



# GREEN MAP impacts

Reinvigorating communities around the world



Six New  
Stories  
Inside!

# GREEN MAP impacts



## Introduction

Now updated with 6 **new** stories!

Keiko Nakagawa (Director of Green Map Aichi) and Misako Yomosa (Executive Director of Green Map Japan, Inc.) conceptualized the **Green Map Impacts** book project in 2007 in order to help people worldwide see and understand the many tangible results that can stem from Green Mapmaking. The publication of a Green Map is not the end of the process, rather it is the starting point for a new appreciation of and engagement with community sustainability. With this book, you can feel the awareness and involvement of Mapmakers and their communities grow as positive environmental changes take place around the globe.

**Green Map Impacts** started out with articles from the Aichi, Japan region, the prefecture that hosted the successful nature-themed Aichi Expo 2005. This book then expanded to include a selection of global Green Map impacts. Each story is written by local experts and provides first-hand insight into how their Green Map projects impacted biodiversity, education, community building, public planning, workplace practices and more.

We hope **Green Map Impacts'** stories will provide guidance for improving the environment and supporting climate-smart actions in your community. We invite you to get involved locally by creating and/or using Green Maps, too!

Find more about each Green Map project at [GreenMap.org](http://GreenMap.org)  
Find this book and additional impacts at [GreenMap.org/impacts](http://GreenMap.org/impacts)

## What is a Green Map?

A Green Map® is a locally-made map that uses Green Map Icons to highlight sustainability sites, pathways and resources in communities worldwide. Green living, nature, social innovation and cultural sites can be comprehensively charted or presented as theme Green Maps designed for residents and visitors.

Whether printed locally or presented on the Open Green Map social mapping platform, each offers a fresh perspective and engages action for a sustainable future.



## Green Map Impacts

Published on 100% recycled paper by:

Green Map System  
PO Box 249  
New York, NY USA 10002-0249  
Email: [info@greenmap.org](mailto:info@greenmap.org)  
Tel: +1 212 674 1631



GREEN  
MAP  
JAPAN

Copyright © Green Map System, Inc. 2014

Green Map Icons and logo are copyright © Green Map System, Inc. 2014. All rights reserved.

Green Map® is a registered trademark and service mark of Green Map System, Inc. and is used with permission.





# Table of Contents



First published in 2009, the Green Map Impacts book introduced 10 global stories and 8 from Japan. In 2014, this book was updated with 6 new global stories, highlighted below:

- 1. Compost Map of Manhattan**  
USA - Regenerating NYC's Natural Environment with Compost
  - 2. Rokujogata Tideland Green Map**  
JAPAN - Protecting Tideland from Landfill Plan
  - 3. Green Map Kamakura**  
JAPAN - Finding Harmony in the City where Contemporary and Classic Live Together
  - 5. Victoria and Region Community Green Map**  
CANADA - Our Common Ground – Green Map Story and Community Impacts
  - 7. Pereira Green Map**  
COLOMBIA - A Hopeful Environmental Education Resource for Public Schools
  - 9. Tokyo Cycling Green Map**  
JAPAN - Promoting Bicycling with a Tech-savvy Green Map
  - 11. Green Map in over 60 Cities**  
THAILAND - Stop Global Warming Initiatives
  - 13. Green Map Icons - Version 3**  
GLOBAL CONNECTIONS - Green Map's Universal Symbol System Links All Sites and Maps
  - 15. Delta Electronics Green Map**  
INTERNATIONAL - Charting Change in the Workplace and Impacting 60,000
  - 17. Osu Expo Money**  
JAPAN - "Expo Money" and "2R": Advancing the Green Consumer with Two Green Maps
  - 19. Green Map Mandala Borobudur**  
INDONESIA - Preserve Traditional Culture Assets
  - 20. TanShui River Corridor Green Map**  
TAIWAN - Wetland Restoration in Taipei County
  - 21. Santa Monica and the Ballona Watershed**  
USA - Charting the Watershed, City and Bay
  - 23. Maioka Kashio Green Map for Seniors**  
JAPAN - Senior Views Unite Community
  - 24. Green Map Owariasahi**  
JAPAN - The Walkable Community: City Planning Through Green Mapmaking
  - 25. Hama Chari Road Map**  
JAPAN - Rediscovering the Human-Scale in Yokohama
  - 26. Dear Green Place**  
UNITED KINGDOM - Reusables Categorized and Mapped
  - 27. Green Map Guangzhou**  
CHINA - Map Yeah! Studio – Making Green Maps all over Guangzhou
  - 29. Green Map Curitiba**  
BRAZIL - Mapping with the Academic Community
  - 31. Baltimore Green Map**  
USA - Discover. Enjoy. Learn. Take Action.
  - 33. Cape Town Green Map**  
SOUTH AFRICA - Cape Town: Green by Design
  - 35. Green Map Swiss**  
SWITZERLAND - Maps from Lakes to Mountains
  - 37. Uridongnae Green Map**  
KOREA - Open the Map, Hold the Earth
  - 39. More Unique Impacts**  
INDONESIA, CANADA, CHINA, CHILE
  - 40. Aichi's Many Green Map Projects** - Uniting the Prefecture & Green Map Impacts Credits
- 



# Regenerating NYC's Natural Environment with Compost

Green Map System | [apple@greenmap.org](mailto:apple@greenmap.org)  
GreenAppleMap.org  
Author: Green Map System



## Background: Green Map System's own Local Green Apple Map Project

The New York City Green Apple Map project is the original Green Map. The fifth citywide edition was published, in early 2006 with energy as its theme. A casual discussion about everyday efficiency led to the co-creation of the Compost Green Map of Manhattan in partnership with Lower East Side Ecology Center (LESEC). LESEC runs the island's oldest composting program, providing education and collecting the public's kitchen scraps and plant waste at Union Square Greenmarket, NYC's busiest farmers market.

Together, the two organizations put composting on the map because it is a great way for New Yorkers to save energy, reduce waste and help the environment. Compostables are naturally pro-

cessed nearby, and the resulting rich soil helps to beautify green spaces. The map charted drop-off sites and places to learn about composting at schools, community gardens and other public locations. Side two introduces waste separation and worm bin composting at home, work, school or outdoors.

The map's compost-colored design includes an interesting fact - it's 100% wind powered! Green Map System's office, the printer and the paper company all chose wind as their energy source. Both a PDF and 100% recycled paper editions were created. A Green Apple composting cycling tour and events with LESEC introduced this small but surprising map to New Yorkers.



Compost Green Map of Manhattan, first edition, 2006

## Impacts: Changing Waste Reduction's Status

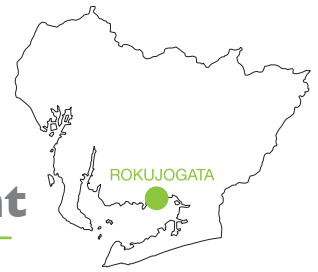
Composting gained respect and the map was in demand. By the time the second edition was published in 2007, the amount of compostable food scraps collected at LESEC's Greenmarket stand had tripled! The third edition includes a link to [OpenGreenMap.org/compostnyc](http://OpenGreenMap.org/compostnyc) where an interactive citywide edition

is taking shape on Green Map System's new social mapping platform. 30,000 printed copies have been distributed, and thousands of people have downloaded the PDF and visited online composting case studies.

Because of this map, staff at Green Map System put a worm composting bin in the closet to reduce waste every day! The organization has found that this narrowly focused Green Map is ideal for explaining the concept of mapping sustainability to beginners, and have shared the map's graphics and lessons learned though partnering with the global Green Map movement.







## Protecting Tideland from Landfill Development

Ise Mikawa Bay Area Network | a-ohya@sc.starcat.ne.jp

<http://www.isemikawa.net>

Author: Yoshie Usami

### Background: Reassessing Coastal Natural Resources

Unlike rivers and streets that are closer to our lives, changes in the sea coastline are harder to detect. A community group decided to work to protect the coastline, and formed the Rokujogata Tideland Green Map project to assess the natural environment of Ise and Mikawa Basin on the coast of Aichi prefecture. The area's rich ecological resources were being destroyed by the city's development plan for continuous landfill development in this natural area.

Rokujogata Tideland Green Map (2006)



Ise Mikawa Bay Area Network

### Impacts: Green Map as a Communication Tool that Protects Endangered Environments

Rokujogata, a tideland located on the outlet of the Toyo River, is known for its clams. Aichi is proud to be the number one producer.

When the landfill plans were made public, the Green Map team spoke up, hoping to stop the plan by promoting the unknown treasures of the area and the possible damage the landfill could bring to the tideland and clam cultivation. As a result, the team successfully educated people on the issues. The media began to take interest in the issue and the landfill program came to a halt.



Clams are the treasure of Rokujogata



# Finding Harmony in the City where the Contemporary and Classic Live Together

Green Map Kamakura | to-kgm@excite.co.jp  
 Author: Shinsuke Shima, Kamakura Green Map



Shrine/temple site

## Background: Through the Lens of Four Distinct Eras

What is the most suitable and best way to promote the environment in the unique and historical city of Kamakura? With this question in mind, the Green Mapmaking team set the direction of the map as a resource suggesting a future model of Kamakura.

The mapmaking took place in large workshops with field research and discussions, while small groups and individuals collected missing information. A shared draft

map was filled gradually as the team collected more information.

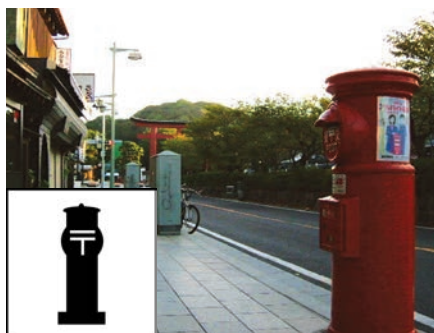
As the research progressed, the team realized each site belonged to one of the four different eras: The Original Natural Landscape, Medieval Era, Modern Weekend Resort Era and Postmodern Tourism and Residence Era. Each site's icon was placed on a color-coded flag indicating its era. Several local icons were created to highlight Kamakura's unique features.



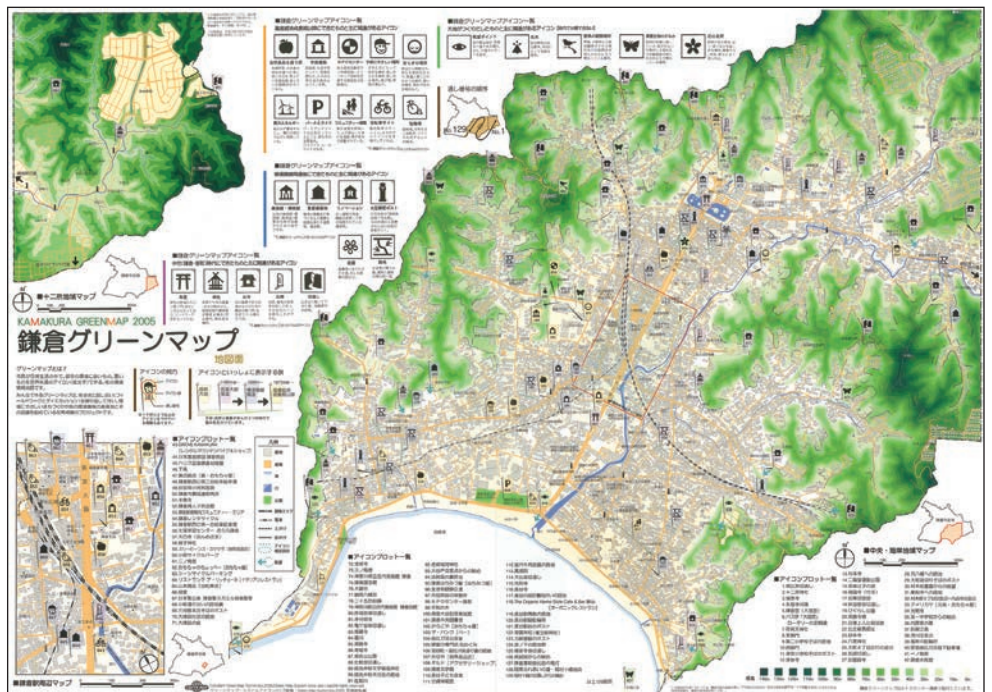
高度経済成長期以降	現代の観光・居住都市時代
横須賀線の開通	近世の別荘・保養所時代
若宮大路の築造	中世、武家の鎌倉時代
鎌倉の地形的特性	大地、自然

図1 鎌倉の代表的な時代区分

On-street sidewalk with local icon  
 Classic style mailbox (bottom)



Green Map Kamakura and color coding (right)





Original local and Green Map Icons



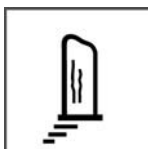
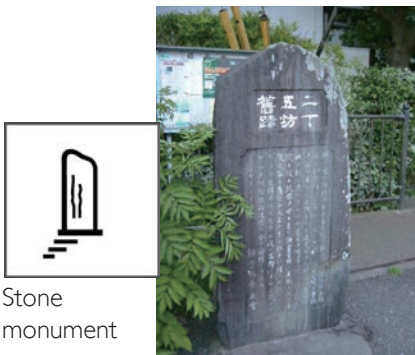
Curved pathway



Narrow back street



Architectural treasure



Stone monument

## Impacts: Kamakura's Hidden Charm Emerges

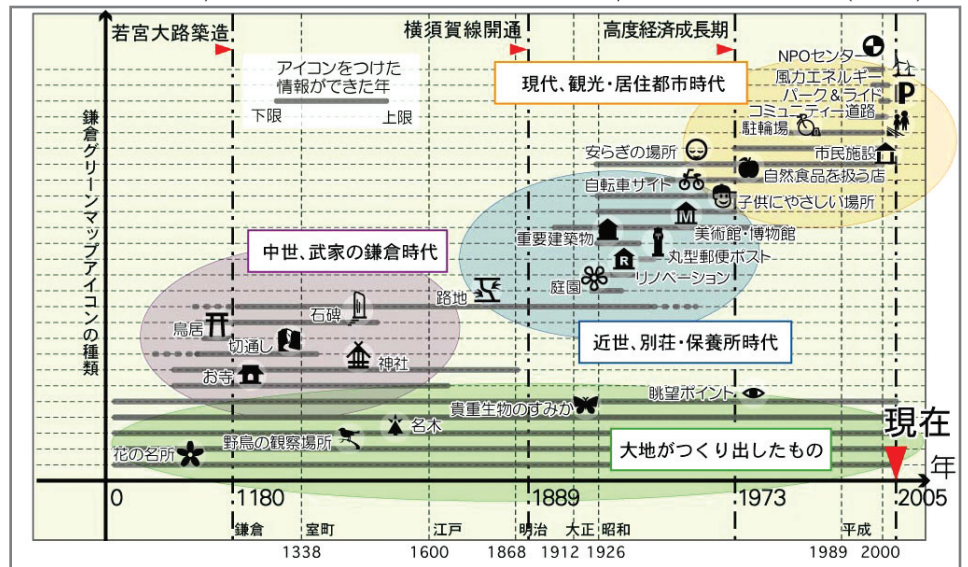
Through field research and categorization, the mapmakers began to define Kamakura's charm. It was universally agreed that the sites that the team had found were important to preserve and highlight.

More challenging than merely recognizing historical architecture such as temples and shrines, they worked to identify other important sites that represent the unique image of Kamakura. For instance, "Roji", narrow back streets, represent an era when wealthy Tokyo residents sought weekend houses in the area. Their narrow design was intentional, allowing pedestrians to walk without the interference of cars. Retain-

ing profound tranquility, the roji is exactly how Kamakurans remember those days. Also, the team paid attention to the decreasing number of classic cylindrical mailboxes, which were common during the Meiji era.

The map gave life to previously invisible sites and subsequently suggested guidelines for an improvement plan. Fresh concepts of ways to better harmonize the old and the new arose as a focus for the community. This idea was generated by the environmental analysis that took place during the mapmaking process. As a result, the map became the strategic tool to create the future of Kamakura.

History and site details on the back of the map date back to 1180 (below)



<p><b>西御門</b> この石門の一部は大蔵卿府と呼ぶその四方に門が建っていた。東門を東御門といったことから、帯を指す地名となった。</p>	<p><b>39. 海岸の駐輪所</b> 海岸沿いの広場跡にある駐輪場で、約200台分駐輪できる。休日の利用者が多く、広場内のベンチの利用者も多い。</p>	<p><b>40. 東宮由比ガ浜地下駐車場</b> パーク&amp;バスライドのバス乗り換え地点でここから鎌倉駅、鶴岡八幡宮方面へ移動できる。フクちゃんマークのバスが目印。</p>	<p><b>56. 鎌倉生涯学習センター</b> から鎌倉 鎌倉駅から歩いて3分の所にある市民生活、活動の拠点。生涯学習に関する情報の提供、学習相談、学習文化活動場所の提供、ボランティア人材紹介といった事業を行い、サポートしている。</p>
<p><b>二小学校そばの路地</b> この道路とさほど変わらないが、黒い生垣などその土台の鎌倉石が深い。大人3人が並んで歩ける</p>	<p><b>24. 八雲神社</b> 例祭には神輿渡御、神輿祭り(夜)が毎年行われ、祇園山ハイキングコースへの入口がある。平安末期、鎌倉の疫病除けとして創建されたのが始まりの大門の御守。</p>	<p><b>41. 一ノ鳥居</b> 鎌倉駅から歩いてくるとこの鳥居付近はゆるやかな上り坂になっている。そのため、徐々に視界が開けて、空の広がりや潮風に海を感じる。</p>	
<p><b>西御門</b> 別の石門と同様に、西に在る門を西御門といったことから、現在のこの地名となる。</p>	<p><b>25. 大町6丁目辺りの逆川</b> 鎌倉ホテル保存会が、日頃からホテルの生息に適した環境を維持、整備している。環境省の小動物保全区域に指定され、源氏ホテルやモクスガなども</p>		



## Our Common Ground – Green Map Story and Community Impacts

University of Victoria Geography Department and the Office of Community Based Research | [info@commongroundproject.ca](mailto:info@commongroundproject.ca)

<http://www.commongroundproject.ca/>

Author: Maeve Lydon, Common Ground



### Background: We Make the Place by Mapping!

The Victoria and Region Green Map project began in 1999 as the first spatial regional profile of community and environmental assets and initiatives. Common Ground's enthusiastic newly formed team of community activists, students and planners worked with dynamo cartographer Ken Josephson and the University of Victoria Geography Department.

Making a visually and symbolically beautiful map that accurately portrayed the region and honoured the richness of the indigenous First Nations heritage took five years to complete. First Nations artists provided the map's original place names and local native motifs, and the map includes colorful vignettes that illustrate how community mapping has applications from health research to ensuring that 20,000 pounds of fruit from backyard trees would be picked for food banks.



Victoria and Region Green Map (right)



(Left) Early Childhood "Play" Map" 2007

### What is Common Ground?

The Common Ground Community Mapping project began officially in 1998, stemming from several projects with local and global relevance and connections. A diverse group of people interested in sustainability, popular education, bioregionalism, green-, asset- and parish-mapping, aboriginal worldviews and rights, conservation, participatory learning, and GIS converged around the common interest in getting citizens of all ages involved in mapping and planning their communities. Together they named the project 'Our Common Ground.'





(Left) Haida Gwaii Map: Northern Haida Gwaii – (an unpublished community research project: “Mapping with First Nations” 2006

Common Ground also travelled to Cuba in 2003 and participated in Havana mural mapping with the outstanding Mapa Verde Cuba network. (below)



### Impacts: Join the “Mad Mappers Tea Party!”

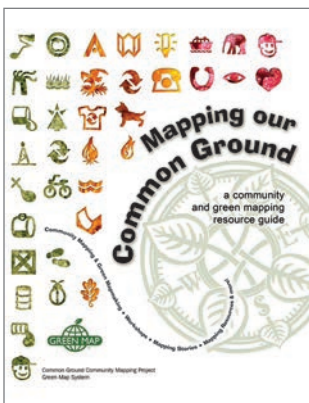
Green Mapmaking became a widespread regional networking and visioning process about sustainability involving 25 different groups as a result of Common Ground’s outreach. Hundreds of participants have gone on to develop smaller maps: schools, street recycling (binners), neighborhoods, sensitive ecosystems (Haida Gwaii). Seven other regional Green Maps have been printed to date; there is a webmap and our

“Mapping our Common Ground” book in English, Spanish (and soon, Portuguese!).

Participatory processes using maps began to be seen by institutional, community and academics alike as a viable planning tool and Green Map System greatly assisted in legitimizing that view. There is also an increased public awareness of indigenous place names, published for the first time on a regional map.

Common Ground’s next steps include more systematic training, a learning-based website, integrating community and Green Mapmaking into school and university curricula and connecting mapmakers in communities and universities throughout the Americas.

The work of Common Ground is never finished. The road is made by walking, the place (the map), is made by mapping...and the territory is infinite!



(Above) A booklet of mapmaking knowhow

The process of creating the map is as important as the product. (right)





# A Hopeful Environmental Education Resource for Public Schools

Fundación Geovida

carlos@greenmap.org / <http://mapasescolares.blogspot.com>

Author: Carlos Martinez, Green Map System



Mapas Verdes charting school buildings and surrounding areas made in 2007 (left). Students created a unique portable mural (below)



## Background: Green Maps as Environmental Tools for Low-income Youth

Under the leadership and interdisciplinary approach of Fundación Geovida, a Colombian non-profit organization, the primary motivation for this project was to help low-income youth express their concerns and hopes for the local environment to their peers, educators, older community members, journalists and policy-makers.

Pereira is a traditional coffee growing eco-region facing rapid and unsustainable development. Air and water pollution as well as threats to open and public spaces

are priorities, among other issues.

The project aimed to provide a holistic lesson plan with hands-on environmental activities appropriate for different ages and educational needs, tailored to one rural school, Institución Educativa Gonzalo Mejía Echeverry, and two urban public schools, Colegio Deogracias Cardona and Institución Educativa Suroriental Gustavo Arango Garrido.

Each school developed a "mobile Green Map mural" that was presented around their cam-

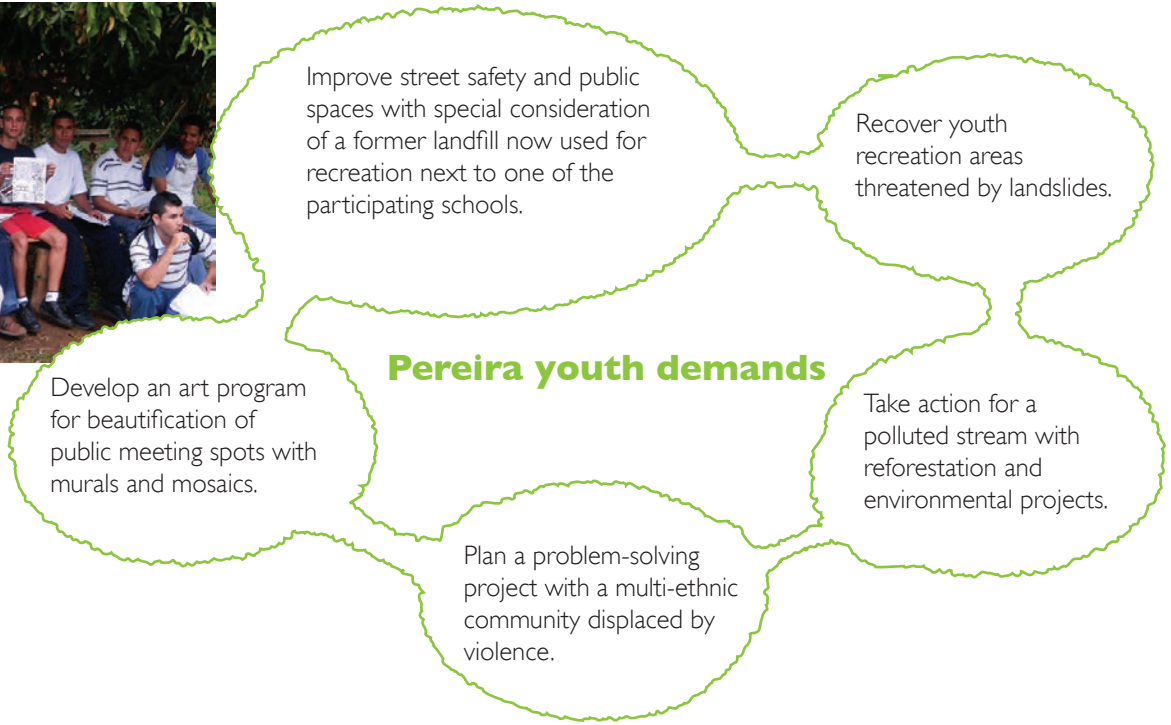
puses and surrounding neighborhoods. They distributed a total of 5,000 printed Green Maps.

As tangible outcomes, these maps offer a message of inspiration that increases the awareness of government and policy makers as to the demands of youth. Each passes on local knowledge as interpreted by the student mapmakers and motivates other communities in Colombia and around the planet to develop projects like this one.





Presenting the maps and findings



## Impacts: Creating a Colombian Model for Stronger Public Schools Linking Environmental Education and Community Development Networks

A massive number of young Map-makers participated in experiential trainings, environmental activities and workshops about the sites and situations they were charting. They became engaged in issues related to cartography; sustainable agriculture, food security, reforestation and hydroponics, recycling and waste management; eco-literacy, social responsibility and critical assessment; design and communications; arts and painting, etc.

Their field trips identified elements of natural and cultural significance as well as environmental justice hot spots. Youth became mentors, carrying their first hand experience into their homes and classrooms, multiplying the number of voices calling for action and change.

After the seeds were planted, it was time for harvest. Based on this pilot, Fundacion Geovida began building the foundation for the

adoption of a new contextual environmental curriculum in a growing number of schools, and developing a regional youth mapmaking network that will assist schools with their neighborhood Green Map projects.

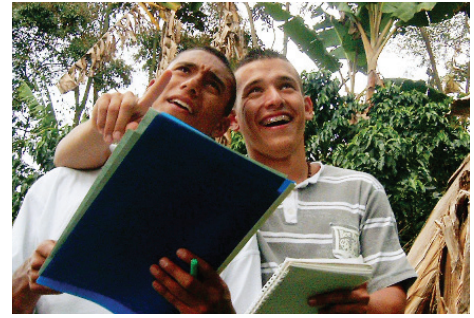
Fundacion Geovida is also planning an exchange program with Green Map projects in the global movement. Their aim is to share youth visions of their local environments, to understand the differences, and to develop solutions to common environmental concerns.

Impacts on the youth involved in this experience included the creation of their own sense of place and the facilitation of dialogue that transformed their views of the environment in both their academic and personal lives.

New skills include painting and visual communications skills, research, advocacy, leadership and

teamwork. The students also became active participants in a delightful online blog that promotes their perceptions and progress using new and traditional media tools.

The power of environmental communication has itself become a movement with a message, framed by the maps and their iconography. The messengers in this particular case are young leaders spreading knowledge and demanding a better, more eco-friendly world for everyone.



Young mapmakers in field research

## Promoting Bicycling with a Tech-savvy Green Map

Urban Ecology Tokyo, Tama Art University | [tokyo@urbanecology.jp](mailto:tokyo@urbanecology.jp)

<http://cyclingmap.jp/>

Author: Masahiro Horiuchi, Urban Ecology Tokyo



### Background: Sightseeing by Bicycle

It is popular among Tokyo residents to work hard during the week, then take a weekend drive to the countryside. What they don't realize is that the amount of gas used on their 100 km round-trip drive to Mount Fuji generates 35 kg of CO<sub>2</sub>. It takes three cedar trees a full year to absorb this amount of CO<sub>2</sub>. The Tokyo Cycling Green Map was inspired by a desire to promote alternatives to the weekend drive that would be fun and rewarding.

The first Tokyo Cycling Map offered information on bicycle repair shops, bicycle rentals and hot spas. Recommended cycling routes had fewer cars and traffic. These 'traffic calmed' routes were often missing from traditional maps, since those maps were usually designed with drivers in mind.

The idea was to make people feel comfortable taking a long distance trip by bicycle without having to worry about breakdowns or getting lost.

Soon, an interactive web version was set up for registered users to add new and useful information. The accumulated site and route information is then charted



(Above) The online map was designed to exchange information among bicycle riders in Tokyo area. It provides fun interactive experience.

(Middle) Traditional alley in Tokyo's Mukojima neighborhood. Bicycling provides a detailed view while sightseeing.



(Bottom) Tokyo Earth Day Ride that began in 2003 is now held every year on Earth Day on April 22.



and new printed editions are distributed to local newspapers, municipal offices, rental bicycle shops and at Earth Day events.



## Impacts: Accessible Design with Cyclists in Mind

The design process began by removing highways from the Tokyo Cycling Green Map since they were unsuitable for bicycling. Then colors were added to show elevation, which is very useful for cyclists. Interestingly, the map ended up looking like an old Tokyo map from the Edo period.

The project was partly funded by the Ministry of Environment, with recent support from Shimano Corporation. The Tokyo Cycling Green Map won the Good Design Award in 2007. The Mapmakers are excited by the project's success both as a city planning and personal tool. Future editions that expand the map are planned.



Tokyo Metropolitan Government sponsored 2007's "Stop Global-Warming Awards". The Green Map team won the "Modalshift" Award





## Stop Global Warming Initiatives

Thailand Environment Institute (TEI) | nongpal@tei.or.th

www.tei.or.th

Author: Nongpal Chancharoen



Green Maps from 25 cities were exhibited in Bangkok, 2006

### Background: A Climate Change Partnership Pairing Municipal Staff and Schoolchildren

Under the project called “Stop Global Warming Project”, Thailand Environment Institute (TEI) has worked with more than 50 local governments at the municipal level aiming to increase awareness about climate change. The project encourages municipalities to work closely with schools and the community to initiate activities that reduce energy consumption and greenhouse gas emissions, leading to a better environment in their city.

The Stop Global Warming project uses Green Map as a situation analysis tool to identify a city’s “strengths”, “weaknesses”, “opportunities” and “threats” using the icons

to visualize 4 main areas: waste minimization, sustainable transport, urban greening and energy efficiency.

Making a Green Map involves the community and youth through workshops organized by the municipality. Teams of students, teachers and municipal staff are established and TEI workshops train adults and activate camp for youth.

The project started in 2005 and to date, Thailand Environment Institute has introduced Green Map System to more than 60 cities nationwide.



Princess Ubonorat visited the Green Map exhibition on Earth Day 2006



Students survey their community to chart green sites and bad sites



## Impacts: From Situation Analysis to Strategic Plan

Working with local governments is challenging yet Green Mapmaking is an effective way of informing local authorities about the problems discovered. The project emphasizes cooperation between local governments and schools, with students representing the residents who live in the city. They provide ideas to improve their cities, such as bike lanes, public spaces, waste banks, recycling points etc.

Tungsong, a city located in the south of Thailand, started their Green Map in 2005, charting green sites and pollution sites throughout the city. People of all ages participated. A year later, Tungsong developed the second version of the map using an aerial map as a base map, which shows all the physical characteristics of the city such as parks, roads and waterways etc. Through the Green Map, environmental issues were pri-

oritized and local action plans were developed to address traffic, solid waste management, increasing green area, flood prevention and urban planning.

Trang Municipality, a tourist town on the Andaman Sea, used Green Map to promote “green restaurants” that avoid using non-degradable materials such as Styrofoam and plastics. It is hoped that more restaurants will join the initiative to reduce the waste going to landfill.

Using Green Map as a tool has helped local governments, NGOs, communities, and youth find realistic solutions, which often involve field research and input from the community. Municipalities can use Green Mapmaking to assist in their land-use planning and environmental local action plan to make their city a more sustainable place to live.



TEI's Green Map products may be available at [GreenMap.org/store](http://GreenMap.org/store)

Trang Green Map visualizes the city as a forest



Think Global, Map Local!

Globally designed, these award-winning icons are used by Green Mapmakers worldwide on locally printed editions and on interactive Open Green Maps.



GreenMap.org/icons

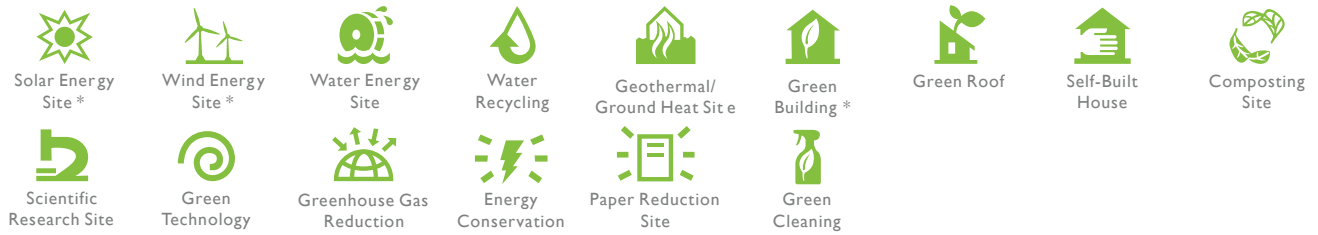
## Green Map® Icons Version 3

### Sustainable Living

#### Green Economy



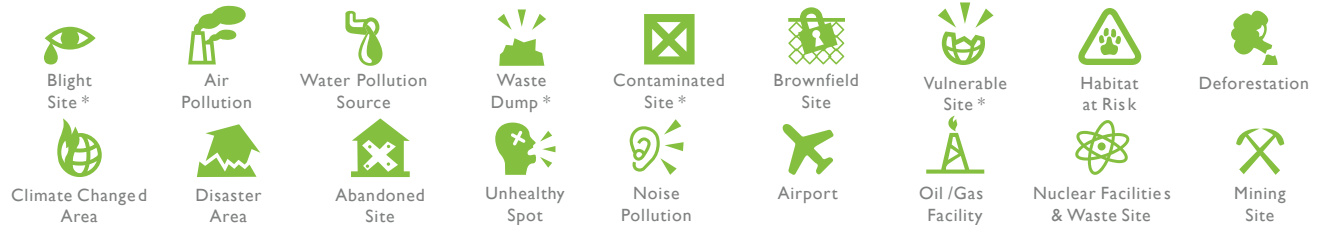
#### Technology & Design



#### Mobility



#### Hazards & Challenges



### Nature

#### Land & Water

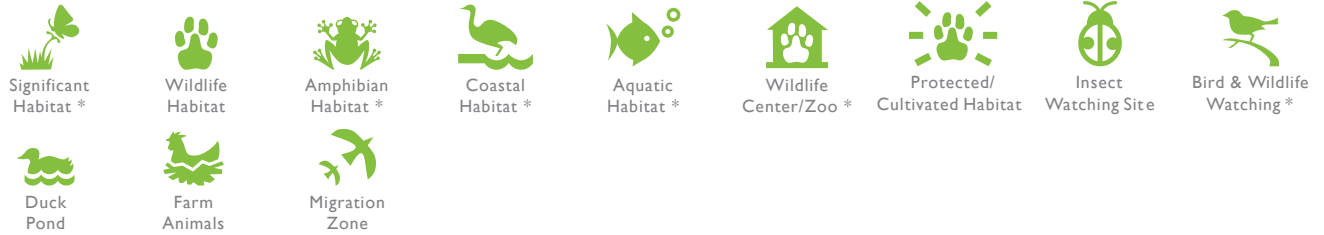




## Flora



## Fauna



## Outdoor Activities

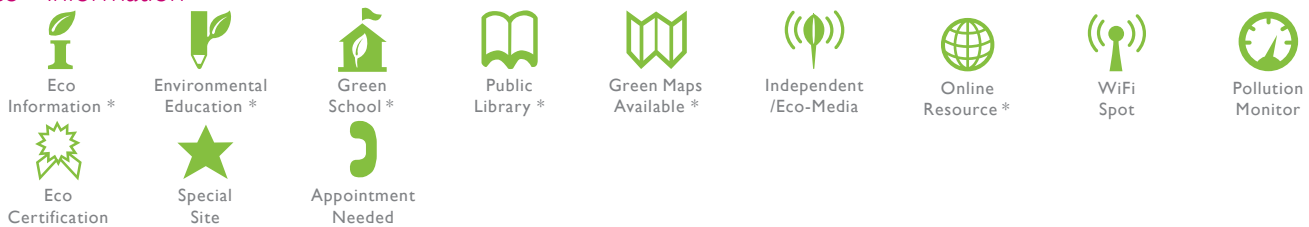


## Culture & Society

### Cultural Character



### Eco - Information



### Justice & Activism



### Public Works & Landmarks



\* Standard Icon Set

# Charting Change in the Workplace and Impacting 60,000

Delta Electronics | [vincent.chen@delta-foundation.org.tw](mailto:vincent.chen@delta-foundation.org.tw)

<http://www.delta.com.tw/csr/greenmap.asp>

Author: Vincent Chen, Delta Electronic Foundation

## Background: Raising the Morale of Employees

Around the world, most people work, but how much do they know about their work environment and their relationship with it? In 2006, Delta Electronics Foundation sought a new way to respond to these questions. In collaboration with the Society of Wilderness, we introduced Green Map System's concepts to Delta Electronics Inc., a company with over 60,000 employees in over 35 locations around the world. With emphasis on energy and carbon reduction issues, Delta's aim was to enhance employees' overall environmental awareness and to encourage each individual to understand their ability to reduce global warming.

In 2006, the project got underway in five factory and office facilities in Taiwan and the mapping helped identify and implement ways to save resources and CO<sub>2</sub>. With good outcomes, sites in Asia, Europe, and North America got involved. In June 2007, Delta held

a best practices exchange and the company's Green Mapmakers from Taiwan, China, Japan, Thailand, US, and Netherlands gathered together to share their experiences and to tour extensive working and living facilities at our Wujiang, China plant. Delta's Green Maps chart areas ranging from a single floor of an office building to a 20,000-employee campus with a dozen buildings. Important environmental sites, such as an electric power recycling system, the plant's greenery, employee living areas and recycling achievements were presented on the maps.

By highlighting these green living resources and the company's commitment to environmental protection, the maps encourage employee and public participation in sustainability. The most impressive data is the amount of CO<sub>2</sub> emissions reduced as part of the process which can be found at the top of every Green Map. This is an achievement that can be appreciated by all.

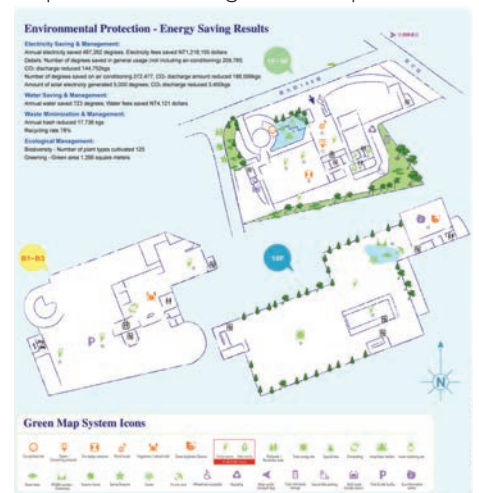
Pond habitat for indigenous wildlife



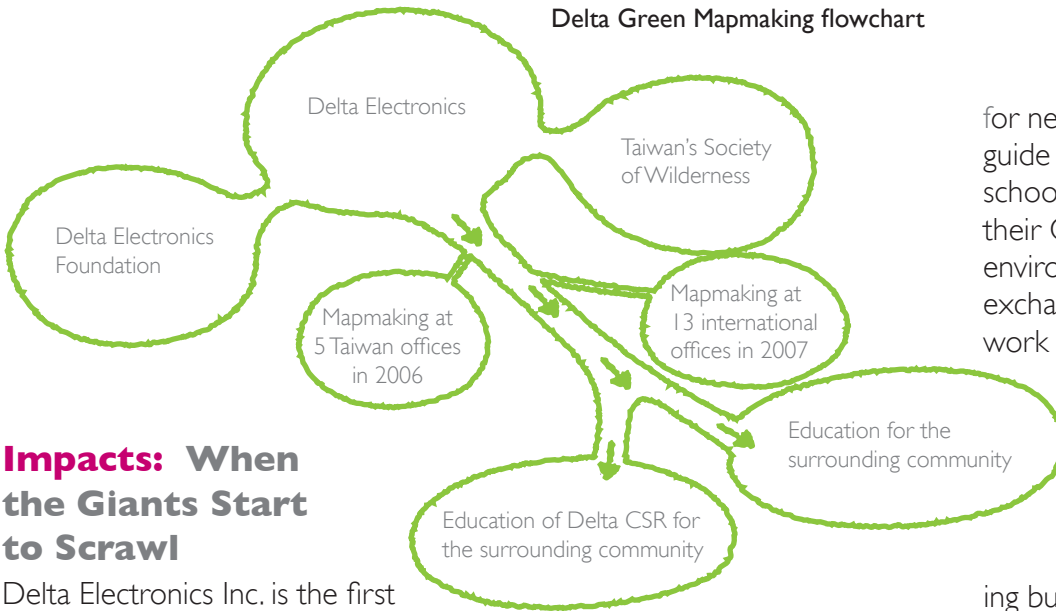
Solar PV system generates clean energy



A total of 336,211 Kg of CO<sub>2</sub> were saved through the process of creating Delta's Taipei Office Building Green Map



Delta Green Mapmaking flowchart



**Impacts: When the Giants Start to Scrawl**

Delta Electronics Inc. is the first company in the world to adopt Green Map System as a tool to conduct internal environmental education and facilitate work efficiency improvements across the board. Delta's Green Maps are used as a platform to help its employees understand their work environment and issues related, not only to industrial safety, but also regarding employee wellbeing, energy and resource conservation. As a result, production costs and pollution have decreased, and at the same time, productivity and profits have increased. Furthermore, each Green Map aids in fulfilling important issues concerning Delta's commitment to corporate social responsibility (CSR).

Delta's Green Map has had the support of Delta's founder, Mr. Bruce Cheng and CEO Mr. Yancey Hai since the onset of the program.

Delta completed 13 maps charting their factories and offices worldwide in one year. Both the maps, created voluntarily by employees, and the overall mapmaking efforts were recognized by staff members at all levels.

Some of Delta's large-scale manufacturing facilities use their Green Maps as an orientation tool

for new employees and as a tour guide for visitors, including local school children. Employers can use their Green Maps to share their environmental understanding and exchange ideas that make their work environment more energy efficient and healthier. One example: Delta's green building factory in Tainan, Taiwan has been so well received by the public that there are visitors request-

ing building tours on a daily basis. This story is not yet finished. Utilizing the lessons learned from this project, Delta Electronics continuously strives to improve their employees' work environment. More recently Delta has launched an e-learning program that provides new employees the opportunity to learn how to make a Green Map, and bring its positive impacts to their homes.



(Above) Delta's interactive online e-learning tool is linked to [GreenMap.org/csr](http://GreenMap.org/csr)



Delta's Green Mapmakers in Taiwan (left) and Japan (right)





# “Expo Money” and “2R”: Advancing the Green Consumer with Two Green Maps

Osu Eco Map Project Team (Green Consumer of Nagoya, Green Map Aichi, Osu Business Association)  
 nakagawa@es-net.jp | <http://www.gm-aichi.net/active-map/osu-ecomap>  
 Author: Keiko Nakagawa, Green Map Aichi

## Background: Creative Collaboration between the Municipality and Green Consumer Groups

Following Japan's Aichi EXPO 2005, the Osu Green Map project was collaboratively created. There are two major ongoing eco-movements throughout Aichi prefecture related to the World Fair's theme of “Nature's Wisdom”, one being “Green Map”, and the other “Expo Eco Money”. Expo Eco Money is a point-based reward system for green activities such as bringing your own shopping bags. The Nagoya Municipal Office adopted the idea of creating a Green Map in the Osu shopping

district. This lively area has a wide variety of stores, cafes and public spaces, including two new reward redemption counters for Expo Eco Money points, which can be traded in for useful eco-products or trees planted in a CO2 reduction program.

Mapmaking started by strolling the Osu area looking for natural materials, repair shops and stores that sell items that are reused or recycled or in bulk, by weight. The team indicated these stores on the map using Green Map's universal



Osu's lively shopping district

iconography and newly created “Nagoya brand” icons. They also designed a program that rewarded shoppers frequenting these green stores with stamps that could be exchanged for Expo Eco Money.

Osu Eco Map (2007)



Nagoya brand's original icons are paired with Green Map Icons







**Impacts: Inspire College Students to Create Award-winning 2R Green Map and New Model**

Osu Eco Map's success is largely due to the concept brought together by the municipality, non-profit organization, and the local business association. The project also gained attention by the media as a eco-activity collaboration model for local business associations.

Moreover, the map's success and workshops provided local college students with inspiration to create the award winning "2R map" for the city's main shopping district,

Sakae. The students selected businesses based on the 2R concept such as a tea house where Japanese tea is served to bottles brought in by customers instead of disposable plastic bottles. The map was designed to attract young generation and named as "Oshare-eco Sakae 2R Map." (Oshare refers to being stylish in Japanese) The map won an award at ECOCON 2007, the national eco-activity contest among college students.

Oshare-eco Sakae 2R Map (2007) Stylish ("oshare") and "eco" combined

ECOCON Award and newspaper article featuring the project



'Bring your own bottle' is filled with tea at one of the eco-sites on the map



Field research presentation





## Preserving Traditional Cultural Assets

Peta Hijau - Green Map Indonesia | joeyakarta@greenmap.or.id

<http://greenmap.or.id>

Author: Elanto Wijoyono, Green Map Indonesia



### Background: Mapping our Cultural Heritage

Located in central Java Indonesia, Borobudur, a world heritage site built in the 8th and 9th centuries, is the largest Buddhist Temple in the world. Green Map Mandala Borobudur aims to explore the relationship between the temple and the living environment surrounding it, contribute a record of the area's natural and cultural diversity, and inspire more curiosity and reverence.

Begun in mid-2005, residents of Borobudur helped determine the most important sites to chart, with their stories serving as site descriptions. Led by Jakarta and

Yogyakarta's Green Mapmakers, the ongoing participatory process is supported by the Center of Heritage Conservation, Department of Architecture and Planning, Faculty of Engineering Gadjah Mada University Yogyakarta and Borobudur Tourism Network.



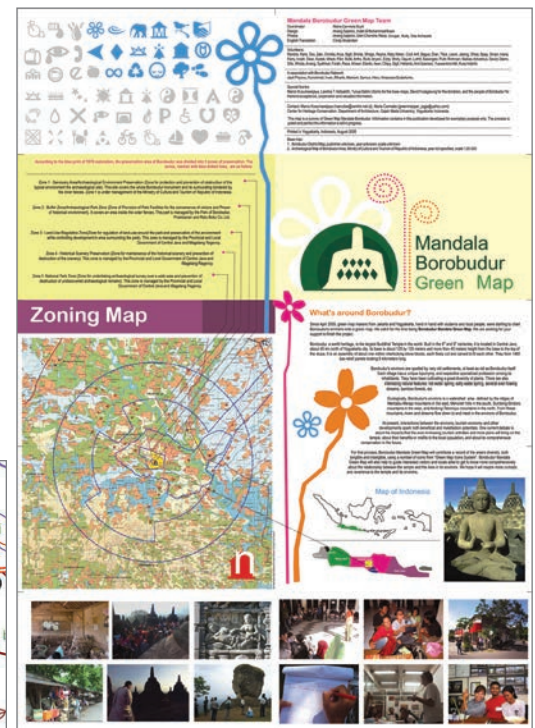
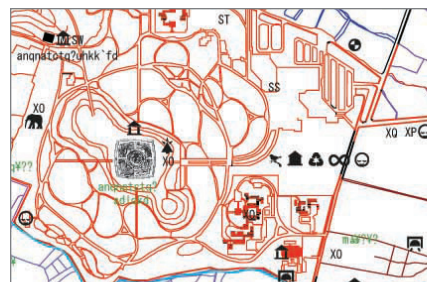
Field research (top), Interviewing residents (left), Discussion (right), Green Map in progress

### Impacts: Preserving Borobudur's Future

The Borobudur Green Map has generated important discussions about the future of the unique environment and communities around the temple. With participants' support, the Union of Indonesian Buddhist Students have demanded that the local government and investors stop exploiting the Temple with profit-oriented activities, and to protect this religious and cultural site. They highlighted Borobudur's role as the area's sole tourist attraction and the damage caused by visitors.

The comprehensive cultural landscape conservation concept formulated through Green Mapmaking strengthened the bargaining posi-

tion of the local community in the making of the masterplan. When completed, the Borobudur Green Map will introduce and offer alternative tourism options in villages around the temple, which will, in turn, increase the economic growth in the surrounding communities as well.



# Wetland Restoration in Taipei County

Society of Wilderness, Taiwan | sow@sow.org.tw

http://SOW.org.tw

Author: Society of Wilderness, Taiwan



## Background: Connection Between the Wetland and Community

Taiwan's Society of Wilderness (SOW) was founded in 1995 with objectives of nature education and conservation. Activated by more than 11,000 family members and many volunteers, SOW is a significant non-profit organization in Taiwan. Since 2001, SOW started to promote Green Map by training volunteer guides to assist mapmakers in charting their communities. 58 folding

Green Maps have been published to date, including city, community, school and corporate maps. In June 2007, SOW hosted the Asia Green Map Hub Meeting in Taipei.

In 2004, SOW adopted the wetland along the TanShui River from Taipei County Government. In the 1 square kilometer wetland, SOW carried out ecology restoration, education, research and investigation. For Earth Day 2007, 10,000 copies of the

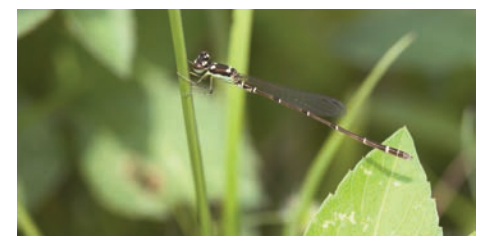
TanShui River Corridor Green Map were published. The maps are distributed to local people and visitors for biking, tours and teaching school outdoors.

Since the TanShui River passes through the center of Taipei, we expect that the wetland ecosphere is closely linked to communities. Therefore wetland conservation can be linked to citizens' daily life through Green Maps.



Creation of a floating island

Taipei County Wetland and TanShui River Corridor Green Maps



Mortonagrion Hiroseii Asahina - First discovered in Taiwan, IUCN has listed it as a threatened species



## Impacts: From 1 Square Kilometer to 2,052 Square Kilometers

Inspired by the TanShui River Corridor Green Map, a Taipei County Wetland Green Map is expected to be completed in 3 years, charting a total area of 2,052 square kilometers. Students and teachers will chart the wetland and community as a living circle, which encourages citizens to cherish the green treasures nearby. We also expect Taipei County's wetland habitats to be connected as a network to improve the existing environment for birds and other wetland animals.

Special thanks to Lai Rong Jiao, a high school teacher and member of SOW who is the key person behind the TanShui River wetland conservation and the Wetland Green Map.

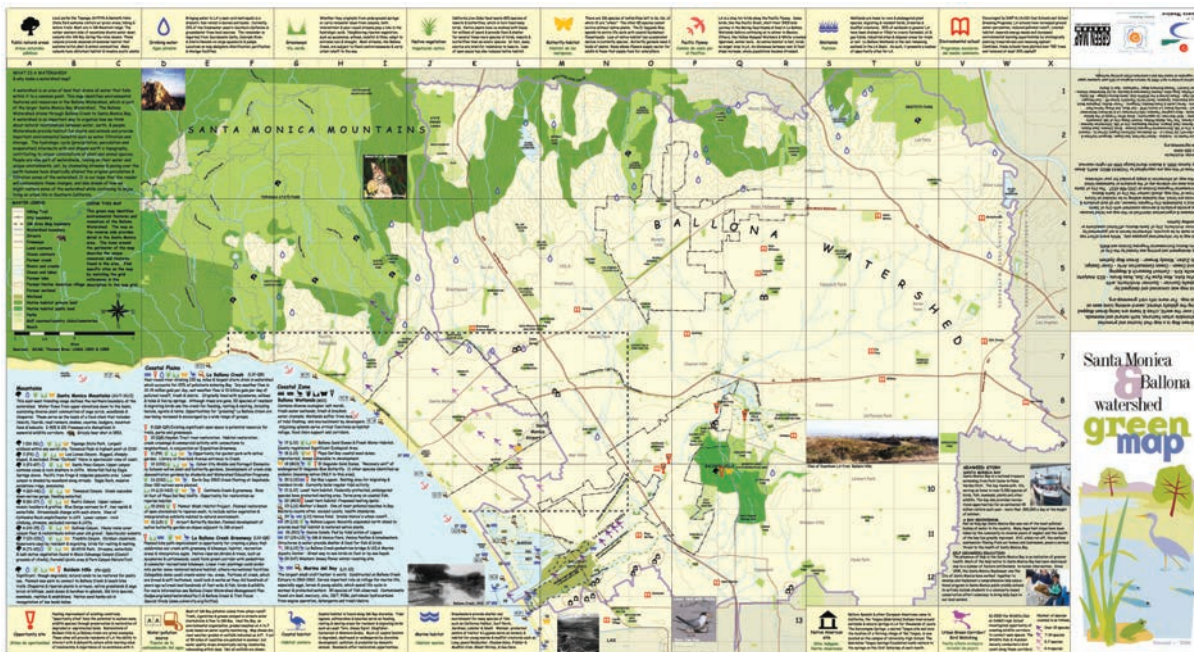


## Santa Monica and the Ballona Watershed Green Map

Duvivier Architects, Isabelle Duvivier | [isabelle@idarchitect.com](mailto:isabelle@idarchitect.com)  
[www.LAGreenMap.org](http://www.LAGreenMap.org) | [www.idarchitect.com](http://www.idarchitect.com)  
Author: Isabelle Duvivier, Duvivier Architects



### Background: Charting One of the Most Cinematically Depicted Land Masses on the Planet



Santa Monica and the Ballona Watershed Green Map

After completing graduate school in architecture, I returned to the city of my teenage years, Santa Monica, and began to discover the nature in my hometown. As I voraciously gathered information on native flora, fauna and waterways, I decided I had to make a Santa Monica and Ballona Watershed Green Map to help residents and visitors visualize the breadth and diversity of the local environment.

Visualizing a watershed on a map (as opposed to a city or other political region) gives us the unique opportunity to look at the relationships between water, earth, and people. Encompassing La Ballona

Creek, Hollywood, Beverly Hills, Santa Monica, Venice, Culver City and portions of Los Angeles, the map charts the largest wilderness within any world city, Topanga State Park, where one can still find mountain lions and bobcats. Thousands of birds stop in the Ballona Wetlands during migrations along the Pacific Flyway from Alaska to Mexico. In addition to open space and wetlands the Green Map also shows locations of endangered species, creek and rivers, former Native American sites and ocean water quality grades. With the help of Dafna Kohn, and support from the City of Santa Monica, all of these elements were mapped.

It is my hope that the reader of this map will see this region from a watershed perspective and appreciate the wealth of natural features we have as well as what we need to preserve, restore or recreate native habitat.





My Watershed, the Ocean and Me – A Kids' Green Map



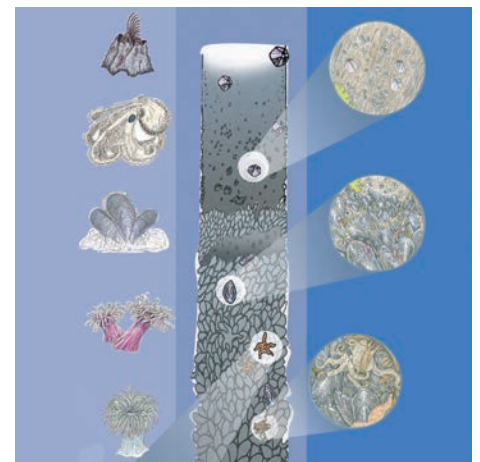
## Impacts: Connecting with Nature

The Santa Monica and Ballona Watershed Green Map is used by residents, tourists, teachers, students, non-profits and public agencies for discussions about water quality and conservation, habitats and the impact of non-native species, the consequences of sprawl and consumer choices on the natural and built environment, and the interconnectedness of our actions and policy decisions. Covered in the Los Angeles Times and other publications, the map is used by many organizations and is distributed at farmers markets, tourist bureaus, libraries and local businesses.

In addition to edible plant and watershed tours, our mapmaking has led to projects including the Malibu Creek Green Map (for our own Living Lightly in Our Watersheds Guide), the Santa Monica Col-

lege Green Map (by the EcoClub at Santa Monica College) and the LA Metro Green Map (for the American Institute of Architects conference). Most recently we published My Watershed, the Ocean and Me – A Kids' Green Map to explore and protect wildlife that lives under the Santa Monica Pier.

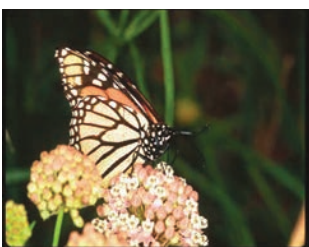
On a personal note, this mapmaking has had significant impacts on my career. I was awarded the City of Santa Monica's Sustainable Leadership Award in 2004 and the Chamber of Commerce's Sustainable Quality Award in 1999 and 2002 for my role in advancing the city's commitment to reducing its global footprint. Additionally the map led a state agency to hire me as a consultant facilitating restoration of the newly acquired Ballona Wetlands. Additionally, I have spent



the last year mapping all of Los Angeles County for a regional clean-up of impaired water bodies.

In the 3 years since the Santa Monica and Ballona Watershed Green Map was published, it has advanced understanding of our natural resources and has engaged the general public, especially young people. In the near future we hope to create more educational Green Maps of the entire Los Angeles Region.

Young mapmakers at the wildlife club (right) Ballona Watershed Wildlife (below)





## Senior Views Unite Community

Green Map Yokohama | rie-n@yk.rim.or.jp  
Author: Rie Nakamura, Green Map Yokohama

### **Background: Creating Community: ‘Silver’ Green Mapmaking from a Senior Citizen’s Vantage Point**

Based on the walking Green Map of Maioka Kashio created with the local middle school in 2006, Maioka Kashio Nursing Home implemented a Green Mapmaking project with the experiences of seniors as its main focus.

The map includes information on seasonal nature and social resources as well as nursing homes, hospitals, doctor’s offices, pharmacies, and other helpful services.

The Green Mapmakers used a wheelchair in their field research to assess and convey the impact of even the gentlest slopes on accessibility.



Maioka Kashio Green Map for Seniors (2007)



Maioka Kashio Walking Map (2006, below) became the basis for the seniors’ map



### **Impacts: Seniors Lead the Way**

The mapmaking project changed the attitudes of the local seniors, who often waited passively for useful information to be given to them. This project provided them with the opportunity to lead a hands on experience, gain useful information, and connect with various



generations in their community.

The field research team consisted of local nursing home residents and 38 students from nearby Maioka Middle School. The use of wheelchairs provided the participants with awareness of specific issues (slopes, elevators, wheelchair accessible restrooms and more) in their community. Some of the other senior-friendly sites charted include community stores, benches, and socializing spaces such as public bathhouses and barber shops.

Design inspiration came from the Yellow Pages phone book because of its familiarity and friendliness. An art student at Maioka Middle School made the colorful cover illustrations. The final product communicated warmth and friendliness thanks to the hand-drawn and lettered images contributed by volunteers.



# The Walkable Community: City Planning Through Green Mapmaking

Green Map Owariasahi | fwnh2388@mb.infoweb.ne.jp

Author: Yoshie Usami & Hiromi Wakasugi

## Background: Walking Research Yields Fresh Discoveries

The ideas that were first introduced by Owariasahi's Green Map team in 2003 continue to interest residents in field research walks. These walks allow participants to undertake research specific to their interests. Popular themes include nature, history, welfare, traffic, scenic and lifestyle, with each theme having its own route and brief introduction on a flyer. The teams host as many as 10 research walks a year. The collected data is shown on a Green Map made for the city's annual fair.



Encounter with a neighborhood historian during field research



Tutorial on how to use the broom plant



Owariasahi Green Map (2005)

## Impacts: The Green Map Contributes to City Planning

The Green Mapmakers' research was submitted to the Owariasahi Environmental Office. The city officials' improvement planning benefited from the detailed discoveries collected by the Green Map team. For example, a dumpsite on the

river was cleaned up only after Mr. Wakasugi and the Green Mapmakers brought it to the City's attention. When other citizen complaints failed to solve the dumpsite problem, the Green Mapmakers spurred officials to action. The map thus

became a resource and a source of support for environmental officials when asking the planning department for action. Mr. Wakasugi continues to participate in the City's workshops to contribute the planning expertise and awareness gained through this process.

Water quality testing based on the Mapmakers' environmental assessments



The Green Map has also been used to support careful development. The City conducted water quality tests based on the map's environmental assessment, and it led to the creation of a walking path in the northern forest of Owariasahi, connecting residents with the area's natural resources.



## Rediscovering the Human-Scale in Yokohama

Green Map Yokohama, NICE Yokohama, YC Document | [dezine@mail.goo.ne.jp](mailto:dezine@mail.goo.ne.jp)

<http://www.greenmap-yokohama.net/news/news060508.html>

Author: Ann Aoki, Takahashi Akira



### Background: Green Map = Bicycle Road Map

The compact Hama Chari Green Map of Yokohama's Bay Area is A3 size, 3 by 6 inches unfolding to 12 by 16 inches. Published by Green Map Yokohama, the back of the map was designed like a newsletter, featuring articles about the area's environment, culture and tourism. This free map was distributed at the seven rental bicycle stations in the Bay Area as well as in Yokohama's hotels and tourism information offices reaching both Japanese and foreign visitors.

The mapmaking project is a partnership involving NICE Yokohama organization and YC Document. Nice Yokohama is non-profit that runs "Hama Chari", a bicycle rental service that rents formerly abandoned, freshly repaired bicycles. YC Document is a local print shop that printed it at a "not for profit" rate.



Hama Chari Road Map & Green Map Yokohama (2006)

Yokohama Car Free Day



### Impacts: Expanding the Eco Movement Along with Yokohama Car-Free Day

Yokohama is part of an international circle of cities that host an annual World Car-Free Day. First introduced in France in 1997, Car-Free Day has since gained widespread support. Today, Car-Free Day is celebrated on September 22 by more than 1000 cities all over the world.

It's hard work for community groups to lead these large public events, a responsibility that is usually undertaken by the municipal government. However, Yokohama Car-Free Day was initiated in an office building where all associated organizations were housed, includ-

ing Green Map Yokohama and NICE Yokohama, both of whom helped plan, promote and celebrate Car-Free Day. Tasks included researching, designing and publishing the Hama Chari Green Map, developing public relations and addressing legal issues surrounding the elimination of cars from Yokohama's streets. In 2005, the team celebrated its first successful event. The car-free area will expand each year.

## Reusables Categorized and Mapped

Radius Glasgow | info@deargreenplace.org

http://deargreenplace.org

Author: Glasgow Green Map team

### Background: More than 100 Reuse Shops Discovered

Glasgow, Glaschu in Gaelic meaning “dear green place” is the largest city in Scotland. Despite the many parks and green spaces the city is far from being green in a truly sustainable sense. With a motorway extension underway and massive program of regeneration focused on developing Glasgow as the retail capital of Scotland, environmental sustainability is

consistently overlooked.

Given the city’s size, the first Glasgow-wide Green Map is a thematic map focusing on Reuse. Marketed under the brand Dear Green Place, it features over 100 charity shops, community enterprises and grassroots environmental organisations who provide reuse opportuni-

ties. The map aims to raise public awareness of this under-appreciated sector and the social, economic and environmental benefits they bring to the city.

20,000 copies of the Green Map are being distributed through a network of charity shops, libraries and community events.



Glasgow's Dear Green Place Map, front and back



Charity shop after charity shop, the mapmakers spent up!

### Impacts: Design Transformation

Icons representing 14 categories of household items have been created for the project. Arranged in a standard grid, they help people identify where to donate and buy reusable goods more effectively. In addition, graphics encouraging people to use public transport, cycle and walk were incorporated into the map.

The map has been developed in collaboration with the Glas-

gow Community Recycling Forum, Glasgow School of Art and Generous Scotland – a national program promoting waste awareness in charity shops. The project was coordinated by a small team of volunteer Mapmakers and supported by the creative organisation Radius Glasgow. To inform the design process, university students worked in charity shops and tested out design

concepts with customers. This is the first time that comprehensive information about reuse opportunities has been provided in such an accessible format. The project has increased liaison between the featured organisations and generated publicity for them, many of whom operate with very limited marketing budgets.

The data and design of the printed map formed the basis of a web-based version to follow.



# Map Yeah! Studio – Making Green Maps all over Guangzhou

Map Yeah! Studio | info@mapyeah.org

<http://site.douban.com/197013/>

Author: 方婉莹 (Cherry) | fresh.cherryscut@gmail.com



## Background: Youth and The City

Guangzhou is known as an international commercial metropolis all over the world. Unfortunately, it's rare that young people in Guangzhou are familiar with the city's long history, its profound culture and rich ecological resources. Guangzhou is the capital of Cantonese Culture and the center of Lingnan Culture which has a distinctive architectural and design style that define the Guangzhou cityscape, including its traditional buildings, gardens, lakes and hills. Preserving this unique inheritance in the face of widespread demolition and urban transformation is an

important issue for all who make this city our home.

Since the future of the city is tied to its youth, MAPYEAH! Studio decided to adopt Green Map's fun and engaging style with the hope that it will inspire the younger generation to rediscover Guangzhou through a 'green lens' and think deeper about the city's development future. We hope to create a more sustainable Guangzhou by educating the young generation with the Guangzhou Green Map project!

In 2010, we cooperated with Guangzhou Asian Game

Organization Committee to make the Guangzhou Rivers Green Map. To our great excitement, the Lenovo Venture Fund provided our Guangzhou Green Map Program with financial support! This was used to start our official non-profit, MAP YEAH! Studio.

Currently, we are mapping Liwan Lake Park, a beautiful park important to both Guangzhou's history and culture. In order to make Green Mapmaking be more accessible to young people and to those who are unfamiliar with it, we have designed a user-friendly Green Map tool kit.



Green Map of Higher Education Mega Center in Guangzhou, which shows the ten higher education campuses in the area, with a total of 120,000 students.





Green Map of Zhanjiang Techeng Island, made by Fresh Green Map to raise awareness for mangrove protection in the area (left)



Tanh, the Leader and main designer of MAP YEAH!, in the field (center)

Presentation of sketch maps created by university students promotes exploration and improvement in their community (right)

## Impacts: Deepening the Relationship between People and the Land

We have been publishing the Green Map of Guangzhou Higher Education Mega Center and the Green Map of South China University of Technology (SCUT) South Campus since 2008. In that time, over one hundred students took part in our project as volunteers. Our project was reported by a dozen of media outlets and thousands of students have benefitted from these maps!

We have also organized Green Map competitions in SCUT and the Liwan District. Teams that participated were asked to make their own Green Maps. Participants were mainly university students and families with children. First, we provided training for participants. Then the teams made Green Maps and shared their map story. Finally, we voted for the most popular Green Map. Through our efforts, more

and more people have discovered meaningful stories about sustainable development, along with ecological resources in the places they live and work.

Our goal for the future is to expand our current Green Map into a service platform, which will help more young people measure Guangzhou with their own two feet!

Groups of university students created their own Green Maps and shared their findings (left)



The MAP YEAH! Team and hiking around town to raise awareness for their cause (right)





## Mapping with the Academic Community in Curitiba

Federal University of Paraná | rafreis2@gmail.com & mcf@ufpr.br

www.ufpr.br

Authors: Rafael Alexandre dos Reis & Maria do Carmo Duarte Freitas



### Background: The Academic Community Working For the Environment

Seeking to educate the academic community on protecting the local environment and promoting the green sites of Curitiba, the Federal University of Paraná started the Green Map in 2009 to benefit the two million inhabitants of this south Brazilian city, which is known for its innovative and socially responsible environmental policies. Our Mapmaking team is multidisciplinary and includes undergraduate and graduate students studying engineering, architecture, economics, etc. We continually maintain this mapping project as it represents the perfect link between the academic community and the local society.

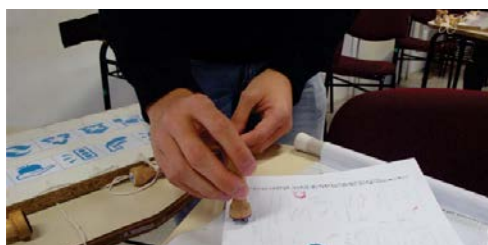
Attracting students from all parts of Brazil, our initial intentions were to involve the university community in the environment, generating discussions and interests that address the problems and virtues of our city. We created a Facebook page ([facebook.com/mapaverdecuritiba](https://facebook.com/mapaverdecuritiba)) and a workshop model in order to initiate the activities. In addition, to inform the general public and increase their awareness of the Curitiba Green Map, we set up a special booth at a 10-day event hosted by the Botanical Garden of Curitiba that attracted 4,000 people. Their interest, along with local press



Stamping Green Map Icons with custom rubber stamps (above and bottom left)



The Team at Green Map Curitiba, with Green Map founder, Wendy Brawer (above)



coverage of our project allowed us to realize the potential success of our Green Map.

Over the years, we expanded our social intervention by involving children of public schools in the workshops and creating other Green Maps. For example, "E-Campus Open Green Map," connected sustainable green sites available in and around Curitiba's eight university campuses.



Curitiba interactive Open Green Map and details on one site (above)



Green Map at 2013 Elecs Conference (left)

## Impacts: Innovative Methods for Mapping Green Sites and Engaging Students

In involving the academic community, Curitiba's methodology worked both to extract information about existing green sites and to stimulate environmental engagement in the local community. Workshops are held with groups of students from primary school to the undergraduate level. First, the Green Map project is introduced by a dynamic activity. Then, the students use hands-on collaborative mapping of all identified green sites using printed city maps and rubber stamps that represent the universe of Green Map System Icons. The team believes that this step is the most enriching of the workshop.

Lastly, to encourage conversation of sustainability and the identified sites, we conclude with a collective discussion. It's rewarding to see the changes of the participants' viewpoints regarding the region that surrounds them. Our work includes adding the best of these sites to the Open Green Map and taking part in a media campaign regarding illegal dumping of chemicals in the Uva River that was successful in getting Curitiba government to take action.

In the near future, we intend to expand the character of our online interactive Open Green Maps by showcasing sustainable buildings that exist in our city. This project is

motivated by the participation of Curitiba Green Map in the upcoming ELECS 2013, a major biennial event focusing on sustainable and natural techniques in the production of the Built Environment.

As Curitiba is one of the cities that will host the World Cup in Brazil in 2014, our focus now is also on the development of maps that will help tourists know about the green sites the city has to offer.

Lastly, our innovative education workshops at the Botanical Garden of Curitiba have resulted in a new partnership that will conduct mapmaking workshops at their facilities during the year 2014.



## Discover. Enjoy. Learn. Take Action.

Baltimore Green Map, Inc. | [jfelsten@baltogreenmap.org](mailto:jfelsten@baltogreenmap.org)

[www.baltogreenmap.org](http://www.baltogreenmap.org)

Author: Janet Felsten



### Background: Growing Baltimore's Sustainability Awareness

Baltimore's Green Mapping initiative started in 2005, born from the desire to highlight the many places and resources that contribute to making positive change in Baltimore, a city with wonderful assets and daunting challenges.

Baltimore Green Map's tagline "*Discover. Enjoy. Learn. Take action.*" succinctly expresses our mission.

Our Green Map goals have evolved from producing a single print map, published in 2008, to becoming an independent non-profit organization that utilizes Green Map Icons and concepts

in myriad ways. Our organization creates print maps and interactive Open Green Maps, consults on education and outreach projects for students from pre-K through university, and provides tours, displays and workshops for teachers and community organizations. With funding from Open Society Foundations, local foundations, government, businesses and individuals, we have been able to collaborate with park advocates, community and environmental groups, education and government agencies. Our website, usage of social media, and our continual

in-person networking are key means of reaching an ever-widening audience and developing more diverse partnerships every year.

In 2012, we used Kickstarter to crowd-fund the Druid Hill Park Passport that accompanies the Druid Hill Park Green Map. We partnered with Friends of Druid Hill Park and Baltimore City Department of Recreation and Parks. Attracting dozens of new donors, 214 people contributed toward production of 5,000 20-page passports. Baltimore Green Map continues to collaborate on the park's promotion and programming.

The Druid Hill Park Green Map was produced in 2010 to celebrate the park's 150th anniversary. It is part of our ongoing partnership with Friends of Druid Hill Park





Baltimore Green Map's range of projects include print and digital maps and a park passport to encourage exploration of a major park. The Green Map Icons are used as stickers to show activities completed

## Impacts: Involving Young Leaders in Local Resources and Opportunities

Among the first to appear on the Open Green Map 'social mapping' platform, our interactive maps have garnered over 70 comments and 60 new site suggestions. We are often surprised and pleased to hear, "I didn't know that was there!" from longtime residents. Because the platform allows the same site to appear on multiple maps, it's easy for us to quickly create customized maps for different audiences. Our maps are used as orientation tools for new college students, introducing ideas such as 'Buy Local' and low-impact means of mobility.

Our Recycle, Reuse, Share Map stimulates waste reduction and the local sharing economy. Our

annual event edition' for Baltimore Green Week highlights the venues and activities available during that time each April.

Based on reports from local map users and requests from visitors, it is clear that our printed Jones Falls Trail/Watershed and Druid Hill Park maps serve residents and tourists. These maps do more than highlight assets in this central urban watershed - the park map, for example has increased membership in the park's stewardship group.

We have worked with more than 350 school children, creating neighborhood walks, schoolyard surveys, and Sustainable City maps and models. Community Green

Maps address 1) how students define their neighborhood; 2) what they value and why; 3) what they want to change or add to improve their neighborhood. STEM topics – science, technology, engineering and math - are incorporated as the icons spark conversations and activities. Alongside academic benefits, the maps provide a meaningful vehicle to give students a voice in neighborhood planning issues.

One goal for the future is to develop a vibrant exchange with young Green Mappers in other countries as part of our education programming, embodying the *Think Global, Map Local* ethos of the Green Map System.

Baltimore Green Map Team (left)

First Graders make a plan for transportation options in their Sustainable City design workshop. BGM's school programs engage youth in mapping their own sustainable future (right)





## Cape Town: Green by Design

Cape Town Green Map | [arne.purves@capetown.gov.za](mailto:arne.purves@capetown.gov.za) & [philip@mapmyway.co.za](mailto:philip@mapmyway.co.za)

[CapeTownGreenMap.co.za](http://CapeTownGreenMap.co.za)

Author: Arne Purves & Philip Todres



### Background: Capturing a Unique Environment

As the first online Open Green Map in Africa to go live and subsequently be produced in a print version map, the Cape Town Green Map was conceived as a citywide initiative. Our map was launched to promote 'green' and sustainability as an informed lifestyle choice starting with the 2010 Soccer World Cup™ and intended to endure as a legacy project that proactively ties in with other mega events. A partnership between the city's Green Goal Action Plan of 2010 and a private company, A&C Maps, Cape Town Green Map aims to raise environmental awareness, promote responsible tourism, and provide

this invaluable source of information to the residents and travellers of our city.

The launch of our Green Map was especially memorable. The Cape Town Green Map website had an innovative, carbon neutral, virtual launch on World Environment Day, June 6, 2009, simultaneous with global launch of the Open Green Map platform. The Mayor of Cape Town extended a formal invitation to the virtual launch – the first time that this had been done in the City's history.

The purpose is to engage a wide audience to create an open, interactive communication

platform for community projects and programs. Green Map Icons promote diverse green initiatives such as shark spotters, natural and organic markets, community food gardens and recycling initiatives, the Bicycle Empowerment Network (BEN), and Green Cabs. The maps showcase Cape Town's uniqueness in terms of World Heritage sites. For example, being part of a 'Biodiversity Hotspot' with the Cape Floristic Region globally recognized for its rich, diverse and unique flora and fauna. We are proud to announce that we have just exceeded the 400 mark of the number of green listings on our map.



Cape Town has shared its branding with other South African cities, like Johannesburg

The Cape Town Map in action with a view of Table Mt. in the background





Cape Town Green Map's 4th Edition featuring local green business, eco-friendly advice, and much much more



3rd edition of the Cape Town print map featuring Executive Mayor, Alderman Patricia de Lille on the front cover

## Impacts: Drawing International Attention to Cape Town

Following the 2010 Soccer World Cup™ event, Cape Town received the top Sports and Environment award from the International Olympic Committee, among other awards.

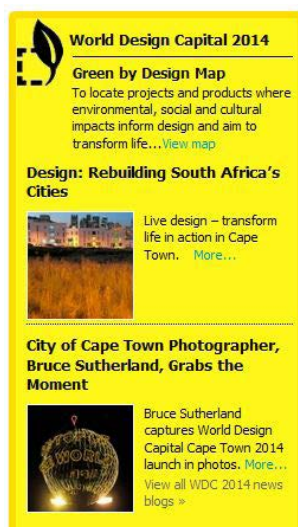
In 2011, South Africa hosted COPI7, the annual United Nation's Climate Change Conference in the town of Durban. The Cape Town Green Map contributed to the City's presence at COP 17, including

an educational outreach program on a train that travelled from Cape Town to Durban. In 2012, we participated in the Sustain Our Africa Summit. That same year, we also provided the template for our popular website to Johannesburg and began thinking about a national Green Map project.

The Cape Town Green Map was included in the Official World Design Capital 2014 Bid Book. Soon

after, Cape Town was shortlisted and Green Mapmakers helped host the judges' visit.

Currently, we are designing the 5th printed edition of the Cape Town Green Map. With this map, we are gearing up to play a role in the official World Design Capital Cape Town 2014 program that will include an International Responsible Tourism Conference in November.



Cape Town Green Map also has several interactive Open Green Map's which can be explored and added to by anyone around the world (left)

Cape Town Green Map's homepage features a WDC 2014 column, focusing on Green by Design (right)



The new 'Green by Design' icon has been added to Green Map System's global icon library. Designed in Cape Town by Design Infestation



## Maps From Lakes to Mountains

Earth Focus Foundation | nicola@earthfocus.org

GreenMapSwiss.org

Author: Nicola Spafford Furey



### Background: Helping Youth Grow Roots in a New Community

Since 2005, the Earth Focus Foundation has been building an all-inclusive, cross-curriculum education program entitled “Green Map Swiss,” where high school students gain awareness of sustainable development with hands-on experience in building a Green Map from start to finish.

Geneva attracts influential residents from from all over the world. Many of our students have lived in several countries by the time they are teens and most are newcomers to this city.

So far we have worked with twenty schools and have published six maps of Geneva’s communities. Because “Green Map Swiss” has

been so successful, we’d like to share with you the processes that these students go through.

In 2012, we organized mapmaking workshops for an area of Geneva called Petit Lancy, working with a private high school, the Institut de Florimont. Our intensive process begins with awareness sessions held in the classroom. Then we help students experience their community’s resources by exploring and mapping the area with monitors trained by “Green Map Swiss” to allow students to put knowledge into practice and gain personal connections with their community in a more sustainable way.

Before the workshop ends, we all gather around a table and begin composing the Green Map of Petit Lancy. Students, teachers, monitors, and Green Mapmakers discuss which of the many potential sites should be included, which icons are most suitable and how local government’s role in the community should be depicted. After the interactive Green Map has been made live to the public, students are taught how to update them annually. Finally, our finished map is displayed at the school and to the local authorities, drawing more awareness and demonstrating the progress toward a more sustainable Geneva.

The Green Map Geneva Team:  
Martin Andrysek,  
Nicola Spafford Furey, Youness Chtaini, Quentin Deville





Work in progress: Green Map, Commune de Lancy (left)

Presentation for Sustainable Development and Green Map (right)

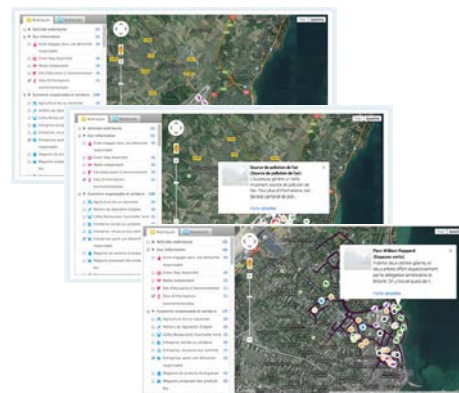


Interactive, digital Open Green Maps (center, below)

## Impacts: Continual Expansion, Beyond the City's Borders

Participating teachers are excited to teach the same program again next year with a new group of students who continue expanding the map. Each year, we share this system with other schools and age groups at events such as Step into Action, which is hosted by Geneva education authorities and attracts more than eight hundred students.

We are finding new ways to adapt to adult audiences and busi-



nesses, such as setting up a Green Map booth at the Sustainable Cities conference held in Geneva in May 2013. We are currently in the developmental stage of a new map that protects our natural resources. Currently, the Open Green Map for mountain resorts in Switzerland is being charted, focusing on areas such as Verbier and Davos, aiming to inform skiers and other visitors to respect and protect the our beautiful mountains.

Environment Day 2009 Exhibition for the public at our Green Map tent (left)



Green Map of the United Nations Area (right)





## Open the Map, Hold the Earth

Gyeonggi Province Local Agenda21 | ggag@hanmail.net

www.greenmap.kr & www.ggag21.or.kr

Author: 박윤경 (YoonKyung, Park) | Translation: 최원선 (WonSun, Choi)



### Background: 'Our Village' Impacts the rest of Korea

In 2007, the Gyeonggi Province governmental Local Agenda 21 office became interested in responding to climate change and encouraging local community involvement in sustainability initiatives. At the same time, Green Mapmaking was becoming a popular campaign for participatory sustainable development worldwide. We decided to create the Gyeonggi-do Green Map, which became the first printed in Korea. With its Green Map Icons, this project impacted both local and global audiences.

In 2011, the Gyeonggi-do Green Map project became our major resource for officially reactivating community movements under the banner of Our Village Green Map - 'Uridongnae Greenmap'.

Uridongnae Greenmap is made up of three elements: education and workshops, support for printed Green Maps, and promotion of online mapping. Using this framework, we have been educating more Local Agenda 21 officers, NGO activists and citizens every year. Moreover, we have developed an intensive workshop format (aided by Green Mapmakers from nearby countries), which has helped us build up our East Asian network as well as support networks inside Korea.

Overall, Gyeonggi Province Local Agenda 21 cooperates with 31 municipalities and numerous NGOs in our province. We started supporting the funding and coordination of Green Map education,

consultation and strategies in 3 regional areas in 2011. This number grew to 10 regions by 2012. By 2014, 24 regions have promoted Green Map projects, many of which touch on local issues that broaden the boundaries of Green Map activities through schools, contests, artists and more.

While taking part in these projects, we discovered the power of Green Maps: the ability to change perception and encourage personal growth, all the while increasing the value of this adaptable educational process that contributes to a more sustainable society on so many levels.

In Gunpo, a group of school children doing Green Mapping in the field

High school students making Green Maps in Bucheon



Green Map International Workshop in Suwon, 2012



## Impacts: Four Maps and Three Ways to Make an Impact

Green Mapmakers re-envision their communities and environment. Here are 3 examples of how different groups used Green Maps to better understand the past and build a more sustainable future.

### “The Town We Want to Live In” in Hanam City

In Hanam, the Local Agenda 21 office completed a unique project called “Imagine Our Town” by encouraging all the residents to share disappearing and forgotten stories of Hanam. The Green Mapmakers learned artistic drawing skills and then, one by one, drew distinctive, characteristic sites in their villages. These were used to let new neighbors know about the project. Legends (including the origins of the village names) and expressive, hand-painted scenes of the past and present made each edition even more interesting and readable. This creative Green Map ensures that the history of Hanam will not be forgotten.



### “Our Livable Town” in Songjeong district, Gunpo City

Among the participants in our 2012 contest, the longest-running Green Map project held the highest number of research sessions, twenty one! Various local cultural and environmental groups were involved in 6 planning meetings, 3 working sessions, and 2 trainings, all set against the backdrop of the disappearing Songjeong district. In order to draw public attention and encourage participation, 24 local icon stickers were produced. Interviews by young mapmakers enrich the Green Map, which was included as part of an ongoing local monitoring project, bridging the past and present of Songjeong.



### “Tracing Old Paths” in the Natural Village of Gwangmyung City

Over the past few years, ‘Uridongnae Green Map’ has collected the ‘living history’ of a disappearing eco-town based in Gwangmyung City. It aimed to encourage elementary school students and teenagers to develop local

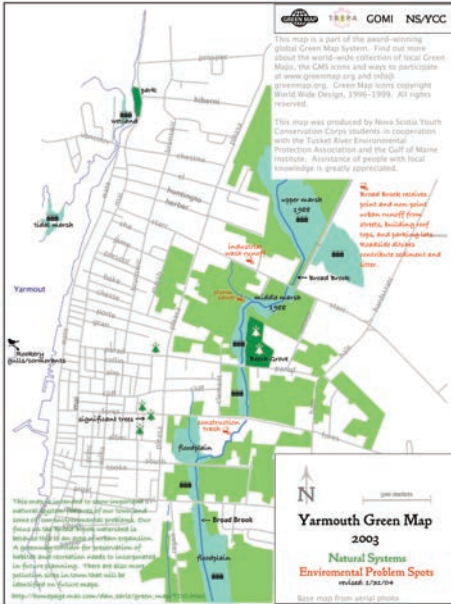


interests and understanding by producing a map as a board game. The ‘Tracing Old Paths’ Green Map is used in elementary and middle school classes. Through playing it, students naturally learn about their community’s rich history.



# More Unique Impacts

## City Planning Based on Youth Maps



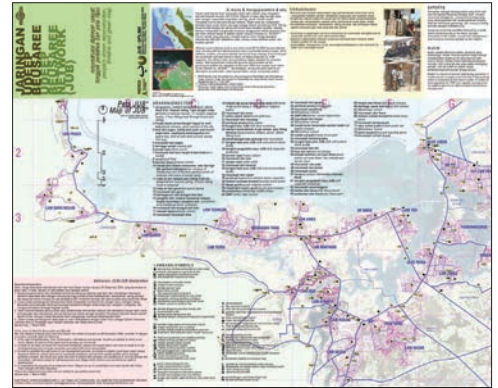
**Yarmouth, Nova Scotia, CANADA**  
- A series of youth maps provided a fresh sense of awareness to the community. This inspiration led to the conservation of rivers in the Broad Brook area. Currently, the team is proposing safe and attractive bikeways within town and a loop path through the Chebogue area.

## Protecting Mangroves

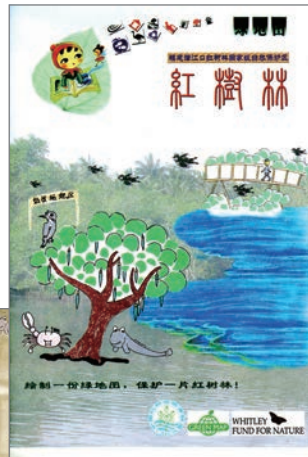
**Guangzhou, Guangdong province, CHINA** - Created by China Mangrove Conservation Network, this project introduces the coastal mangrove wetlands to the surrounding communities. Mangrove trees protect land from ocean waves and high tides. The Green Mapmakers hope to promote public awareness of the value of the mangroves through this Green Map project.

## Overcoming Disaster

**Banda Aceh, INDONESIA** - Banda Aceh Tsunami Memorial Green Map was created in a effort to rebuild an environmentally friendly future in the area destroyed by the tsunami of 2004. Both a memory map and a guide for planning, it was published one year after the disaster.



Banda Aceh Tsunami Memorial Green Map



Guangdong Coastal Mangrove Wetlands Green Map (cover and inside).

## Rediscovering Cultural History

**Santiago CHILE** - having published several different pilot maps, the Ciudad Viva (Living City) project created an inclusive process for creating a large scale Green Map of Santiago. The map includes heritage sites, recycling centers, eco-transportation and community organizations. Its cultural history section is called the "Map of Memories" for its unique content contributed by senior citizens.



**Page 27**

Read the updated Guangzhou story on page 27!



# Aichi's Many Green Map Projects

## Uniting the Prefecture through Green Mapmaking

Aichi, JAPAN - The World's Fair, EXPO 2005, was themed as "Nature's Wisdom" to promote environmental awareness. Green Map Aichi was established in November 2002 to support sustainable communities and citizens participation in EXPO. More than 40 local communities were involved and Green

Map Aichi created the necessary tools to assist in mapmaking, exhibits and public events at EXPO. Several of the projects in this book grew from this effort. Green Map Aichi's 20 members meet regularly to exchange information and teach each other on a continuing basis.



Green Map Aichi website

Aichi Green Map | nakagawa@es-net.jp  
<http://www.gm-aichi.net/>  
 Editor: Keiko Nakagawa

### Green Map Impacts

Original Edition Published by:  
 Green Map Aichi &  
 Green Map Japan, Inc., 2008  
 English Edition Published by:  
 Green Map System, 2009  
 Concept/Editor:  
 Keiko Nakagawa, Misako Yomosa,  
 Kumiko Yogo, Green Map System  
 Translation/Design for English:  
 Yoko Ishibashi & Aaron Reiss  
 Green Map Founding Director:  
 Wendy E. Brawer  
 Production:  
 Risa Ishikawa, Carlos Martinez,  
 Yelena Zolotorevskya, Julia Bocker  
 Advisory Council:  
 Green Map Aichi and  
 Green Map Japan, Inc.



GreenMap.org

Download this book and additional impacts at [GreenMap.org/impacts](http://GreenMap.org/impacts)



At work in Aichi (above) and New York (below)



All rights reserved. No part of this book may be reproduced in any form or by any electronic or mechanical means without written permission from the publisher or author, except in the case of a reviewer.

Every effort has been made to ensure the accuracy of the information in this book. Due to possible change in the activities and practice of Green Mapmakers, the publisher cannot accept responsibility for any errors that occur, or their consequences.







Think Global, Map Local!

