

***A beautiful environment to all of you!***



***Cora Claudio***

# “Climate Change: Economic Risks & Opportunities”

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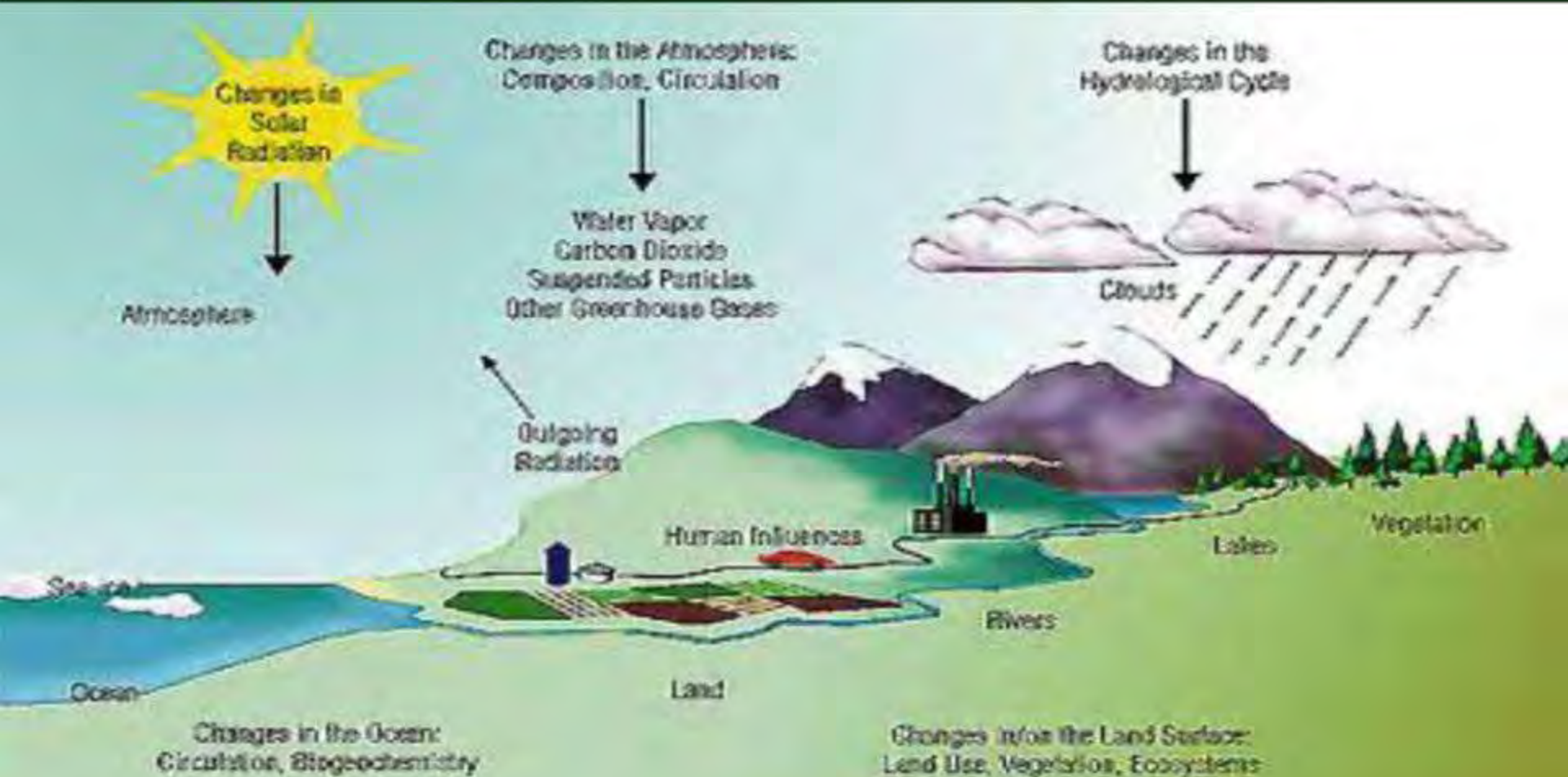
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# OUTLINE

- **Risks: *Think Globally, Act Locally***
- **Opportunities: *What & Where?***
- **Initiatives: *Public & Private Sectors***
- **Time to Act Now: *Some Recommended Actions***

# What is Climate Change?

Climate change is caused by natural events (e.g., volcanic eruptions) & human activities



***The issue is:***

***"How will the climate change over the next century under both natural & human influences?"***      *Steven E. Koonin*

*Dir., Ctr for Urban Science & Progress, NYU;  
Former USEC (science), US Energy Dept.*

**Challenges:**

**Uncertain climate's response to human & natural influences & uncertain impact of such influences**

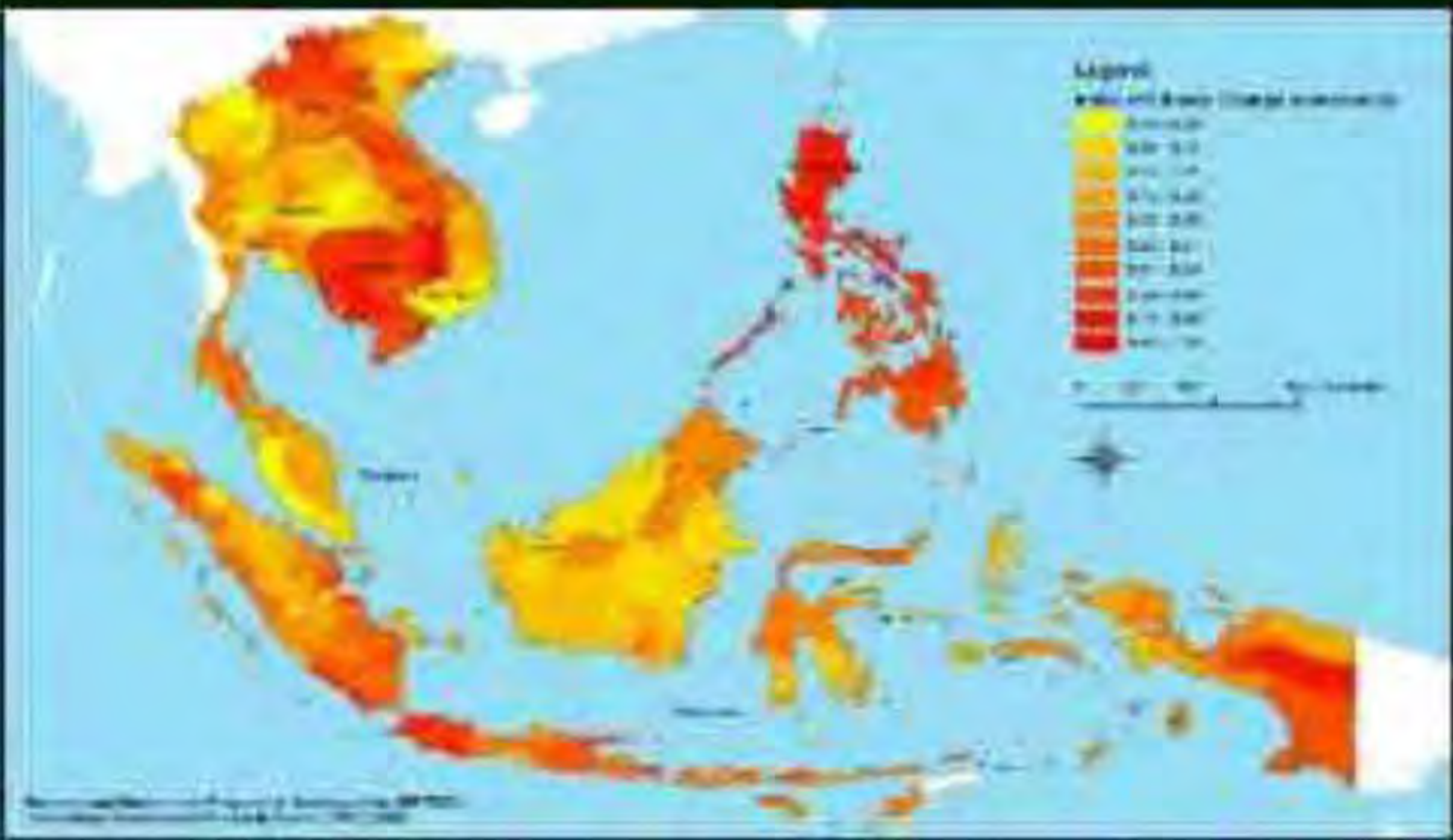
**Poor understanding of oceans, which hold most of the climate's heat**

***Much uncertainty, especially  
in adverse consequences--  
Risks.***

***But it's NOT an excuse for  
inaction!***

***Risks: Think Globally,  
Act Locally***

**Philippines: World's most vulnerable country to CC impacts due to our archipelagic characteristics & location prone to tropical cyclones (CCC)**



***"The foreigner just arrived in Manila . When it started to rain, he immediately hailed a cab.***

***"It seems quite early for the rainy season to start---  
--compared with my visit last year,  
" he told the driver. He knew that Filipino taxi drivers speak English, but this time the response surprised him.  
"It's climate change," the driver rep***



# Phil. Exposure Map

**Cluster I** – extreme heating events, sea level rise

**Cluster X** – extreme heating events, increasing ocean temperature, extreme rainfall events, disturbed water budget, sea level rise

**Cluster II** – extreme heating events, extreme rainfall events, disturbed water budget, sea level rise

**Cluster IX** – extreme heating events, extreme rainfall events, disturbed water budget, sea level rise

**Cluster III** – extreme heating events, disturbed water budget, sea level rise

**Cluster IV** – extreme heating events, sea level rise

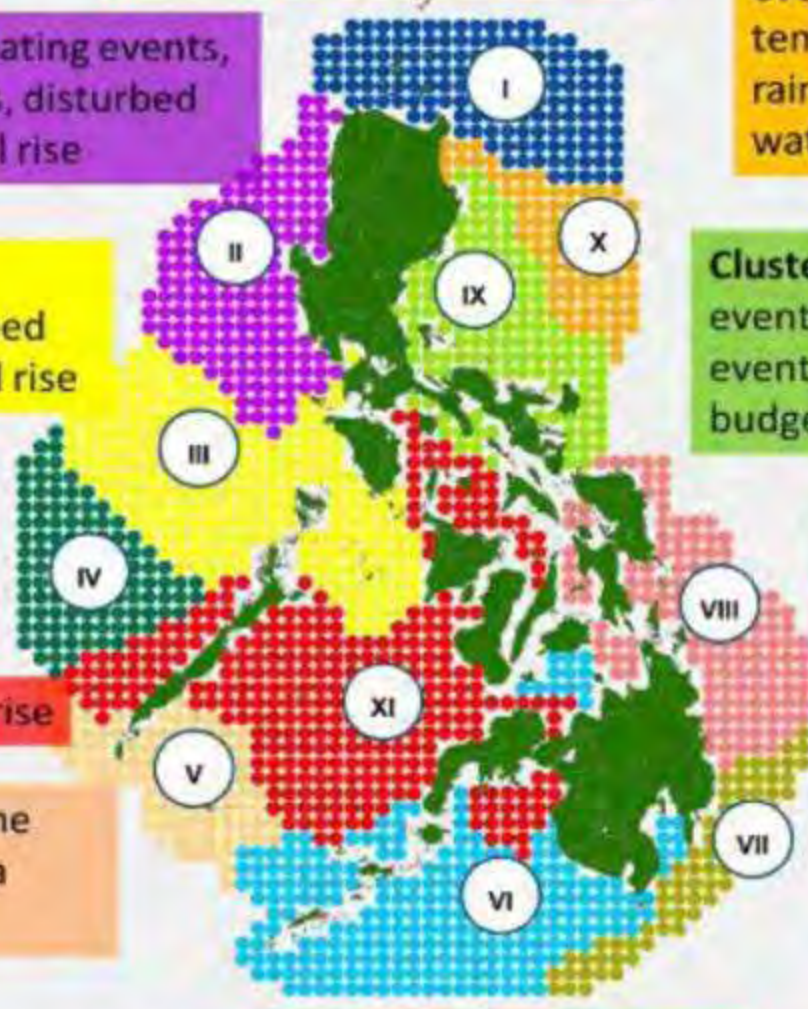
**Cluster VIII** – extreme heating events, increasing ocean temperature, extreme rainfall events, sea level rise

**Cluster XI** – sea level rise

**Cluster V** – extreme rainfall events, sea level rise

**Cluster VI** – sea level rise

**Cluster VII** – extreme heating events, increasing ocean temperature, sea level rise



David, Borja, Villanoy, Aliño (2012)



***Opportunities:  
What & Where?***

# 1) In the context of an inclusive, climate-smart sustainable development

**ECONOMIC**  
(Prosperity)

**ENV'TAL**  
(Planet)

**SOCIAL**  
(People)

**INDIVIDUAL (Person)**

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**Person: Healthier**



**People:**

***Less/No poverty***



**Planet: Greener**



**Prosperity: Income**



# **Aim for the Q Bottom Line!**

- ***Economic (Profit),***
- ***Environmental (Planet)***
- ***Social (People)***
- ***Individual (Personal)***

***values that support  
inclusive climate-smart  
sustainability.***

**2) In the Transition  
from green**

**to blue economy**

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**Recall that Green Economy: economy that "should contribute to**

- **eradicating poverty, as well as sustained economic growth,**
- **enhancing social inclusion,**
- **improving human welfare &**
- **creating new opportunities for employment & decent work for all**

**while maintaining the healthy functioning of the earth's ecosystems."**

## ***On the other hand, Blue Economy...***

***".....stands for a new way of designing business: using the resources available in cascading systems, where the waste of one product becomes the input to create a new cash flow."***

***Jan Steffen, IUCN***

***"...transition from a product-based to a system-based economy."***

***Dr. Catia Bastioli,***

***CEO, Novamont S.p.a, European Inventor of the Year 2007***



# ***Blue economy: Some basic principles***

- ***Substitute something with nothing***
- ***Natural systems cascade nutrients, matter & energy – waste doesn't exist***
- ***Any by-product is the source for a new product.***

# *Know more about the Blue Economy:*

**MAP Special Forum, Nov. 14, AM  
Bahia, Intercon**



## **DR. ANGEL C. ALCALA**

2014 National Scientist of the  
Philippines Awardee  
Former DENR Secretary and  
Chair, Commission on Higher  
Education



## **PROF. GUNTER PAULI**

UN Global 500 Awardee  
Author, Teacher, Activist &  
Entrepreneur  
Founder/President, Zero  
Emissions Research and  
Initiatives

***Sample Initiatives:  
Public & Private Sectors***

## *Public Sector:*

- **CCC:** NCCAP, Eco-town concept  
(Nat'l CChange Action Plan)
- **LGUs:** CC adaptation with livelihood

# CCC's Eco Town for Climate-Smart Sustainable Development



- a planning unit composed of 1 or more towns within & around critical key biodiversity areas, which are at high risk to climate change



•Enhanced  
Local Plans

Comprehensive  
Development  
Plan, 2011-20



•Finance  
Schemes



•Climate  
Adaptation  
Support  
Service



•Adaptation/  
Mitigation Measures  
Implementation



•Environment and Natural  
Resource Accounting



•Vulnerability Assessment



•Natural Resource Assessment

*Ligao  
City:  
Padjak*





***Private Sector***



# PWC: CC & Sustainability Survey

## Background

Studies over the past few years have confirmed that substantial climate change is now happening and will continue throughout the 21st century. The changing climate is impacting businesses across the world and creates both risks and opportunities. Increasingly, businesses are responding to climate change, though many still are not.

Until now, there has been no data about how businesses in the Philippines are responding to climate change or how it responds benchmark against in-country and overseas peers. It is for this reason that PwC has undertaken research, results of a survey, to establish information on initiatives of businesses in the Philippines.

Our survey explores how businesses are interacting and cooperating with national and local governments in developing, implementing and financing climate solutions. Further



The first Climate Change & Sustainability Survey in the Philippines

2011

Climate change

[www.pwc.com/ph/thinkrank](http://www.pwc.com/ph/thinkrank)

## Philippine businesses' response to climate change

Climate change and sustainability survey  
June 2011



**pwc**

# *Ayala Land: Greening of the environment*

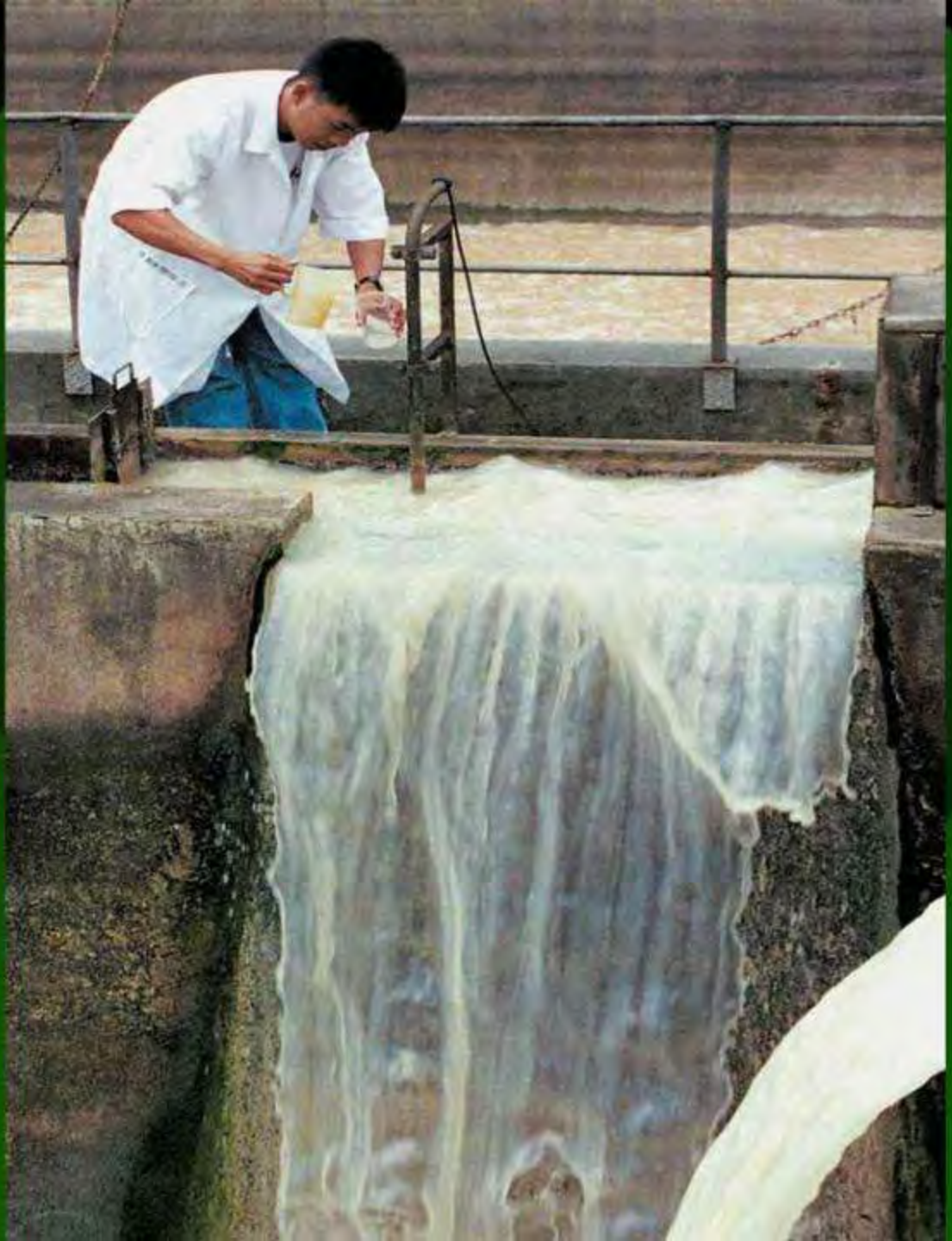


Photo by Louise Liza Olazo

# *Palafox Associates: CC-resilient design*



*Nestle:*  
**More  
efficient  
use of  
resources**



# ***Bayer: Energy management***



# ***MFI: Rain collection system***



## ***More technological initiatives:***

- **Pest control**
- **Alternative fuels**
- **Natural fertilizers**
- **Solar-powered AWMS**
- **Electric vehicles**
- **Cleaner production**
- **Green energy**



***The MAP-EARTH-PCAFI-led  
Private-Public Partnership on  
Climate Change,  
Disaster Preparedness  
& Sustainability***



# *Risk Profiling Using a Common Platform, e.g., Google*



# **TOWNS IC3 (Information Caravan on Climate Change)**

- To promote improved understanding of CC & its associated risks**
- To encourage risk management strategies & measures**

# climate change adaptation

BEST PRACTICES  
in the  
PHILIPPINES

climate change adaptation

BEST PRACTICES in the PHILIPPINES



**MDG.F**  
MDG ACHIEVEMENT FUND  
2005-2015



**MDG.F**  
MDG ACHIEVEMENT FUND  
2005-2015



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

***Time to Act Now:***

**Some Recommended Actions**

- **Treat your CC risks (internal & external) more seriously—identify, assess, manage, & monitor them; disclose data affecting the public**
- **Share CC knowledge & info (e.g., best practices) with policy & decision makers, participate in policy making (e.g., on incineration)**

- **Implement well the laws, rules, & regulations on air pollution, solid waste & water management, & other environmental & climate change-related topics**
- **Implement energy, water, & other resource conservation measures & enjoin all to be vigilant in securing & protecting them**

- **Invest more in renewable energy production, green infrastructure, etc. and move towards attaining a blue economy with no or minimal waste**
- **Live & promote a sustainable lifestyle—apply SIMBY—see next sample cases**



# Sample Case: *The Moonlighting Bank Chair in her Garden*



# *One of my SIMBY Initiatives*



*I can  
eat my  
kitchen  
curtain!*



***Thank you!***  
***Let's work together **now...*****  
***towards our inclusive, climate-smart***  
***sustainable development.***