

# Profile

## SESSION 3:

From Vision to Reality:  
Aligning the Global  
Agenda with Local  
Benefits

## WORKSHOP 2:

Future of Coastal Cities

## Workshop Presentation: Integrated Urban Coastal Management in Singapore

**Dr. Nhung Nguyen**  
Manager  
National Biodiversity Centre  
National Parks Boards  
Singapore



### Abstract

#### Integrated Urban Coastal Management in Singapore

Singapore's coastlines have been modified since the early 1900s. Despite extensive loss of coastal habitats and the continued coastline modification and utilization by various industries, 35 mangrove, 12 seagrass, 255 hard coral species and a great diversity of other marine fauna organisms can still be found in Singapore. This high biological diversity is critical in maintaining a sustainable and healthy ecosystem for all users and stakeholders. To manage competing uses of our scarce coastal and marine resources, Singapore adopted the Integrated Coastal Management (ICM) framework, which is recognised internationally as fundamental to good ocean and coastal governance, and as key tool for achieving environmental sustainability. This framework provides a mechanism for effective management of issues related to the coastal and marine environment (CME) through effective governance, active partnerships, efficient coordinating mechanisms, sustainable financing and enhanced capabilities.

As a heavily urbanised city state, issues pertaining to Singapore's coastal and marine environment are closely tied to urban development. As such, Singapore has developed a more specific form of ICM, known as Integrated Urban Coastal Management (IUCM). IUCM is one of the strategic and operational tools for marine biodiversity conservation in Singapore. It enhances coordination between all coastal stakeholders and optimizes the use of coastal resources in a sustainable manner to conserve sensitive coastal habitats and biodiversity in the face of coastal development.



THE EAST ASIAN SEAS CONGRESS 2015  
16-21 November 2015 • Danang, Vietnam

**Global Targets**  
**Local Benefits**

Setting the Sustainable Development Agenda for  
the Seas of East Asia beyond 2015

The framework is characterised by a strong emphasis on consultative processes for coastal development, active partnerships with the non-governmental sectors, and science-based management approach. Relevant research are being conducted to further our understanding of anthropogenic impacts on the CME and to provide recommendation to policy makers and industry partners. Some research initiatives being highlighted include research on biodiversity connectivity, impacts of marine navigation on coastal and marine habitats, bio-indicators for habitat health, etc. The establishment of Singapore's first Marine Park - the Sisters' Islands Marine Park is one of the strategies to further the protection of coastal resources in an area that is intensely used by numerous industries.

## **Biography**

Dr. Nguyen obtained her PhD degree in Geography at Royal Holloway, University of London. Her research topic was about integrated coastal management with focus on local governance, and participatory mapping practice in coastal resource management. She also studied the translation of international and national policies into local practices and *vice versa*.

As part of the Coastal and Marine Branch at the National Biodiversity Centre at NParks, Dr Nguyen is currently focusing on implementing and developing Integrated Urban Coastal Management in Singapore. This involves bringing together and working with other stakeholders on cross-cutting issues of Singapore's coastal and marine environment. She is driving initiatives in IUCM implementation, including training, documentation and certification to ascertain Singapore as a PEMSEA Regional Demonstration Site and Learning Centre. She also manages a couple projects related to coastal biodiversity enhancement and geographic database development.