic air quality management for cities

City Certification (pilot phase in 2016)

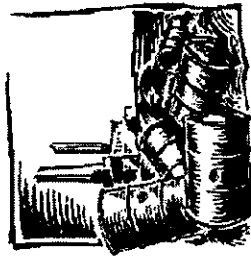
- Provides incentives for cities to take action against air pollution
- Allows cities to communicate their achievements towards air quality goals through a “seal of approval” or “eco-label”
- Offers international recognition for cities taking significant steps to improve air quality and gives a clear roadmap to continually improve capacity to manage air pollution

International Environmental Partnership Site Remediation

Chihwei Chang(Ph.D.)
Senior Environmental Technology Specialist
Environmental Protection Administration
Executive Yuan, R.O.C. (Taiwan)



Site Remediation



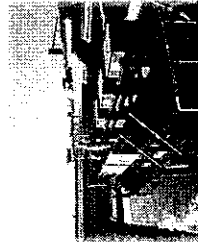
www.epa.gov



Thermal Treatment



Wet (Separation) Treatment



Phyto/Bio Treatment

Outline

- Site Remediation
- International Environmental Partnership
- Future Outlook



International Environmental Partnership

Share knowledge and experience among Taiwan, USA and other countries through meetings, field investigations, and remote conferences.

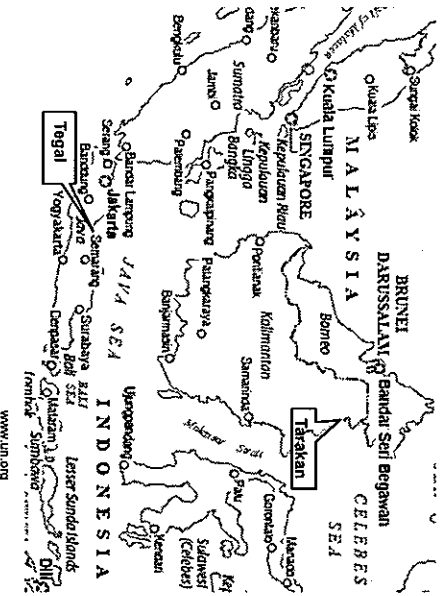


Annual Training Workshop



Field Study

Tremendous Collaboration with Indonesian Ministry of Environment and Forestry

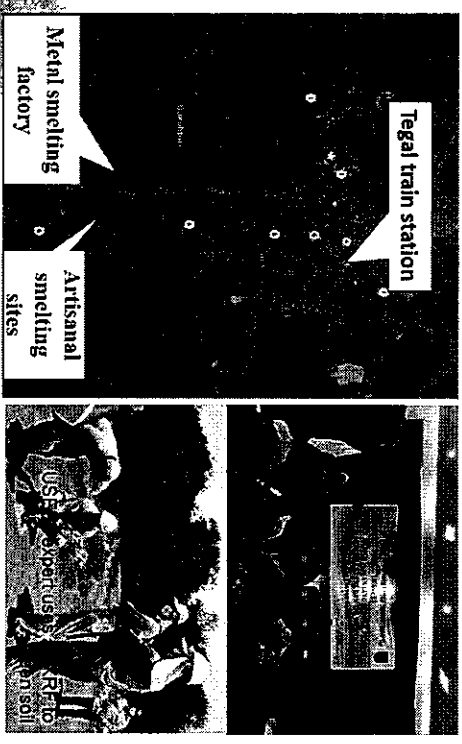


Tarakan Site Investigation



Don Bosco School
Discussing and exchanging views

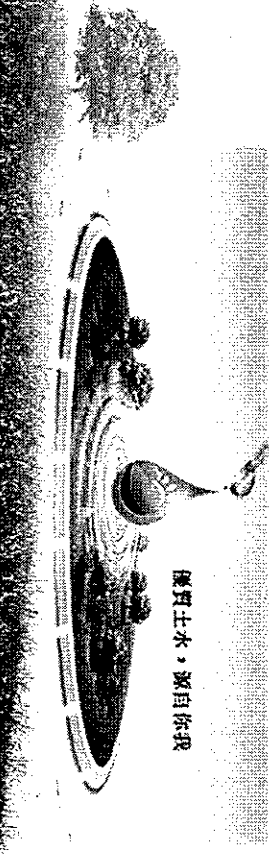
Tegal Site Investigation



Future Outlook



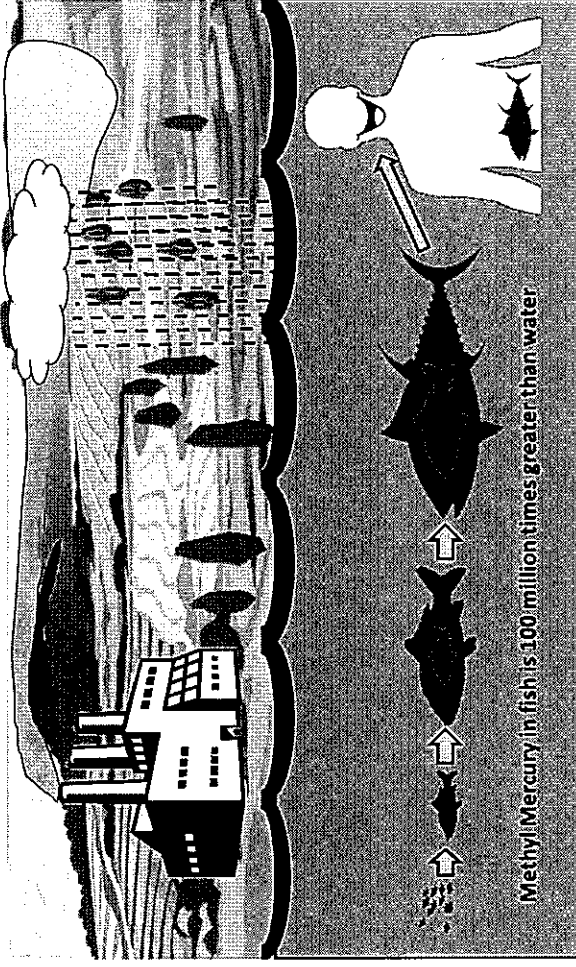
EPAT and USEPA will collaborate with other countries on site remediation through forum, workshop, training course, and technical assistance assignment.



優質土水，源自你我

What is the Mercury Issue?

Accumulation of Methyl Mercury in Fish and Shellfish



The Partnership

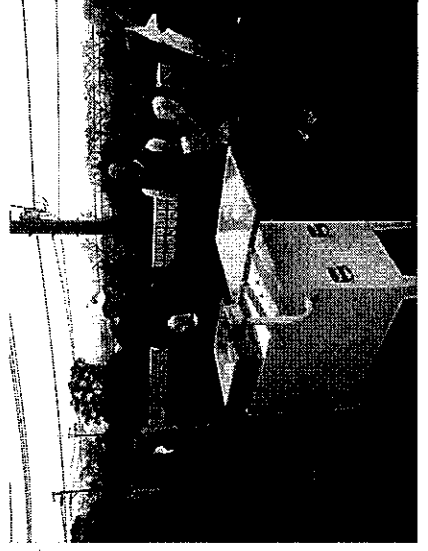
- Taiwan leadership**
- Sample analysis (through National Central University)
 - Site communication (Liaison)
 - Technology transfer
 - Data and information sharing
 - Training

Monitoring Partners

- Indonesia, Japan (training), Korea, Philippines, Thailand, Vietnam, Taiwan
- 7 Asian countries considering

Supporting Partners

- US EPA
- NADP
- Environment Canada



The Asia-Pacific Mercury Monitoring Network: Regional Cooperation to Track Mercury in the Environment



David A. Gay
 Coordinator, NADP
 University of Illinois
 dgay@illinois.edu
 217 244-0462



International
 Environmental
 Partnership

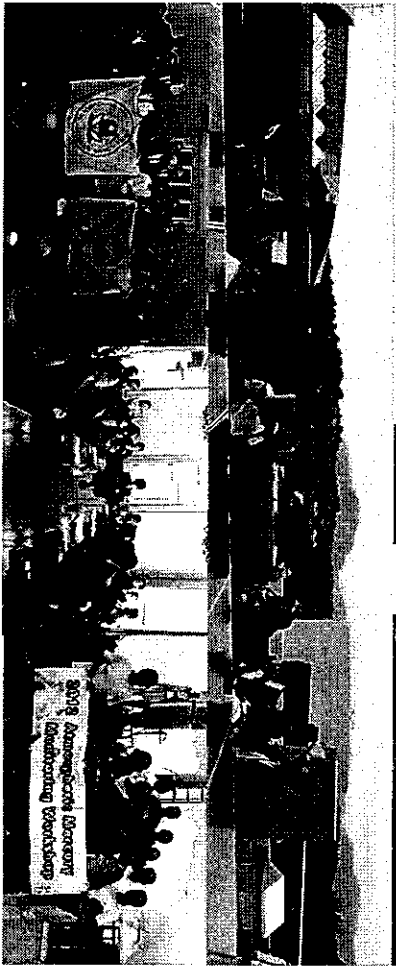
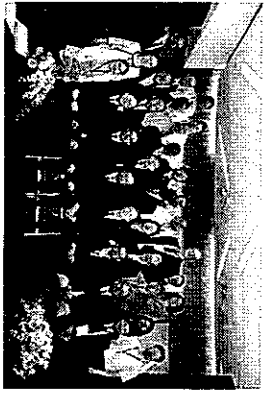


National Atmospheric
 Deposition Program

Minamata Convention On Mercury

- 128 signatories, 12 ratifications
- Controls emissions and releases
- Calls for data and cooperative monitoring





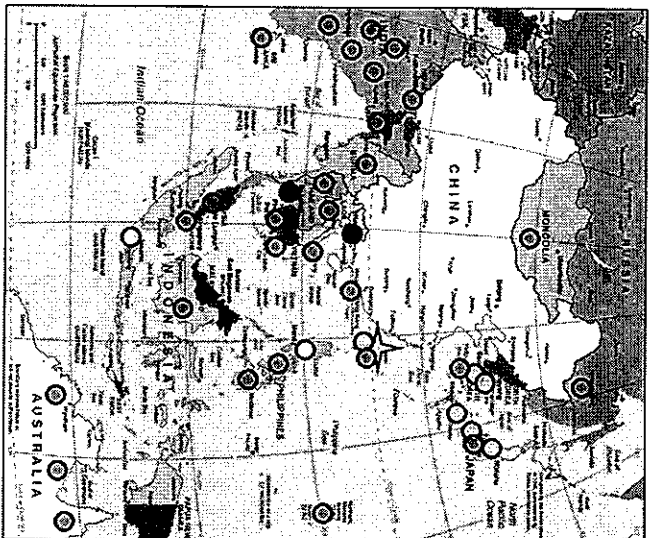
Advantages to Countries

Monitoring Countries receive:

- Equipment provided
- Collection data from in-country locations
- Training on making measurements, using data appropriately
- Baseline mercury monitoring data for research, trends, etc.
- Cooperation and data sharing among Asia countries

We are looking for new partners, if your country is interested in participating

- Equipment & chemical analysis will be provided
- Network decision making
- Training provided



Asia Pacific Mercury
Monitoring Network
Phase 1 & 2
Wet Deposition Sites

- Operating Sites
- Affiliated Sites
- Pending Sites
- ⊙ Planned Sites
- ★ Laboratory



International
Environmental
Partnership

International E-waste Management Network

Frineé Kathia Cano Robles
Ministry of Environment and Natural Resources - MEXICO

What is IEMN?

- ▶ U.S. EPA and EPAT have collaborated since 2011 to build global capacity for the environmentally sound management of e-waste and coordinate the International E-Waste Management Network (IEMN).
- ▶ IEMN enables environmental officials from within and beyond the Asia-Pacific region to exchange information on e-waste.

2012
Taiwan

2013
United States

2014
Vietnam

2015
Colombia



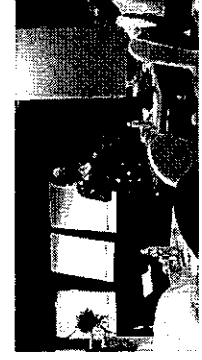
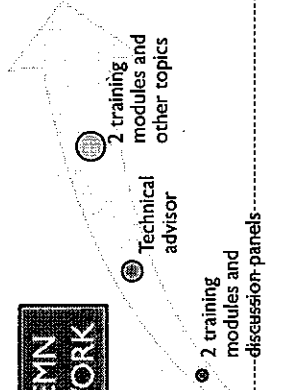
Environmental issue



Our participation



- ▶ Background: Commission of Environmental Cooperation of North America (CEC)
- ▶ Development of Technical Guidelines on Environmentally Sound Management for Refurbishment and Recycle of End-of-life Electronics



Global community



Thank you!

IEMN WEBSITE

<http://www2.epa.gov/international-cooperation/international-e-waste-management-network-iemn>

GEEP

GLOBAL
ENVIRONMENTAL
EDUCATION
PARTNERSHIP

August 10, 2015



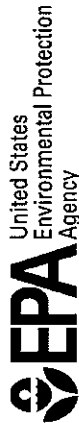
GLOBAL
ENVIRONMENTAL
EDUCATION
PARTNERSHIP

GEEP

Great Partnerships



EPA
TAIWAN



United States
Environmental Protection
Agency



naaee

North American Association
for Environmental Education

NAAEE

The professional association, champion, and backbone organization for the field of environmental education, working with a diverse group of educators in the United States, Canada, Mexico and in many other parts of the world to advance environmental education.

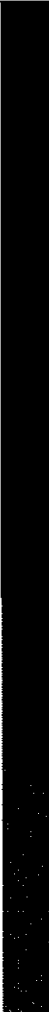
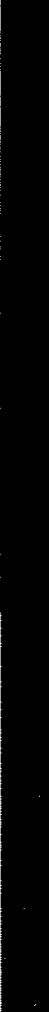


naaee

North American Association
for Environmental Education

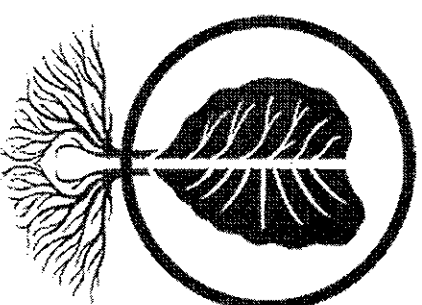
GLOBAL
ENVIRONMENTAL
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PARTNERSHIP

GEEP





What does APIOPA Stand For?

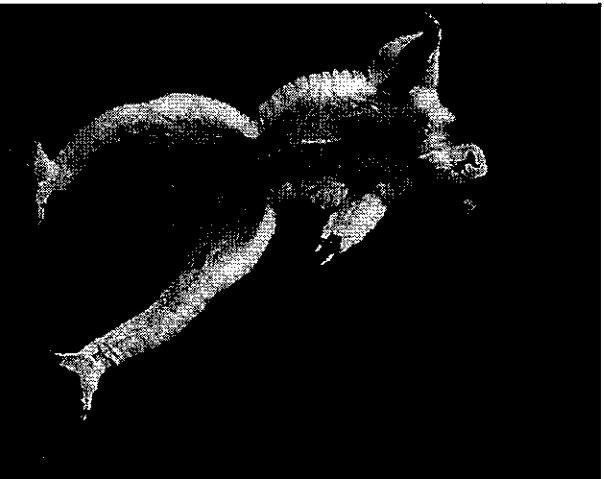


apioppa

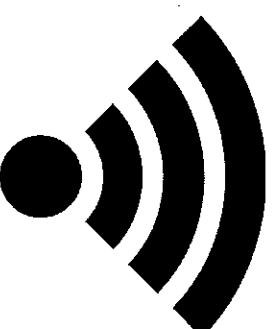
Asian and Pacific Islander Obesity Prevention Alliance

How many countries have National Environmental Education Mandates?

- 7 Countries
- US
- Brazil
- Armenia
- Japan
- Philippines
- South Korea
- Taiwan



What country was the first to offer free wifi on a large scale to tourists and residents with more than 5,000 hotspots?



Taiwan! Taiwan, launched two years ago, and now has more than 5,000 hotspots dotted around the island, including the main tourist attractions, transport hubs and government buildings.

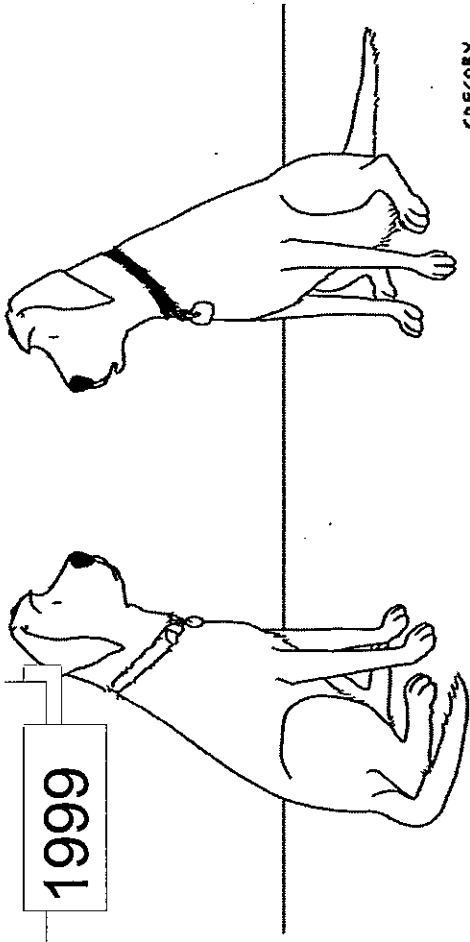
And Niue, in the South Pacific, was the first small island nation to offer free wifi for everyone in 2003

Name two things that help birds fly.



What year was the word "blog" coined?

1999



"I had my own blog for a while, but I decided to go back to just pointless, incessant barking."

What percentage of the Earth's water is fresh water?



Fresh water 3%



Earth's water

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Vision

GEEP is a global partnership committed to advancing environmental literacy to create a just and sustainable future through the power of education.



Goal

Strengthen environmental education in GEEP countries through collaboration, capacity building, and sharing best practice.



Defining EE



Tbilisi Declaration: EE is a learning process that increases people's **knowledge and awareness** about the environment and its associated challenges, develops the necessary **skills and expertise** to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take **responsible action**.

1977



Major Components



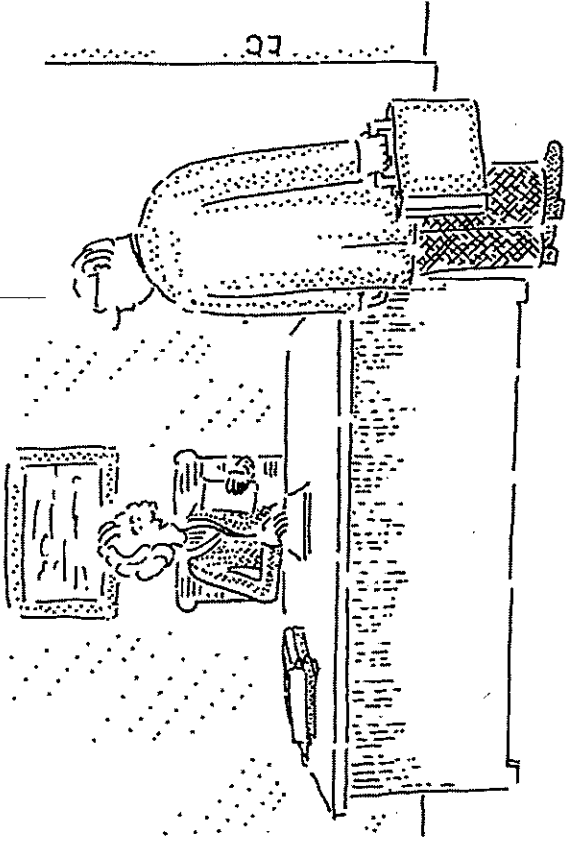
- Awareness
- Knowledge
- Skills
- Attitudes
- Action



Foundations of EE



Lifelong Learning



"Sir, the following paradigm shifts occurred while you were out."

17

Cradle to Grey: All Sectors

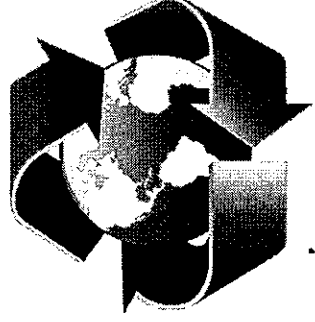
- Schools (Preschool, K-12)
- Nature centers, zoos, museums, aquaria, resident centers
- Community-based organizations
- Local, state, and federal agencies
- Universities
- Teachers
- Administrators
- Natural resource professionals
- Youth Groups and Seniors
- Businesses

19

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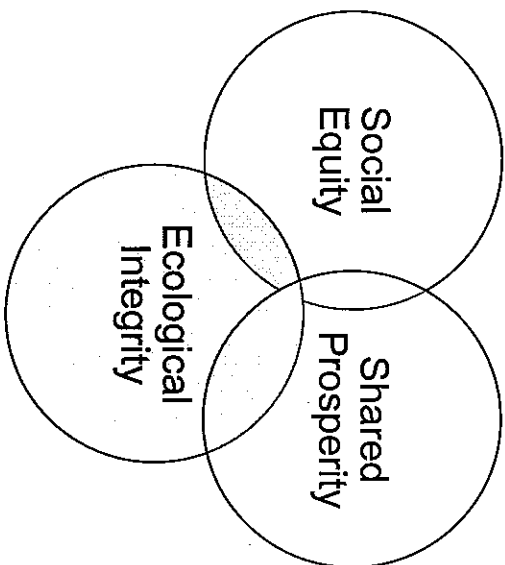
GEEP

Systems Thinking





Sustainability



Importance of Place



Diversity, Inclusion, and Equity

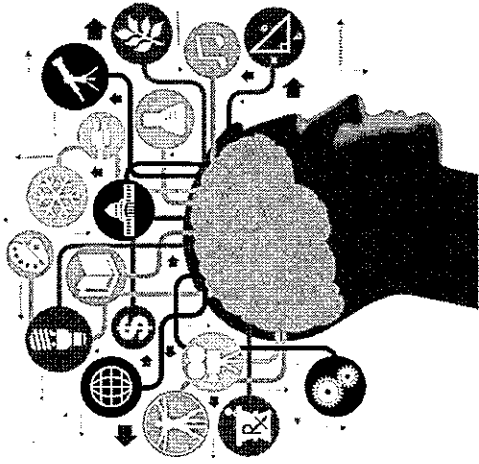


Scientific Thinking



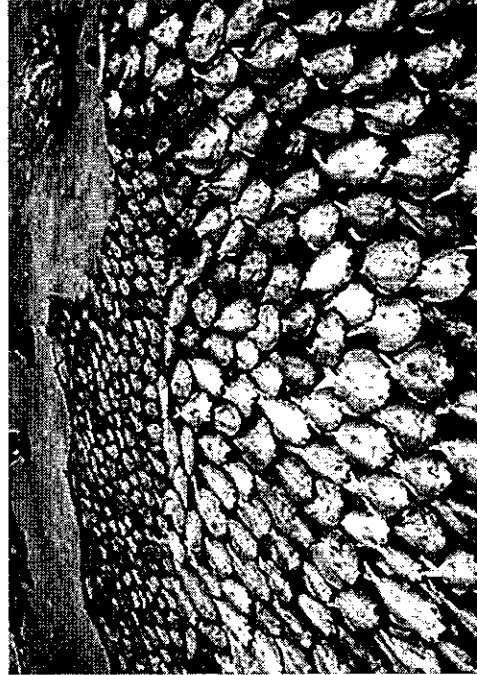
Interdisciplinary **Geep**

GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP



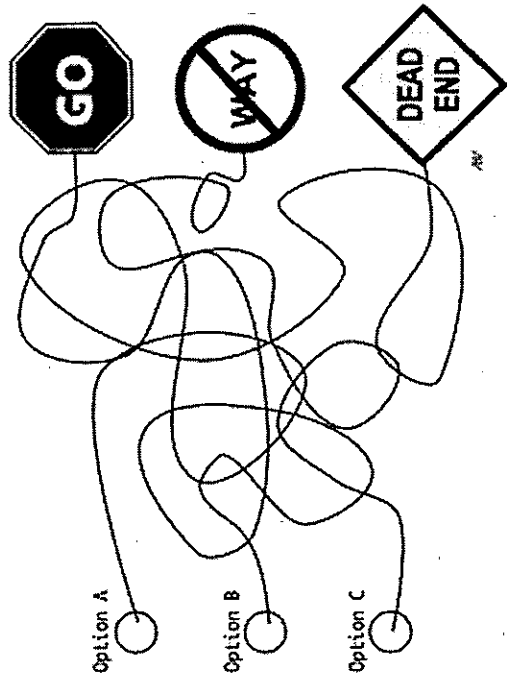
Solutions

GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP



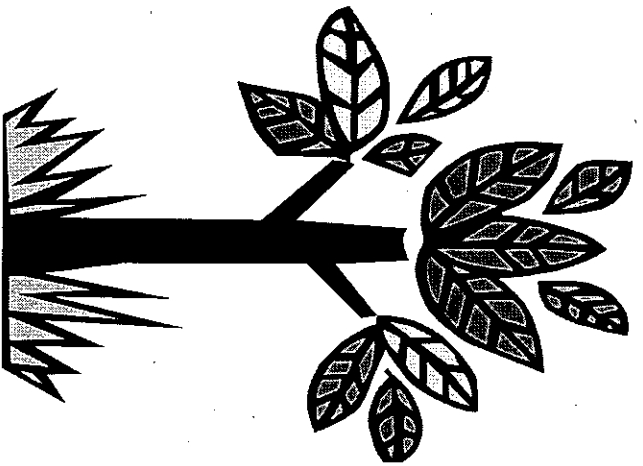
Informed Decision Making

Everybody clear about your options?



It's the process!

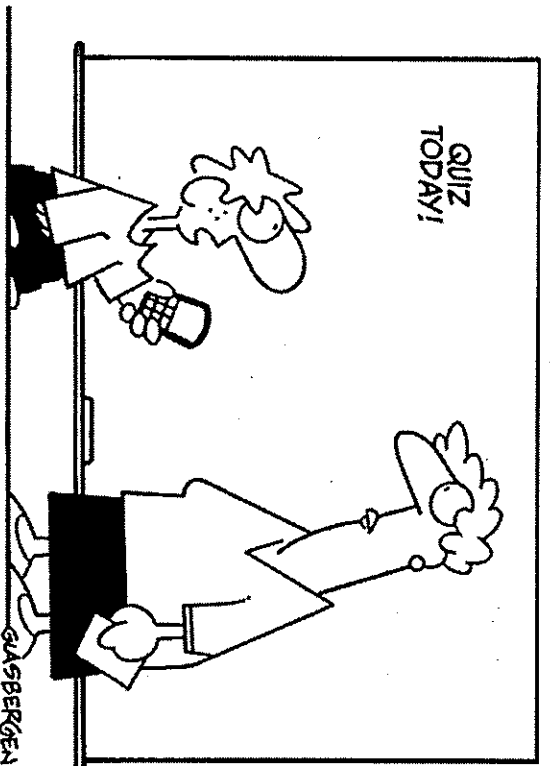
Experiential Learning Cycle



Action and Civic Responsibility!

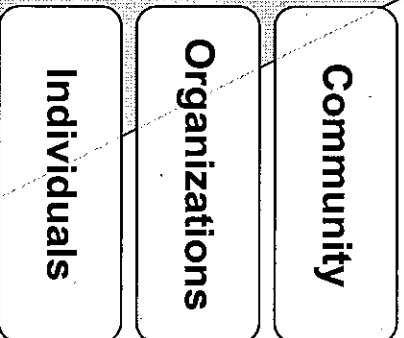


Beyond Awareness and Knowledge



“Once I learn how to use Google, isn't that all the education I really need?”

Change at Multiple Levels



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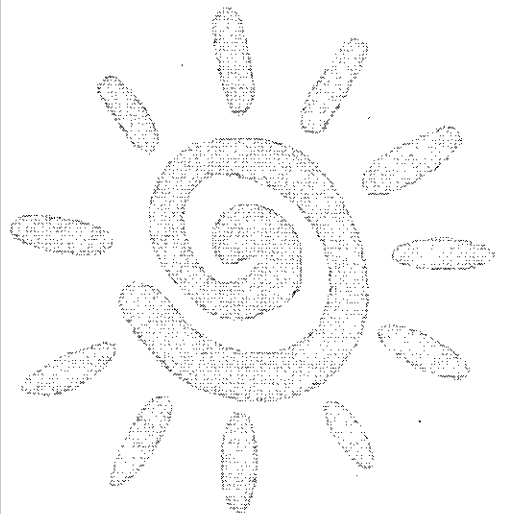
GeEP

Strengthen EE and build capacity!

GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP

GeEP

Bright Spots Are Everywhere!



Share Best Practices Globally

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GeEP



Opportunities

- Fill an existing gap
- Promote **Section Header** inclusivity
- Develop shared measures
- Create long-lasting change



GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP

GeEP

24 countries and counting

Africa

Botswana
Kenya
Morocco
South Africa

North, Central, and

South America

Brazil
Canada
Chile
Honduras
Mexico
Nicaragua
United States

Asia

Cambodia
China
Japan
India
Indonesia
Philippines
South Korea
Taiwan
Vietnam

Europe

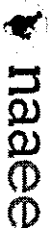
The Netherlands
The UK

Middle East

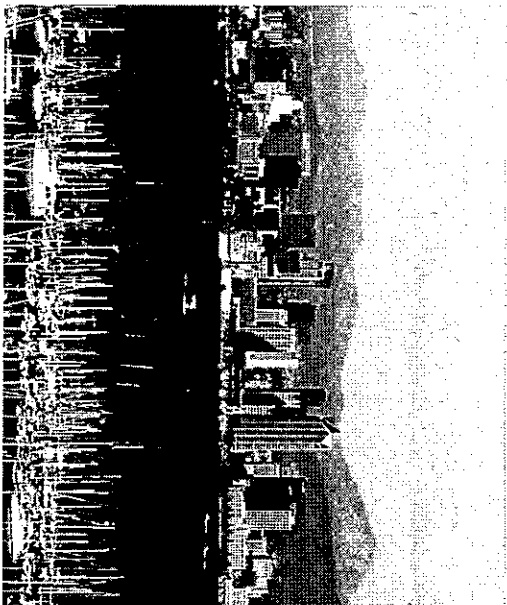
United Arab Emirates

Oceania

Australia
New Zealand



NAAEE Annual International Conference



Building a Stronger and More Inclusive Movement!

Presentation at the World Environmental Education Conference, 2015



8TH WEEC Planet and People

-how can they develop together?

GOTHENBURG 2015



Looking Forward

- Leadership meeting in San Diego, October 13, 2015
- Continuing partnership with Asian and Pacific Islander Obesity Prevention Alliance
- Launch of website, thegeep.org



Sharing ideas that create a more just and sustainable future through the power of environmental education



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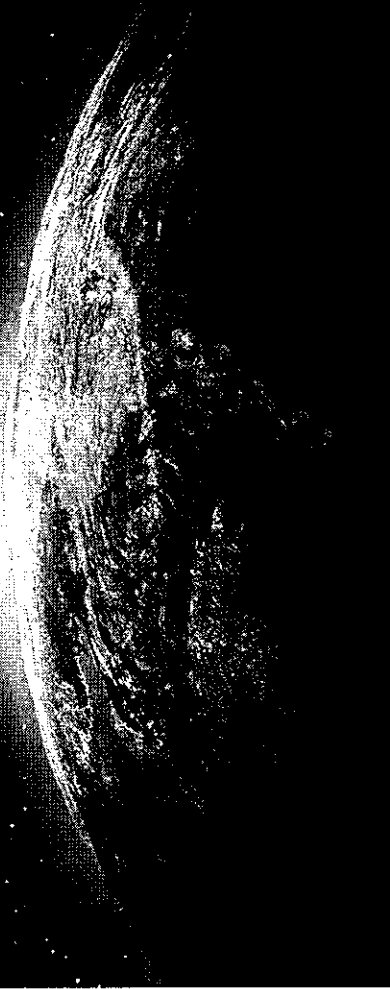
To find out more about the GEEP, email us at info@thegeep.org.

What technologies can help us?



“All I’m saying is now is the time to develop the technology to deflect an asteroid.”

geep
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EDUCATION PARTNERSHIP



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Thank you!

The U.S.-Taiwan Eco-Campus Partnership Program is supported through the International Environmental Partnership which was launched by U.S. EPA and EPA Taiwan in April 2014.

Coordinated by the National Wildlife Federation through its Eco-Schools USA Program, the program pairs schools in the United States with schools in Taiwan to utilize project-based learning and to focus on sustainability topics such as energy, water, climate change, school gardens, and more.



US EPA Administrator Gina McCarthy and EPA Taiwan Minister Wei Yen-Kuo at Jian-An Elementary in Taipei, Taiwan, April 2014.



The National Wildlife Federation is one of the largest and oldest conservation education organizations in the United States.

Since 1936, National Wildlife Federation has been inspiring Americans to protect wildlife for our children's future.



To learn more about the Eco-Campus Partnership Program and other NWF K-12 education programs, please contact the National Wildlife Federation.



Eco-Schools USA
NATIONAL WILDLIFE FEDERATION*

National Wildlife Federation

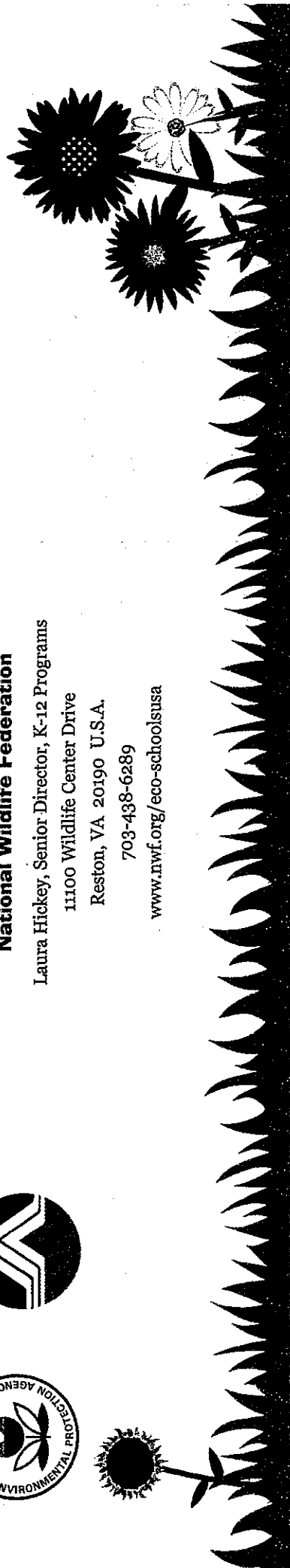
Laura Hickey, Senior Director, K-12 Programs
11100 Wildlife Center Drive
Reston, VA 20190 U.S.A.

703-438-6289

www.nwf.org/eco-schoolsusa

U.S.-Taiwan Eco-Campus Partnership Program

K-12 School Collaborations on Sustainability Projects



Program Purpose

The overarching goal of the Eco-Campus Partnership Program is the development of an international program that will bring communities in both the U.S. and Taiwan closer together. The long-term goal is that every school in Taiwan will have the opportunity to be matched with a sustainable school in the United States, and vice versa. Once implemented, this collaboration could serve as a model for replication in other global regions and countries in which both Taiwan and the United States would wish to engage.

The Eco-Campus Partnership Program is designed to increase intercultural understanding and to better understand one's own culture and country. Improved competence and confidence in the use of technology results from the use of the innovative online platform. And educators have opportunities to share pedagogies and engage in joint curriculum development.



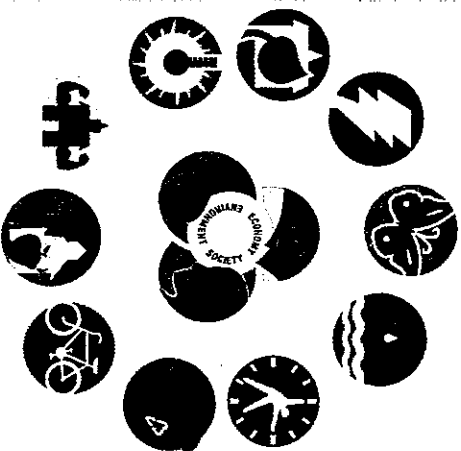
Project-based Learning



Through this program, educators are taught how to implement the Project-Based Learning Method through which students are involved in individual and collaborative work to explore real-world problems. They participate in projects and practice an interdisciplinary array of skills from math, language arts, science, geography, and technology.

The benefits of Project-Based Learning include deeper knowledge of subject matter; increased motivation, creativity and innovation; improved research and problem solving skills; greater awareness and exploration of community issues and future careers; and engagement with peers, adults, and community members.

Students focus their projects on the ten NWF Eco-Schools USA environmental "Pathways":



Innovative Online Platform

The Eco-Campus Partnership Program utilizes an innovative online collaborative platform - iEARN (International Education and Resource Network).

iEARN
www.iearn.org

iEARN is a safe and secure online platform where teachers and students collaborate on projects, create and share photos, videos, documents, and other resources. Over 2 million students each day are engaged in collaborative work through iEARN.



Students at Ben Franklin Elementary,
New Jersey



CITIES CLEAN AIR PARTNERSHIP

The **Cities Clean Air Partnership (CCAP)** asserts that city-level action is the foundation for addressing the global challenge of air pollution and its impact on public health. **CCAP** establishes a comprehensive platform for cities to cooperate and jointly address air quality challenges. The initiative will strengthen air quality management capacity in Asian cities and drive measurable results through city-level actions. We aim to reach more than 200 cities across Asia.

We recognize that cities are on the front lines in the fight against air pollution and climate change, and that managing air pollution and greenhouse gas emissions are complex tasks requiring long-term commitment and multi-stakeholder actions at the city level.

CCAP aims to provide cities with incentives, direct support, and technical assistance to keep them moving incrementally and continuously towards their clean air targets through:

City-to-City Cooperation (C³) Program to promote city-to-city learning and collaboration to drive measurable results through city-level actions. The "twinning" of volunteer cities will allow exchange of effective practices and innovative solutions to help address specific air quality management challenges faced by cities.

The Bay Area and South Coast Air Quality Management Districts are initial US partners that support the operation of this new framework of cooperation which will be an open initiative involving more participating cities and partners in the future.

City Certification Program to provide incentives for implementing transformational change for better air quality and livable cities. Cities will be able to communicate their achievements made towards air quality management goals through a "seal of approval" (or eco-label).



Photo: sp... ..

"In 2012 around 7 million people died – one in eight of total global deaths – as a result of air pollution exposure... the new data reveals a stronger link between both indoor and outdoor air pollution exposure and cardiovascular diseases, such as strokes and ischaemic heart disease, as well as between air pollution and cancer." - World Health Organization, 2014

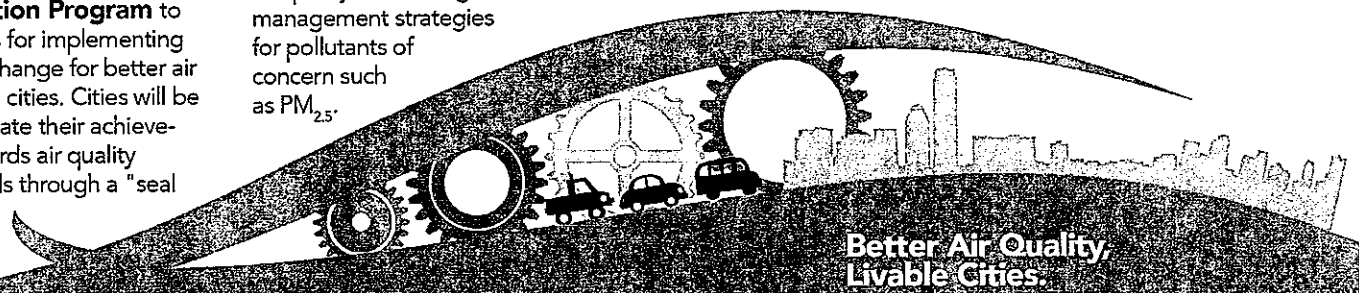
The program offers international recognition for cities taking significant steps to improve their air quality and gives a clear roadmap to continually improve capacity to manage air pollution.

• **Knowledge platform** to share best practices and networking, including an online experts database accessible to CCAP cities. This platform includes city training programs to strengthen capacity of cities on emissions inventory, air quality monitoring tools and management strategies for pollutants of concern such as PM_{2.5}.



CITIES CLEAN AIR PARTNERSHIP WORKSHOP

Washington Hilton Hotel | 10-12 August 2015
Participating Cities: Baguio | Bangkok | Cochin (Kochi) | Colombo | Da Lat |
Haiphong | Iloilo | Jakarta | Kathmandu | Kitakyushu | Malang | Pasig | Shimla | Siem Reap |
Singapore | Surabaya | Taichung | Taipei | Taoyuan | Ulaanbaatar |
Varanasi | Yokohama | Yogyakarta



**Better Air Quality,
Livable Cities.**
www.cleanairasia.org/CCAP

Clean Air Asia, an international NGO established in 2001 as the premier air quality network for Asia by the Asian Development Bank, World Bank and USAID, implements the Cities Clean Air Partnership (CCAP). Our mission is to promote better air quality and livable cities by translating knowledge to policies and actions that enable Asia's 1000+ cities to reduce air pollution and greenhouse gas emissions from transport, energy and other sectors.



The Cities Clean Air Partnership is an initiative of Clean Air Asia supported by the International Environmental Partnership.



C3

A program under Cities Clean Air Partnership (CCAP) that promotes city-to-city learning and collaboration to drive measurable results through city-level actions.

Available to cities committed to taking action to reduce air pollution.

Volunteer partnering of cities allow exchange information on good practices and innovative solutions to reduce air pollution.



1 MATCHING CITIES

Learning **City** provides information on action categories or specific action(s) for which it seeks support from a **Mentor City**. The applicant specifies the desired partnering period - when, ways in which they can contribute (e.g., staff time).



2 DEVELOPING THE ACTION LIST

A **launch meeting**, preferably via conference call, will be facilitated by the Clean Air Asia to introduce the **Cooperating Cities** where objectives will be discussed and specific actions and timeline will be developed for the **C3** program.



3 IMPLEMENTATION

Cooperating Cities may share technical information via email, webinars, teleconferencing meetings. This may be supplemented with face-to-face meetings or study tours.



4 SHARING OF RESULTS AND LESSONS LEARNED

Video or audio recorded interviews of city representatives on the **C3** will be shared with other cities primarily through the **CCAP** knowledge platform.

5 CONTINUING COOPERATION

Cities that wish to extend their cooperation or continue cooperating on other areas to reduce air pollution are encouraged to do so. **Clean Air Asia** will document the progress, as informed.



6 RECOGNITION




The most successful **C3** program cities will be recognized on the exclusive "Community Day" only for **CCAP** cities at the biennial Better Air Quality (BAQ) conference in 2016.

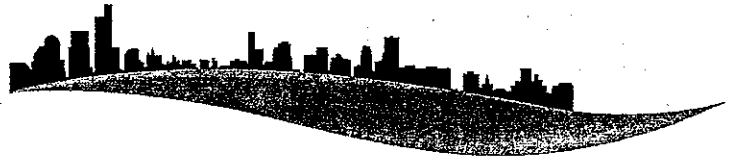
CITY-TO-CITY COOPERATION

CCAP is an initiative which empowers cities to achieve clean air targets through voluntary city-to-city cooperation, knowledge platform and expert community, and voluntary eco-label that recognizes cities for taking significant steps to improve air quality and their capacity to manage air quality (currently being developed, to be piloted in 2016). We aim to reach more than 200 cities across Asia.

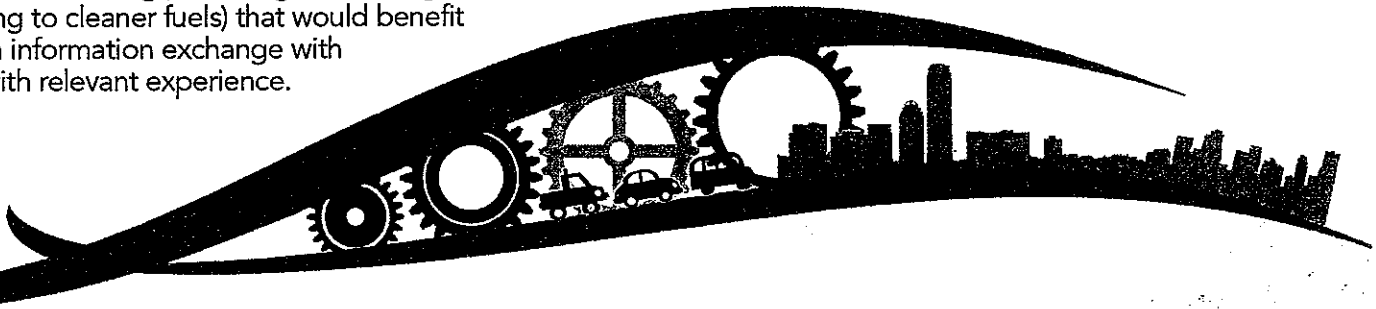
What is C³?

C³ is a program under **Cities Clean Air Partnership (CCAP)** that promotes city-to-city learning and collaboration to drive measurable results through city-level actions.

-  The C³ program is available to cities committed to taking action to reduce air pollution.
-  The volunteer “partnering” of cities allows cities to exchange information on good practices and innovative solutions to reduce air pollution.
-  The starting point for the C³ program is the City Registration Form. On this form, a city that wants to partner with another city through the program describes its current air quality challenges and the types of actions (e.g., reducing traffic congestion, switching to cleaner fuels) that would benefit from an information exchange with a city with relevant experience.



CITIES CLEAN AIR PARTNERSHIP



Why C³?

Cities are on front lines against air pollution, including short lived climate pollutants. Asian cities are particularly vulnerable and bear the greatest burden of disease from air pollution, especially fine-particle (PM_{2.5}) pollution. In 2012, of 7 million premature deaths globally from air pollution, 3.3 million deaths linked to indoor air pollution and 2.6 million deaths related to outdoor air pollution were estimated to have occurred in Asia (WHO, 2014). With the continued rapid urbanization of this region, more people are being exposed to urban air pollution and suffering serious health impacts. Cooperation between cities in taking action to improve air quality is imperative as scientific evidence mounts showing the serious health and economic consequences of air pollution from local, regional, and even global sources.

This Guidance document is a step-by-step guide to participation in the C³ program. It describes how to:

1. Identify and match cities
2. Hold launch meeting and develop Action List
3. Implement Action List
4. Share results and lessons learned
5. Complete the C³ program or extend C³ program activities
6. Be recognized

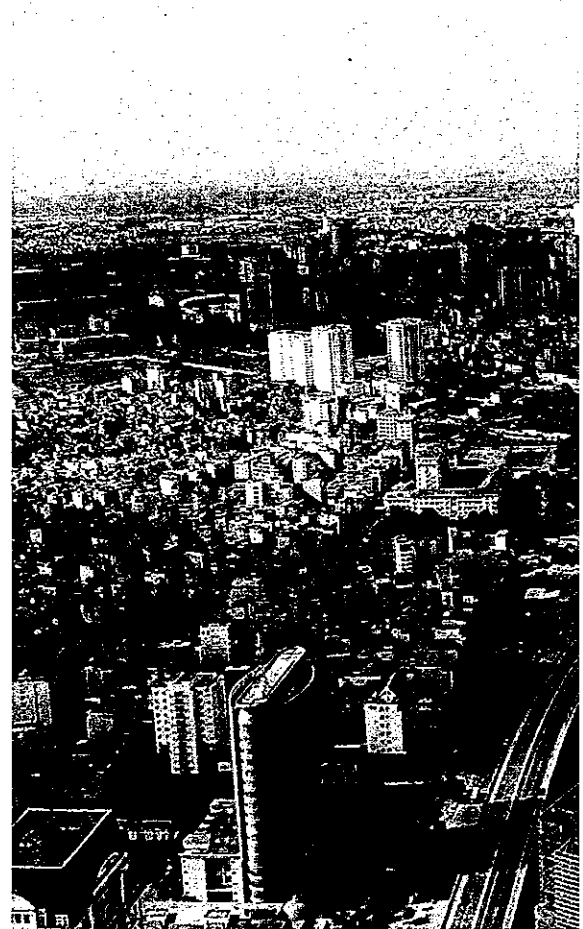


Table of Contents

Identify and match cities	3
Hold launch meeting and develop Action List	3
Implement Action List	4
Share results and lessons learned	4
Continue cooperation	4
Be recognized	4



Cities Clean Air Partnership (CCAP)

CCAP is an initiative which empowers cities to achieve clean air targets through:

- Voluntary city-to-city cooperation,
- A knowledge platform and expert community, and
- Voluntary eco-label that recognizes cities for taking significant steps to improve air quality and their capacity to manage air quality (currently being developed, to be piloted in 2016).

We aim to reach more than 200 cities across Asia.

Clean Air Asia, an international NGO established in 2001 as the premier air quality network for Asia by the Asian Development Bank, World Bank and USAID, implements CCAP. Our mission is to promote better air quality and livable cities by translating knowledge to policies and actions that enable Asia's 1000+ cities to reduce air pollution and greenhouse gas emissions from transport, energy and other sectors.

CCAP is supported by the International Environmental Partnership, an environmental collaboration program established by the Environmental Protection Administration Taiwan and the United States Environmental Protection Agency aimed at assisting environmental agencies and organizations around the globe strengthen their capacity to manage the environment and protect human health.



Contact Us

Chee Anne G. Rono
Program Manager
ritchie.rono@cleanairasia.org
www.cleanairasia.org/ccap

1 IDENTIFY AND MATCH CITIES

Guiding Principles

- City partnering is voluntary and designed to foster city-to-city learning and information exchange.
- Cities eligible for partnering are members of the Cities Clean Air Partnership.
- Mentor cities are those with demonstrated success in taking actions to reduce emissions of air pollutants, including short lived climate pollutants.
- Learning cities are those that have initiated steps towards developing and/or implementing policies or actions to reduce air pollution, but need some external guidance to achieve the desired results.

Process

A city expresses interest in joining the C³ program by completing the City Registration Form. This city (called the "learning city") provides information on action categories or specific action(s) for which it seeks support from a city with expertise (called a "mentor city"). The applicant specifies the desired partnering period - when, ways of working - how, and ways in which they can contribute (e.g., staff time).

Clean Air Asia will identify possible mentor cities based on these criteria:

- Action categories or specific actions: match between requested assistance and experience and expertise of mentor cities.
- Language: potential challenges in communicating, e.g., can both use English or other common language?
- Location: ease and cost of getting to and from both cities. (Note: Partners are encouraged to use, to the extent possible, electronic means of communication and learning.)
- Prior engagement: extent to which cities have an existing relationship.

If a mentor city is not identified, Clean Air Asia will suggest ways for the learning city to access the expertise it needs through the CCAP network (e.g., technical training, mentoring by an expert from academia or national government agency).

2 HOLD LAUNCH MEETING AND DEVELOP ACTION LIST

Guiding Principles

- A launch meeting, preferably via conference call, will be held to introduce the cooperating cities and to discuss the objective(s), scope, and specific actions ("Action List") that the cities will work on.
- Clean Air Asia will facilitate this meeting.
- The meeting minutes, which will be taken by Clean Air Asia and reviewed and approved by both cities, will be sufficient documentation to proceed with the city-to-city cooperation.



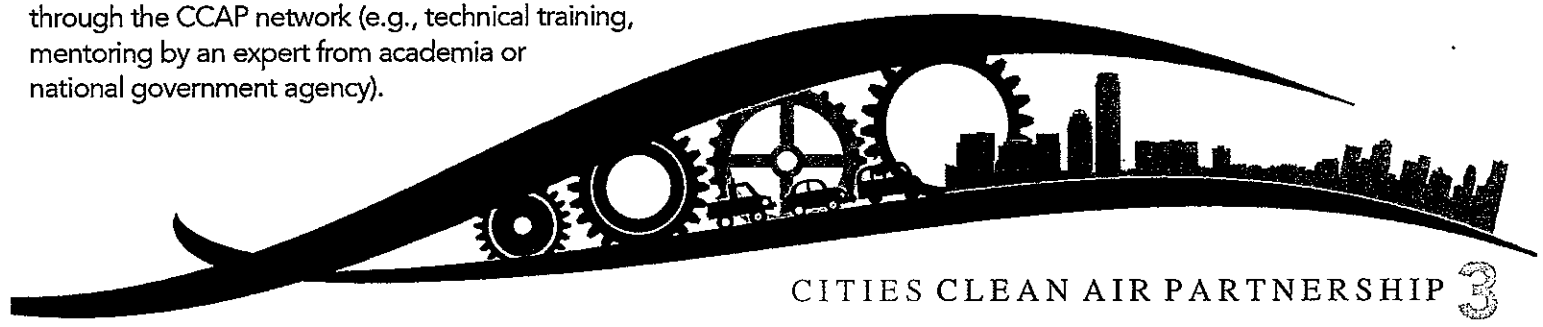
Process

Proposed meeting agenda:

- Introduce city representatives and meeting objectives (by Clean Air Asia)
- Develop the Action List (facilitated by Clean Air Asia)
 - Identify what the cities want to achieve by the end of the C³ program (objectives)
 - Develop the specific actions for the city-to-city cooperation (C³) program
 - Establish a timeline for implementing the Action List

In developing their Action List, the cities may refer to the "C³ Model Action Lists" with recommended voluntary actions that cities could work on.

Model Action Lists are available for a variety of Action Categories (e.g., commercial cooking, bike sharing, port emissions management); the specific actions on these lists are good practices supported by scientific literature and city case studies.



3 IMPLEMENT ACTION LIST

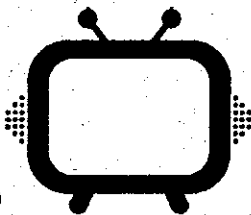
Guiding Principles

City-to-city cooperation is a two-way exchange that helps learning cities to make progress in a specific area of air quality management.

Both mentor and learning cities work together based on the agreed Action List and timeline.

Process

The cooperation can take different forms. For example, cities may share technical information via email, webinars, teleconferencing meetings. This may be supplemented with face-to-face meetings or study tours.



4 SHARE RESULTS AND LESSONS LEARNED

Guiding Principles

Communication between the cooperating cities, either via phone, in meetings, or in writing (e.g., emails) is key to success of the C³ program.

Reporting the results of the city-to-city cooperation through video or audio interviews conducted or other means (e.g., presentations) by Clean Air Asia are easy and fun ways of sharing lessons learned to other cities.

Process

To facilitate communication, information on focal points for learning and mentor cities will form part of the Action List.

Video or audio recorded interviews of city representatives on the city-to-city cooperation will be shared with other cities primarily through the CCAP knowledge platform. Cities have the option to prepare a final powerpoint presentation to share results and achievements under the cooperation.

5 CONTINUING COOPERATION

Guiding Principles

Cities that have successfully completed their C³ program Action List are welcome to continue their partnership on other air pollution reduction actions.

If they agree to, the cooperating cities may extend their city-to-city cooperation.

Process

Cities that wish to extend their cooperation or continue cooperating on other areas to reduce air pollution are encouraged to do so. Clean Air Asia requests the cities to inform it of such arrangements so it can continue to document and share the results of their cooperation with other cities.

Once a city-to-city cooperation is successfully completed, the partnering cities remain part of CCAP and will be kept informed of CCAP activities. Learning or mentor cities can also opt to withdraw from the C³ program by mutual consent.

6 BE RECOGNIZED

Cities will be recognized for exceptional performance in the C³ program. The mechanics of the recognition program will be announced in 2015.

Exceptional performance worthy of recognition include, among others, learning cities that are recommended by their mentor cities as deserving of recognition with reasons listed by the mentor city in the letter to Clean Air Asia.

An exclusive "Community Day" only for CCAP cities will be held at the biennial Better Air Quality (BAQ) conference where the most successful C³ program cities will be recognized for their achievements. The BAQ 2016 will be jointly held with the World Clean Air Congress in Busan, S. Korea on 29 August to 2 September 2016 with the theme "Clean Air for Cities – Perspectives and Solutions."

REGISTRATION FORM

Cities Clean Air Partnership
City-to-City Cooperation (C³)



CITIES CLEAN AIR PARTNERSHIP

Desired learning area that your city needs

Please state learning area/s that your city needs. This should be in the context of an existing project, policy measure or air quality intervention that the city is already implementing or seriously planning to implement.

Describe the project/policy/intervention

Specific city-to-city cooperation need

Partnering period

Please indicate the estimated length of time that your city would like to engage in city partnering under the city partnering and to foster peer-to-peer learning.

3 months 1 year 6 months 1.5 years Other _____

How would you like to conduct technical exchanges through this city-to-city cooperation?

- Sharing technical information via email
- Webinars
- Teleconferencing or Skype meetings
- Face-to-face meetings
- Study tours
- Joint project planning
- Others, please specify:

What can your organization contribute to the partnership?

- Staff time
- Travel funds for study tours or in-person exchanges
- Funds to invite foreign experts
- In-kind resources
- Others, please specify:

Section D: Additional Information & Supporting Documents

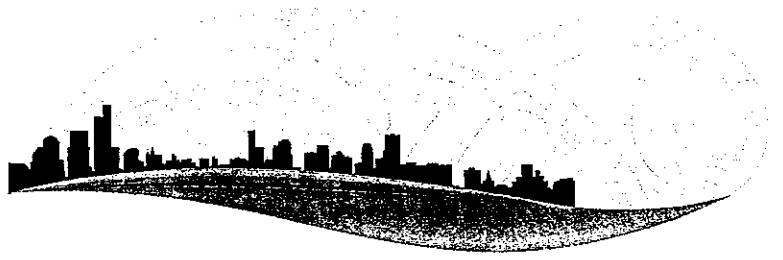
Please attach any information that may be helpful for a mentor city. This could include links to your agency's website, a recent emissions inventory, or local initiatives addressing air quality that will provide additional context.



CLEAN AIR
ASIA

REGISTRATION FORM

Cities Clean Air Partnership
City-to-City Cooperation (C³)



CITIES CLEAN AIR PARTNERSHIP

Name of City

Designated Point-of Contact

Alternate Contact

Name
Title / Position
Department/ Office
E-mail
Phone No.
(Office)

Phone No.
(Mobile)

Name
Title / Position
Department/ Office
E-mail
Phone No.
(Office)

Phone No.
(Mobile)

Feel free to provide additional contact persons on a separate page.

What does your city expect to accomplish through city-to-city cooperation?

This section aims to generate a broad indication of your city's priorities in the field of air quality management

- Emissions inventory of air pollution sources
- Air quality monitoring
- Clean air plan development
- Controlling emissions from diesel vehicles
- Reducing emissions from 2-3 wheeled motorized vehicles
- Port emissions management and control
- Controlling emissions from open burning of solid waste
- Managing emissions from power plants
- Managing emissions from industrial facilities (please specify)
- Controlling emissions from commercial cooking
- Controlling emissions from re-suspended road dust
- Controlling emissions from household cooking
- Setting up a public bike sharing system
- Pedestrian facility improvement to reduce transport emissions
- Promoting non-motorized transportation
- Citizen engagement in reporting polluting vehicles
- Improving enforcement of air pollution laws (please specify)
- Others, please specify:

City-to-City Cooperation

Cities wanting to be actively engaged in the city-to-city cooperation (C³) component of the Cities Clean Air Partnership must fill in the requested information below. Answers in this section will be given due consideration in the matching process.

Expertise that your city can offer

Please state area/s of expertise that your city can offer. This could be a demonstration project, policy measure or intervention which has shown to result in air quality improvements.

Describe the project/policy/intervention

What was achieved?

City-to-City Cooperation Guidance

Commercial Cooking

Reducing Emissions/Exposure from Small-scale Commercial Cooking

Selected References

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- ① Climate and Clean Air Coalition. Reducing SLCs from Household Cooking and Domestic Heating.
- ① International Energy Initiative, Asian Regional Energy Initiative. Clean cooking fuels.
- ① Ruchirawat M, Navasumrit P, Settachan D, Tuntaviron J, Buthbumrung N, Sharma S. Measurement of genotoxic air pollutant exposures in street vendors and school children in and near Bangkok. *Toxicology and Applied Pharmacology* 2005; 206(2):207-214.
- ① Sharit K Bhowmik, Street vendors in asia: a review. *Economic and Political Weekly* May 28-June 4, 2005.
- Shih-Chun Candice Lung, Chung-Rui Lee, Shu-Chuan Hu, Inequality of Asian-type neighborhood environmental quality in communities with different urbanization levels, *Environmental Science & Policy, Volume 38, April 2014, Pages 1–10.*
- ① Shih-Chun Candice Lung, Pao-Kuei Hsiao, Tzu-Yao Wen, Chun-Hu Liu, Chi Betsy Fu, Yu-Ting Cheng. Variability of intra-urban exposure to particulate matter and CO from Asian-type community pollution sources, *Atmospheric Environment Volume 83, February 2014, Pages 6–13.*
- ① World Bank Group. *The State of the Global Clean and Improved Cooking Sector.*
- ① World Health Design, 2015 (published by the International Academy for Design & Health) *Designing healthy communities: the health impact of street vendor environments.*
- ① World Health Organization. November 2014. *Indoor air quality guidelines: household fuel combustion.*

City-to-City Cooperation Guidance

Commercial Cooking

Reducing Emissions/Exposure from Small-scale Commercial Cooking

Required Actions

- Mentor city provides Partner city with an overview of control measures to reduce emissions or exposure to emissions from commercial cooking.
- Mentor city helps Partner city explore appropriate control measures, such as using of exhaust equipment in street market food stalls and carts or using of cleaner cooking fuels.
- Mentor city works with Partner city to develop strategy to implement control measures. For example, develop city ordinance requiring street vendors to use exhaust equipment, or work with appropriate city office to reduce traffic in selected areas.
- Partner city identifies any issues that may present challenges to implementing strategy, like presence of illegal street vendors or enforcement issues.

Voluntary Actions

- Mentor city assist Partner city develops outreach programs to educate business owners about health impacts of exposure to cooking fumes and steps to reduce exposures by using of cleaner fuels, exhaust equipment on stoves, or by supplying cooks with activated-carbon masks, etc.
- Through outreach programs like distributing brochures and media messages, Mentor city assist Partner city educate the public about health impacts of exposure to cooking fumes and steps to limit exposure.
- With input from Mentor city, Partner city develops plan to work with trade associations to educate members about exposure to cooking fumes and steps to limit exposure.
- Other voluntary measures identified by Partner city based on consultation with Mentor city.

Cities Clean Air Partnership

www.cleannairasia.org/CCAP

CITIES CLEAN AIR PARTNERSHIP WORKSHOP



CITIES CLEAN AIR PARTNERSHIP

Air pollution is the world's single largest preventable environmental health risk. The World Health Organization estimates that in 2012, 7 million premature deaths were attributed to air pollution making it responsible for one in eight deaths in the world. Developing Asia is the most affected region, with 3.3 million deaths linked to indoor air pollution and 2.6 million deaths to outdoor air pollution. The good news is – proven solutions and roadmaps exist to significantly improve air quality in cities.

The Cities Clean Air Partnership (CCAP), a Clean Air Asia initiative, is focused on empowering cities to improve air quality year by year and step by step. CCAP works with partners toward the vision of "200 by 2020" - 200 cities, by 2020, as part of the CCAP initiative and on the pathway towards achieving healthier air quality. Through city-to-city cooperation, a voluntary city eco-certification (eco-label), and an experts' network, CCAP will stimulate the mainstreaming of clean air roadmaps and actions in cities. The pilot phase of the city eco-certification is set to be launched in 2016.

The CCAP workshop will start at least 25 cities on the pathway towards achieving better air quality starting with: Baguio, Bangkok, Cochin (Kochi), Colombo, Da Lat, Haiphong, Iloilo, Jakarta, Kaohsiung, Kathmandu, Kitakyushu, Malang, Pasig, Shimla, Siem Reap, Singapore, Taichung, Tainan, Taipei, Taoyuan, Ulaanbaatar, Varanasi, Yogyakarta and Yokohama. The US cities participating in the workshop include: Multnomah County (Oregon), San Diego and San Jose (California), Gaithersburg (Maryland), Delaware Valley Regional Planning Commission and Green Cities California.

At the CCAP event –

- Cities will be introduced to roadmaps to manage air quality (developing emissions inventories, monitoring and modeling air quality, assessing health and other impacts, action planning, communicating air quality to the public), mitigate and prevent air pollution from transportation, industry and power, indoor and other sources.
- The first set of partnering cities matched through CCAP's city-to-city cooperation (C³) program will be announced. Potential new partnering of cities will be identified at the event.
- The voluntary city eco-certification system will be introduced to the cities.

The 3-day program is organized by Clean Air Asia and hosted by the International Environmental Partnership. Clean Air Asia is an international NGO established in 2001 by the Asian Development Bank, World Bank and USAID, with the mission to promote better air quality and livable cities by translating knowledge to policies and actions that reduce air pollution and greenhouse gas emissions from transport, energy and other sectors.

For more information, please visit www.cleanairasia.org/ccap.



The Cities Clean Air Partnership is an initiative of Clean Air Asia supported by the International Environmental Partnership.



February 1, 2015

Asia Pacific Mercury Monitoring Network

APMMN's Goal: to advance the science of global atmospheric mercury monitoring, particularly for the Asia Pacific region.

As an outcome of the Atmospheric Mercury Monitoring Workshop (Taipei, Sept 10-12, 2013), we have begun operating the Asia-Pacific Mercury Monitoring Network (APMMN). The major objective of the APMMN is to assist countries in the Asia-Pacific region that have mercury environmental concerns, but do not yet have mercury monitoring capabilities. The APMMN is currently a mercury wet deposition monitoring network, with plans being developed now for measurement of gaseous concentrations for estimation of dry deposition.

The APMMN would promote sharing of information, data, and technologies among countries in the Asia-Pacific region in order to expand coordinated mercury monitoring capacity, cultivate a common understanding of mercury-focused policy-relevant scientific topics, and develop mercury datasets useful to regional and global atmospheric modeling.

Current membership includes Vietnam and Thailand (collecting wet deposition sample now), Indonesia and the Philippines (expected to start wet deposition monitoring soon), Taiwan (operating the common laboratory), Japan, Korea, the US EPA, NADP, and Environment Canada.

The APMMN currently has

- One common, written standard operating procedure,
- A quality assurance plan and data flagging procedures,
- A developing website,
- one regional laboratory (National Central University, Taiwan),
- regular operations meetings, and
- some basic funding for network operations.

To make this effort a reality, this network needs leading countries to promote and support the effort. These countries are the countries with well-developed monitoring capabilities for mercury (Tekran networks).

The Environmental Protection Agency of Taiwan is committed to this effort and network development. The U.S. Environmental Protection Agency and the National Atmospheric Deposition Program have pledged their time and effort to help the Asians design this network, hoping that the SOPs used will follow those in Europe and in North America so that consistency of measurements is assured.

We feel that cooperation in monitoring and data sharing between all East Asian countries would promote a better scientific understanding of the mercury issue within Asia and across the Pacific, and would benefit all countries. With data from the Atmospheric Mercury Network (NADP's U.S. based observations), East Asia cooperation would produce consistent measurements across Asia, the Pacific, and North America, and promote the full understanding of hemisphere-level transport of mercury gases.

Contacts

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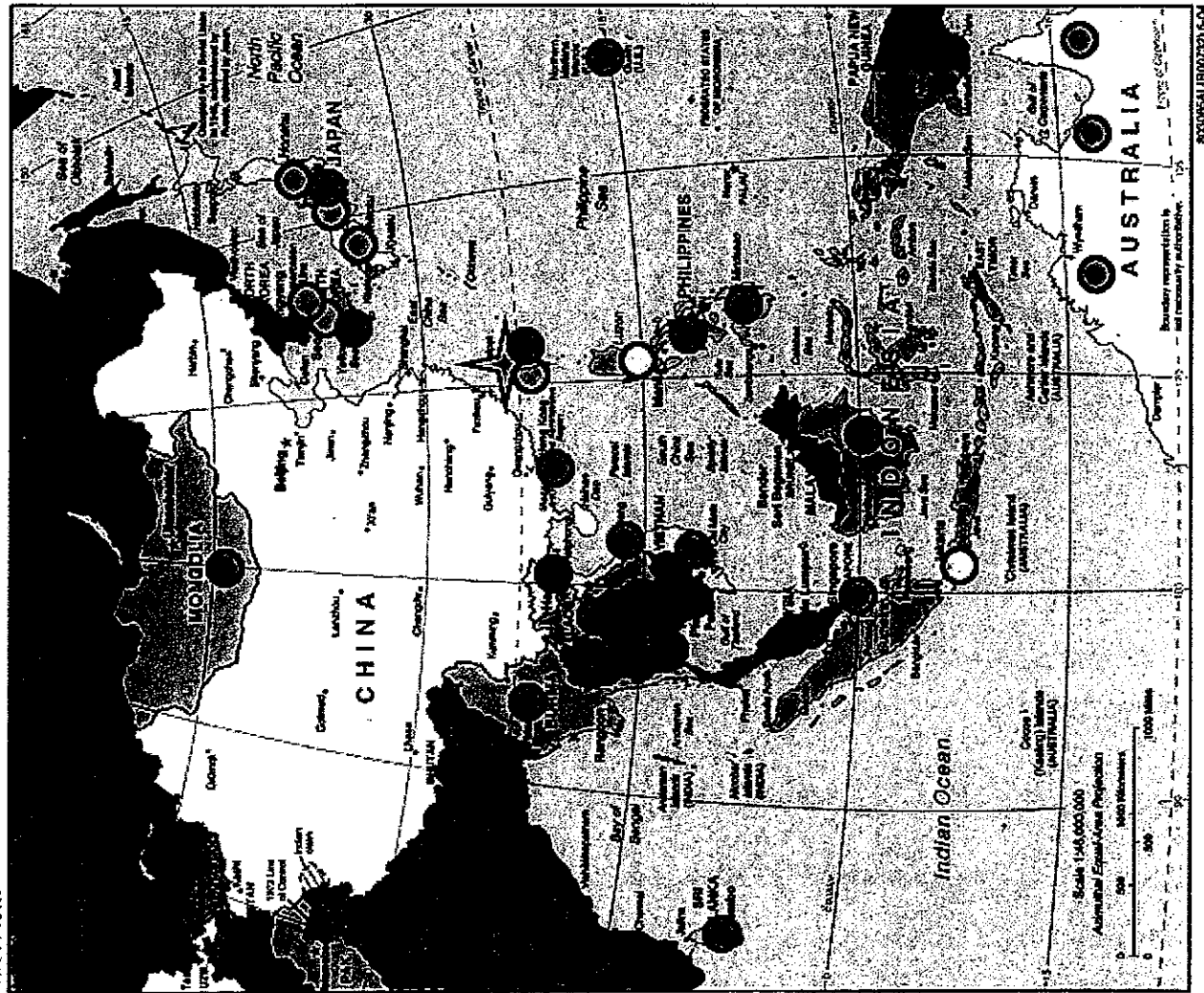
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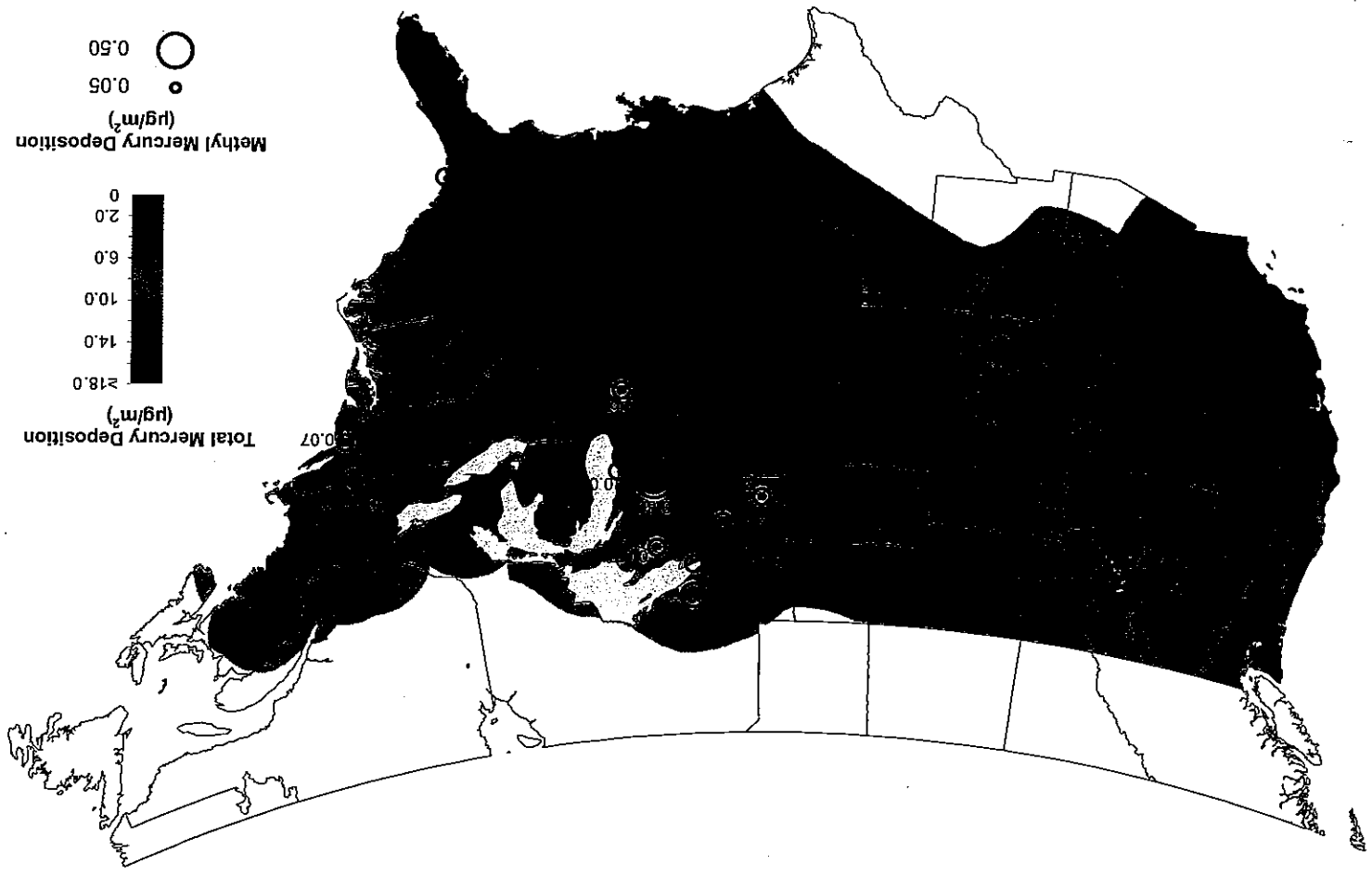
Asia Pacific Mercury Monitoring Network

Phase 1 & 2 Wet Deposition Sites

- Operating Sites
- Affiliated Sites
- Pending Sites
- Planned Sites
- ★ Laboratory



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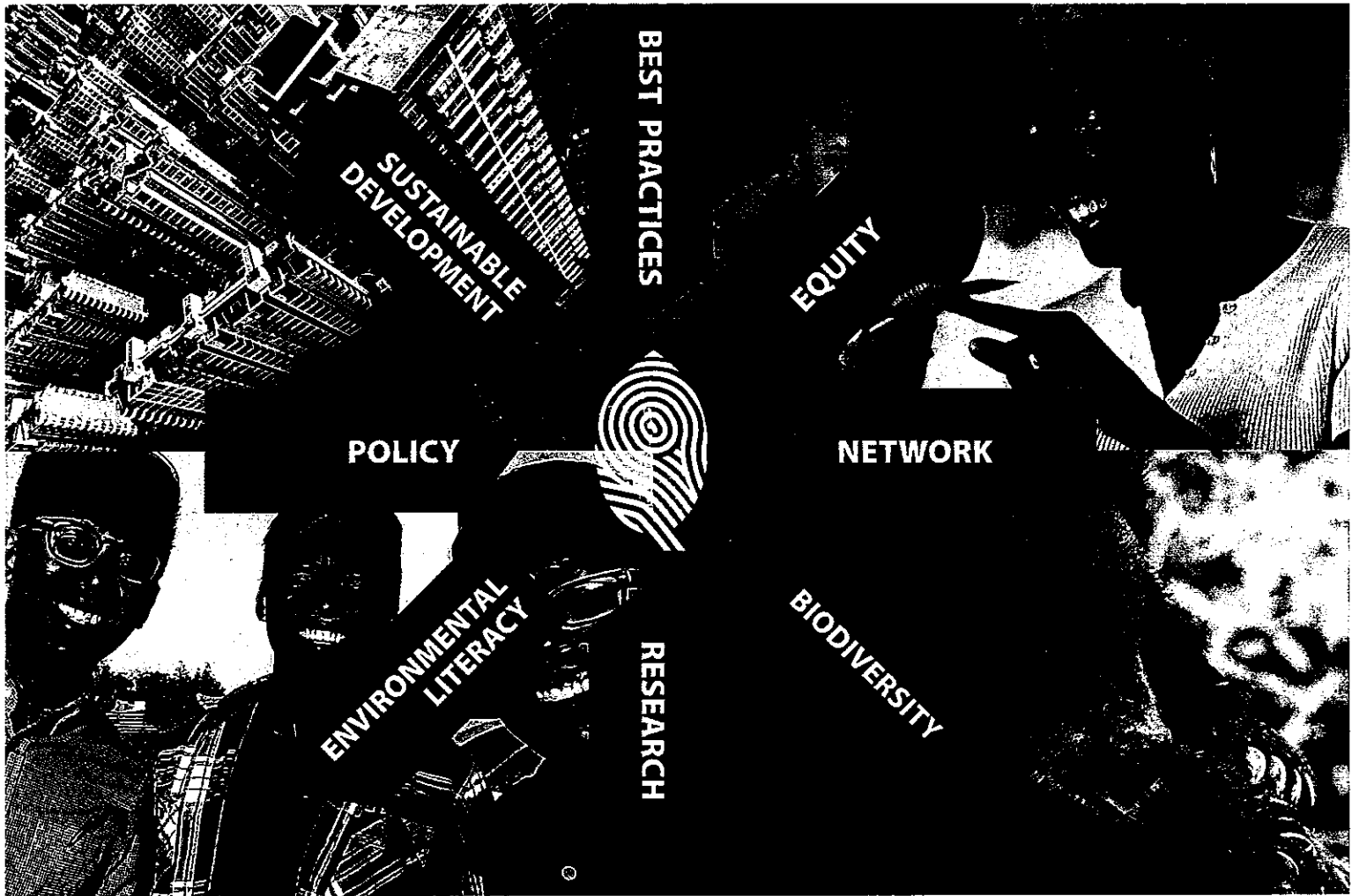
2013 Annual Summary

Geep

GLOBAL
ENVIRONMENTAL
EDUCATION
PARTNERSHIP

*Sharing ideas that create a more just and sustainable future
through the power of environmental education*

thegeep.org



It's a small planet with big ideas. The Global Environmental Education Partnership (GEEP) brings together leaders from countries around the world to leverage the power of environmental education to create a healthier environment for all.

Our Mission

To build a vibrant learning network designed to build capacity in member countries to strengthen, sustain, and institutionalize environmental education.

Our Focus

- Promote global expertise and share experiences on improving the quality, practice, and impact of environmental education
- Address the major obstacles to improving environmental education in member countries
- Expand the reach of environmental education by working with new and underserved audiences and communities

Who is the GEEP?

The GEEP is comprised of environmental education policy makers, providers, and practitioners who represent government and/or nongovernmental sectors in countries throughout the world. The GEEP was launched by the United States Environmental Protection Agency, the Taiwan Environmental Protection Administration, and the North American Association for Environmental Education in 2014.

To find out more about the GEEP, email us at info@thegeep.org.



naaee

North American Association
for Environmental Education

2013 ANNUAL REPORT

Education We Need for the World We Want

