

GLOBAL CONFERENCE ON NUTRIENT MANAGEMENT

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WHAT ISSUES REQUIRE POLICY OPTIONS ?

from the perspective of a limnologist and resource manager

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LAGUNA LAKE DEVELOPMENT AUTHORITY

PHILIPPINES

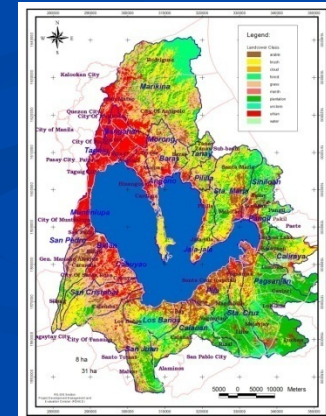
20 June 2013

N and P Obesity of Surface Waters

EUTROPHICATION

affects not only water quality but also food and health security

- Nutrient input from various sources are identified, but some are inadequately quantified, e.g. P inflow from detergents – significant or not?
- Internal loading – nutrient release from sediments
- Impacts of land use – e.g. land conversion
 - Erosion and sedimentation
 - Flooding



Floods are not just water; also loaded with sediments, solid wastes, nutrients, other pollutants



NUTRIENT TRANSPORT VIA THE FAST LANE

LAGUNA DE BAY

N&P EXPRESSWAY, FREEWAY
AUTOBAHN



AC Santos-Borja

Photo credit: -E. Manda

What is the allowable loading in surface waters

- depends on the capacity of receiving waters
- depends on the response dynamics
 - lakes react differently from rivers

“Scientists on tap or scientist on top?”



Reclamation, and re-use of nutrients

“Your waste is my treasure!”

✓ Voluntary

✓ Legislated

e.g. Regulation on the safe re-use of wastewater for irrigation and other agricultural uses

The Philippine’s Department of Agricultural has issued an Administrative Order as well as the guidelines and technical requirements – linked with the Issuance of effluent discharge by the Department of Environment and Natural Resources and the Laguna Lake Development Authority



Informing and involving stakeholders

- When do we engage the politicians? – at which stage of the Td process?
- How about the important role of media?

Changing the mind set, re-orientation

- Hand-washing of clothes – more bubbles, more cleaning power
 - Use of dry toilet - collection of N from urine
- (Saburo Matsui – Professor Emeritus of Kyoto University)

VIRTUAL N & P

Multi-nationals

Detergents, soaps and other cleaning products are manufactured in Country A but heavily marketed and utilized in Country B.

-Share the responsibility in addressing the environmental impacts of the use of the product – e.g. pollution of lakes, rivers

- Can be addressed through CSR?
- Other means?



"Maraming Salamat Po!"

THANK YOU VERY MUCH!

