

Integrating Satoyama Principles for Better Watershed Management in Davao City (Southern Philippines)

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The Satoyama Initiative

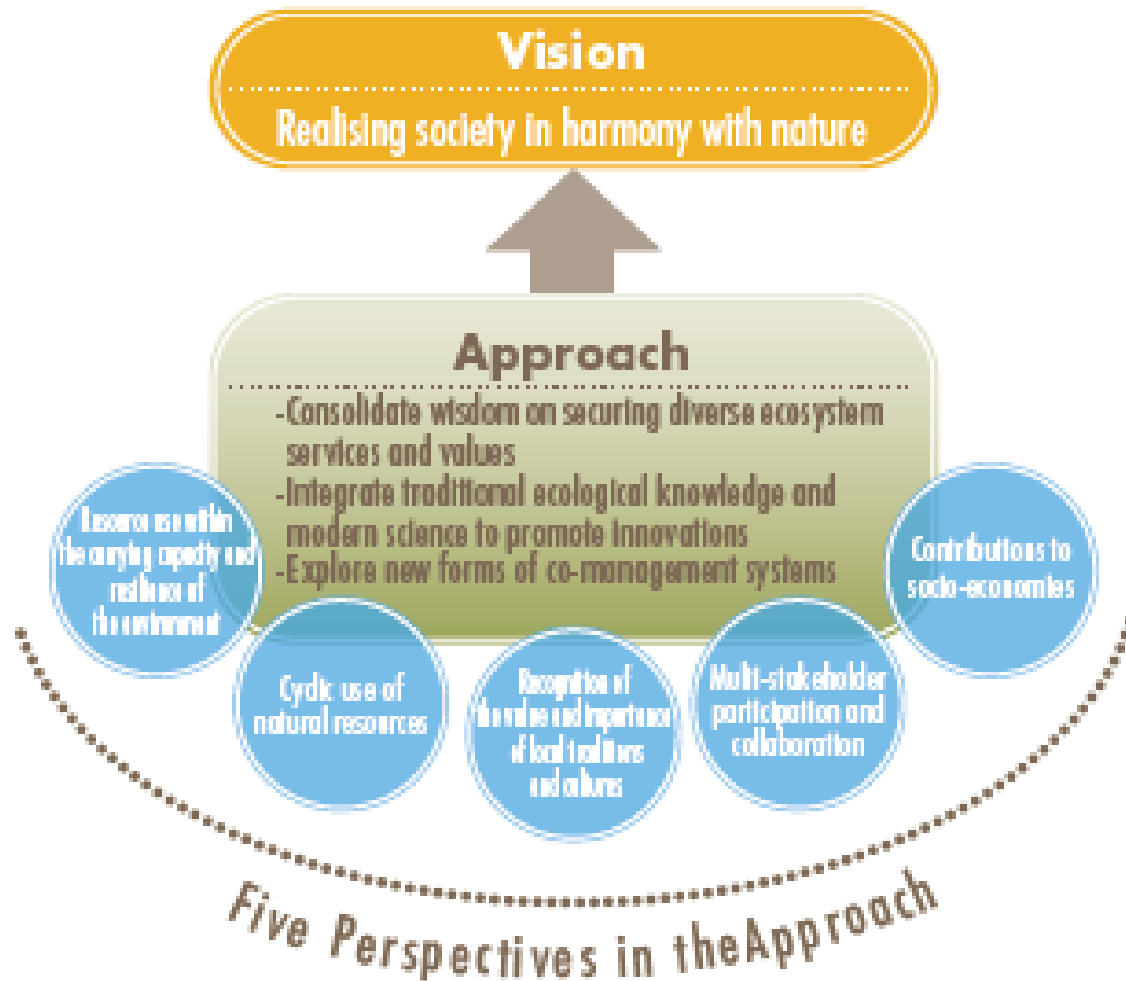
- a comprehensive effort to spread awareness that protecting biodiversity entails the protection of both wild and human-influenced natural environments, such as farmland and secondary forest, which have been maintained sustainably over a long time.
- an effort at thoughtful action towards the conservation and use of such human-influenced natural environments.

Satoyama Landscape

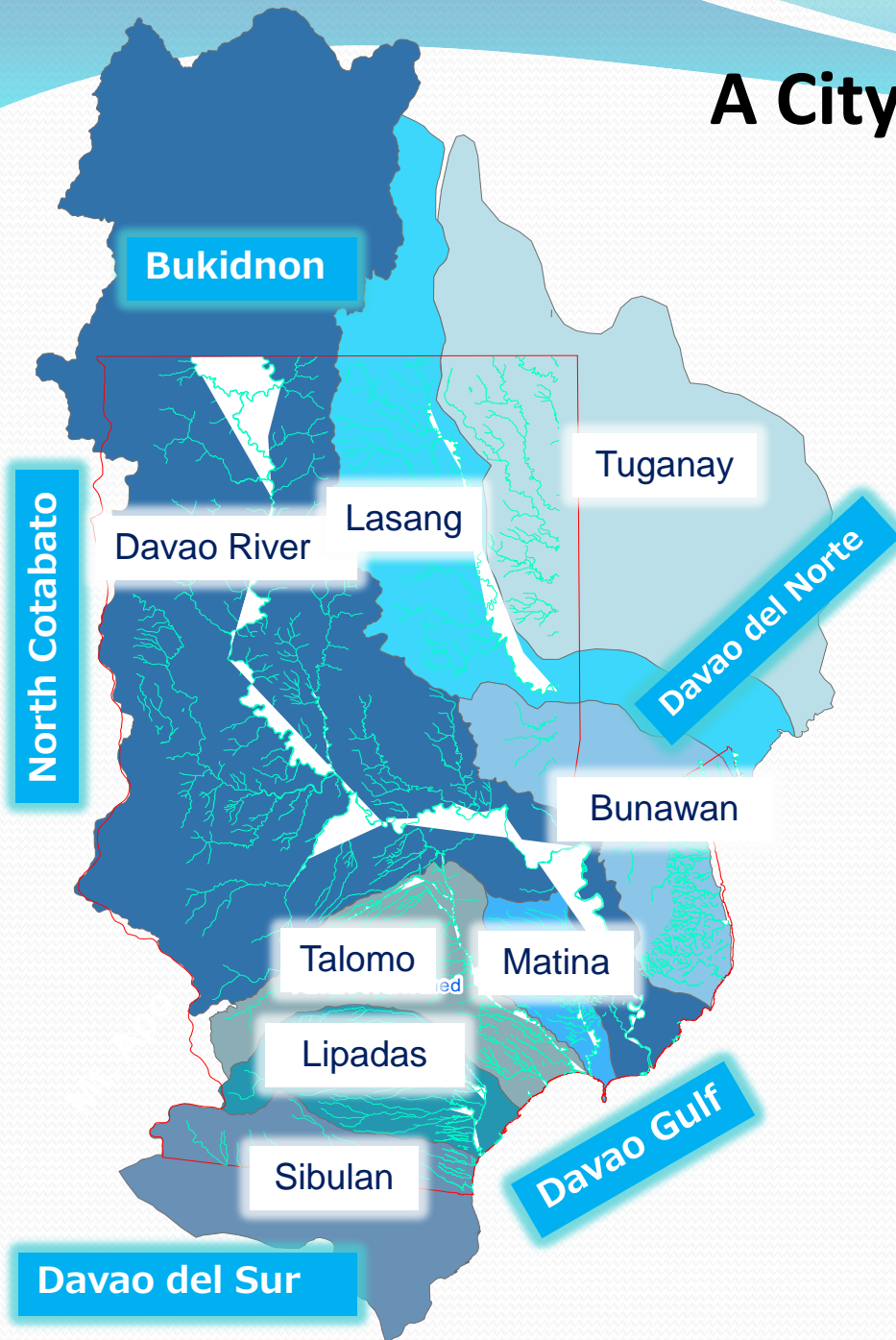


Satoyama: *An authentic Japanese landscape formed by man-nature interactions*

Vision and Mission

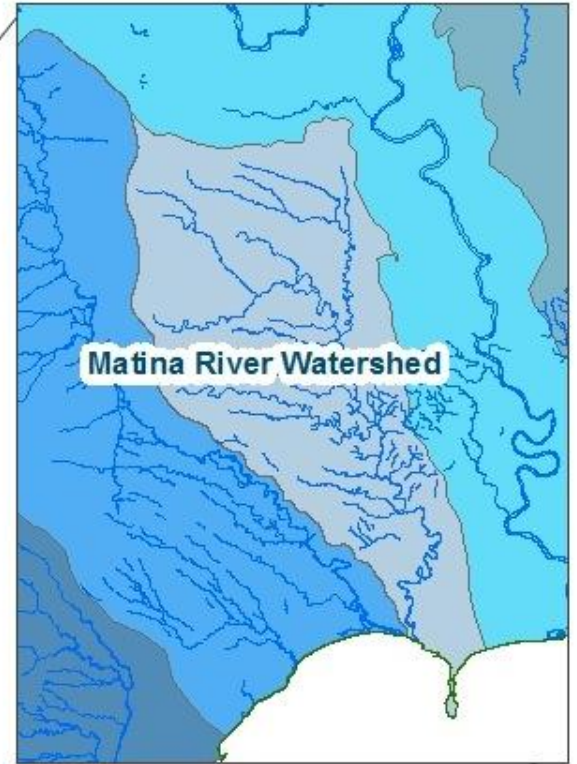
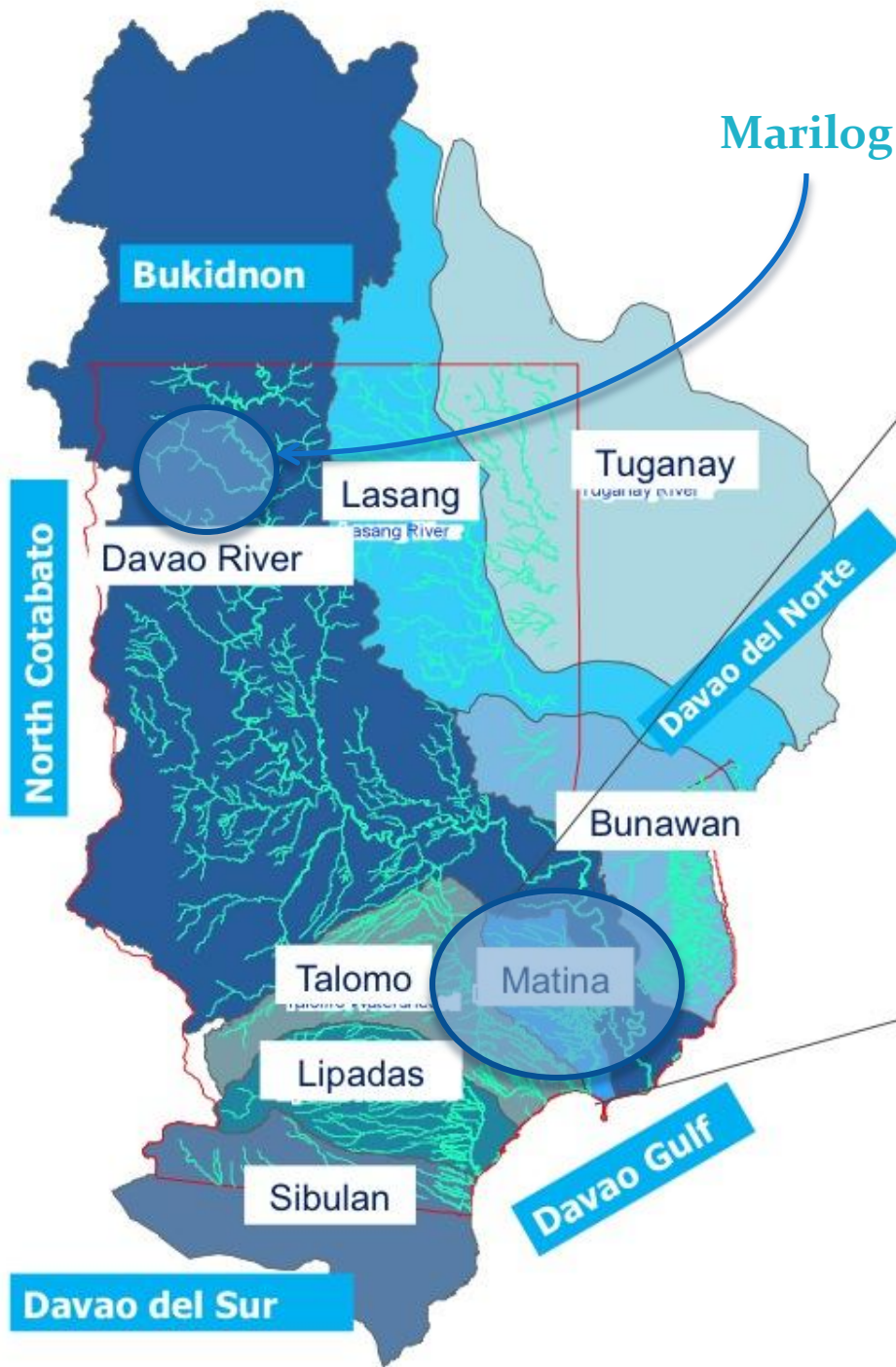


A City of (8) Watersheds

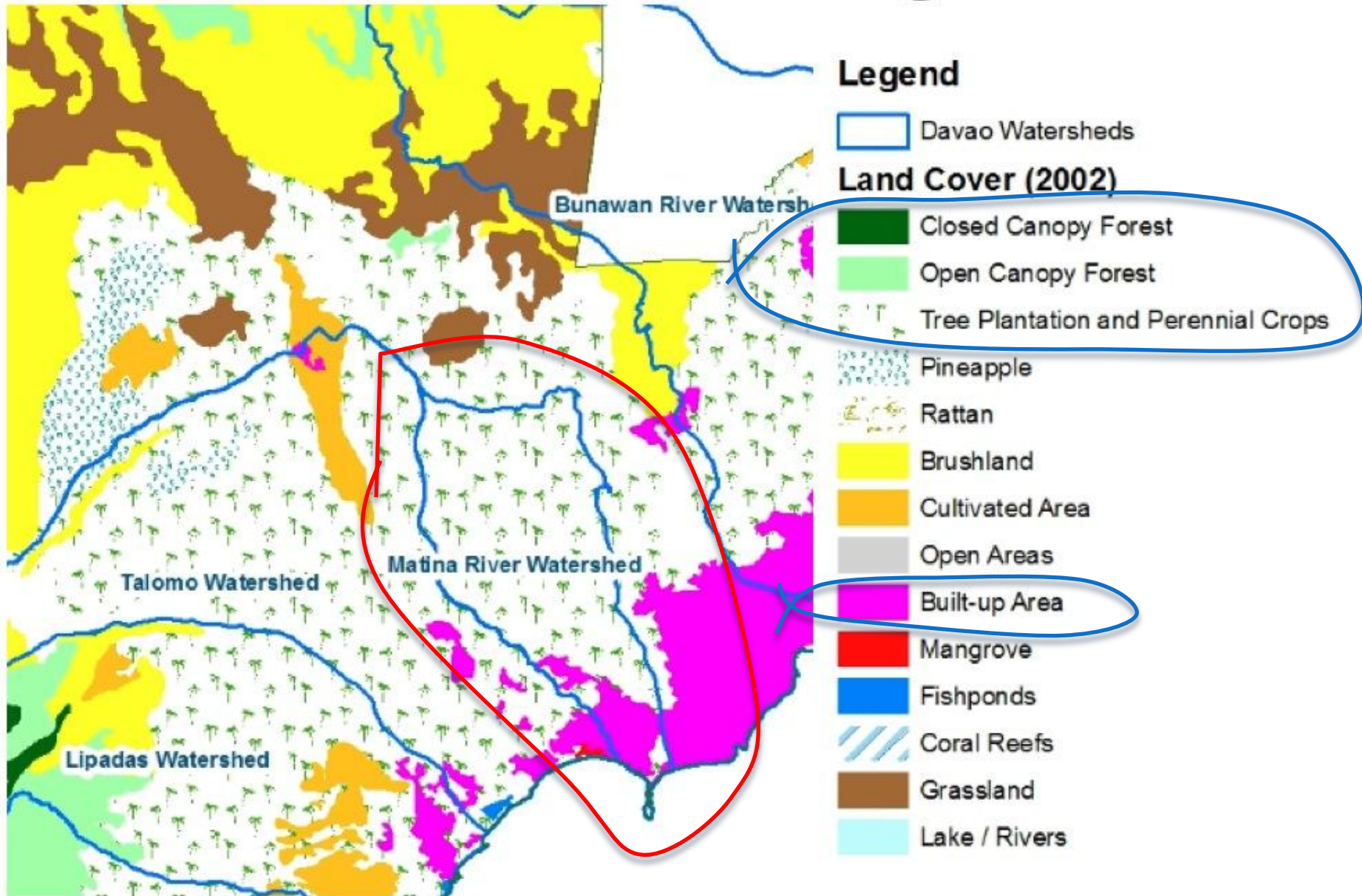


City Area: 236,124 (ha)
Watershed Area: 293,172 (ha)

Source: City Planning/ ERDS DENR XI



Matina Pangi



Matina Flashflood (June 28-29 2011)

- 29 people confirmed dead; 3000 families affected/displaced; 127 houses washed out
- Php 40 million (\$900,000) in estimated damages
- 48 mm recorded in 2 hours
- At 8:00PM floodwater started to rise; at 9:00PM floodwater breached Matina Bridge; flood peaked between around 10:30PM; floodwater subsided at around 4:00AM.



alvertus | phtography



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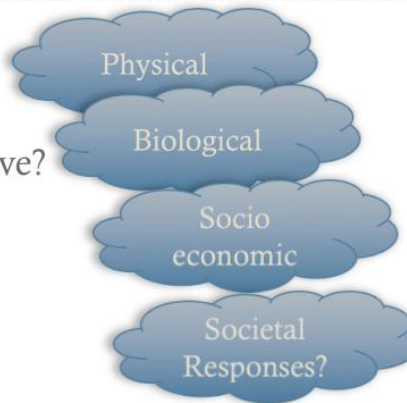
Integrating the Satoyama Initiatives

1. Enhance understanding and raise awareness of the importance of socio-ecological production landscapes.
2. Activities to promote the maintaining and rebuilding of socio-ecological production landscapes

Integrating the Satoyama Initiatives

1. Enhance understanding and raise awareness of the importance of socio-ecological production landscapes.
 - a. Held the **International Symposium on Hydro Hazards** (Aug. 24-26, 2011)
 - Study tour in Matina River Basin

- ◆ Hydrological – What did we observe?
- ◆ Environmentally – What did we observe?
- ◆ Life – What did we observe?
- ◆ Policy – How can we lead change?



Integrating the Satoyama Initiatives

b. Training on Integrated Water Management (IWRM)

- Introduction to IWRM and Hazards
- Understanding Concepts of Disaster Risk Assessment
- Understanding of Geo-Hazard Mapping
- Living on Floodplains

Integrating the Satoyama Initiatives

2. Activities to promote the maintaining and rebuilding of socio-ecological production landscapes
 - The Creation of the IWRM guidelines for Davao City (September 2011)

(electronic copy)

<http://davaowaterpartnership.org/lessons-from-iwrm-in-davao>



Future Mitigating Programs

- Mainstreaming of the IWRM Guidelines for Davao City
- Actual ground delineation of agricultural non-tillage and conservation zones as recommended in the Davao City Watershed Code
- Consider LANDSCAPE Planning rather than LAND USE.
- Replication of the River Bank Rehabilitation Program from the neighbor city of Tagum
 - **Green|Resilience: River Bank Restoration for Resilient and Livable Cities**

Green|Resilience: River Bank Restoration for Resilient and Livable Cities

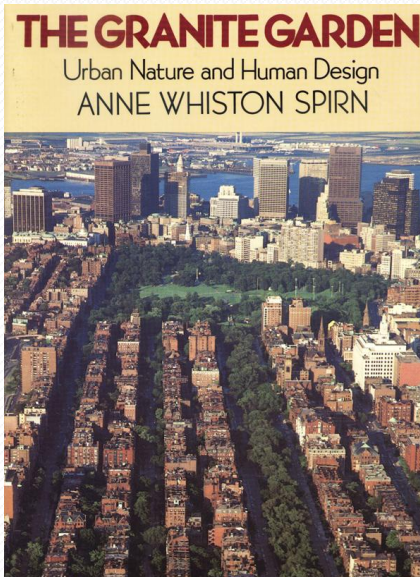
IMPACT	Goal: Riverbanks in Davao City contribute positively to flood regulation (ecosystem service) and economic wellbeing of urban residents.		
	<i>Knowledge and Awareness</i>	<i>Supportive environments</i>	<i>Field practices</i>
Outcome	Increased understanding of the role of riverbanks in floods and other ecosystem services.	An effective framework for Government, Corporate and Civil Society to collaborate for green resilience is in place.	Riverbanks are rehabilitated and are connecting urban communities.
<i>Intermediate Results</i>	<p>People understand/ awareness of the roles of riverbanks (DRR/IWRM) is raised</p> <p>People are open to changing the status quo on riverbanks</p>	<p>A task force is created</p> <p>Local executives are providing leadership to enable change/ progress.</p> <p>Local ordinances are enacted.</p> <p>MOA's are signed between landowners and LGU.</p> <p>Actors are pooling resources.</p> <p>Resource have been realized to program implementers.</p>	<p>A effective model for building Green Resilience through the rehabilitation of riverbanks is agreed.</p> <p>Green Resilience Site plans have been prepared.</p> <p>Riverbanks for rehab have been identified and rehab has commenced</p> <p>Community groups have established nurseries that are operational and producing plant materials.</p> <p>Ecopathway are connecting urban communities and provide open space for wildlife and people.</p>

ONE WITH NATURE

“Cities must not be in conflict with nature, it is possible to build cities that exists as part of nature.”

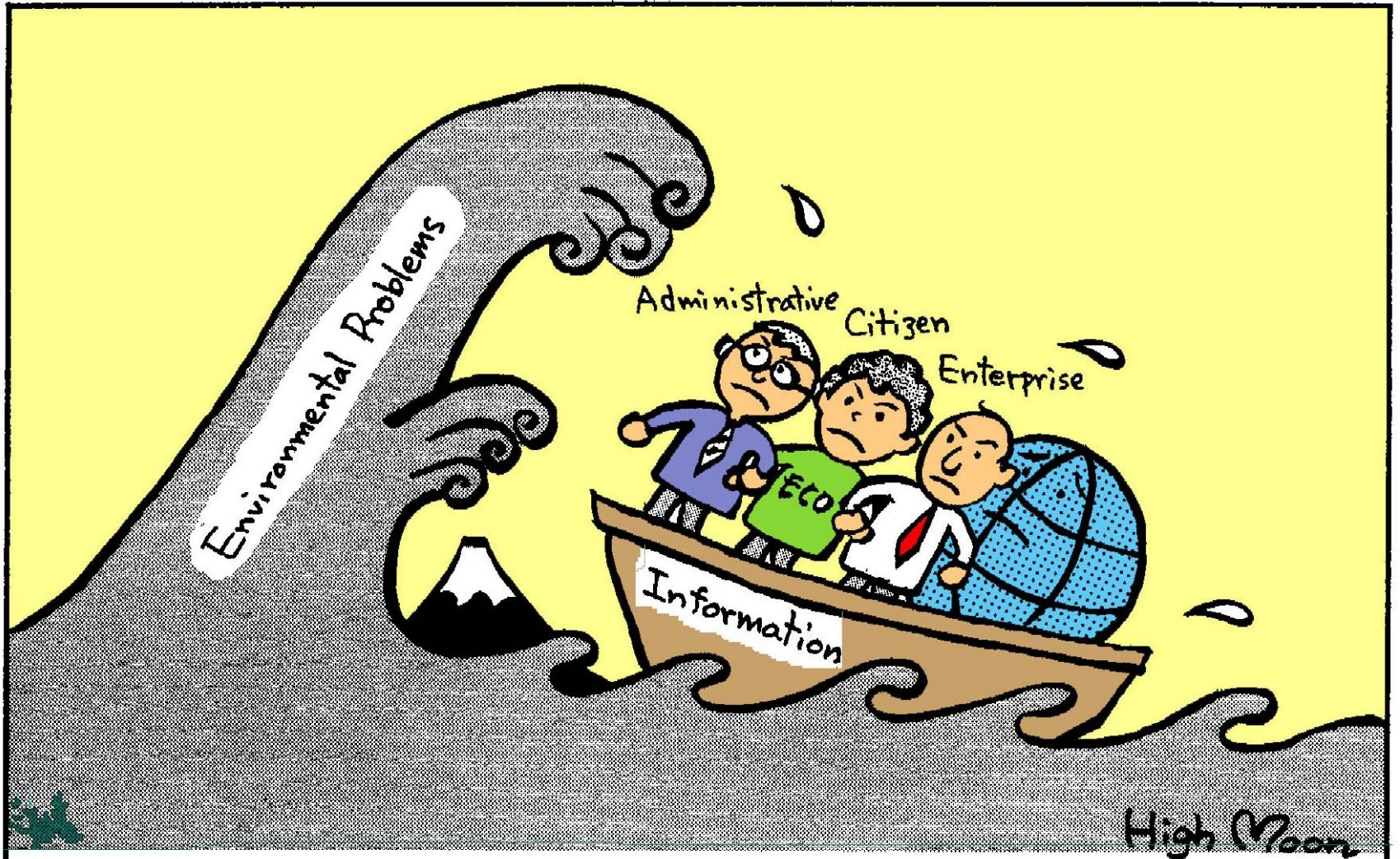
-Anne Whiston Spirn

...she proposes measures to develop cities while maintaining harmony with nature.



The Granite Garden

For Isidoro
with best wishes
Anne Whiston Spirn
Tokyo October 26 2001



“Together, can we withstand this huge wave?”



MARAMING SALAMAT PO!
(THANK YOU VERY MUCH!)