













22-26 April, Hanoi, Vietnam

"Geospatial Information for a Smarter Life and Environmental Resilience"



# **EVALUATING THE ENVIRONMENTAL IMPACT** OF THE HOANKIEM LAKE WITH FOCUS ON URBAN DEVELOPMENT PLANNING BY USING A DPSIR FRAMEWORK.

Hanoi, 25th April 2019

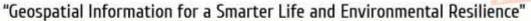








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#### 1. Introduction

### **Urban density**

•Up to 2020 more than 40% of the city population is living in the core center

• 2030: > 50% of the population will live in the core center

Ha Noi Master Plan until 2030, vision to 2050

#### By 2030:

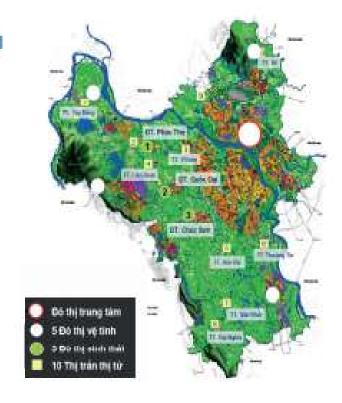
Population: 9.0-9.2 million

Urbanization rate: 68%

#### By 2050:

Population: 10.73 million

Urbanization rate: 70-80%





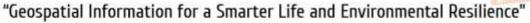




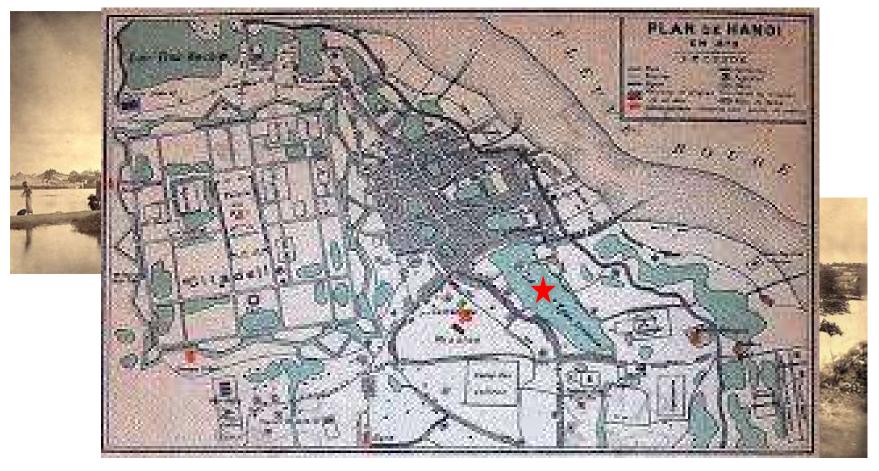




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The last Turtle was found dead on January 19, 2016.











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### 3. Materials & Methods

**Statistical Data** 

**Environmental** quality

Policies and Institution

#### **DPSIR** indicators

(Driving Forces, Pressure, State, Impact and Response)

#### **Urban Governance**

"green, clean, attractive and dynamic"







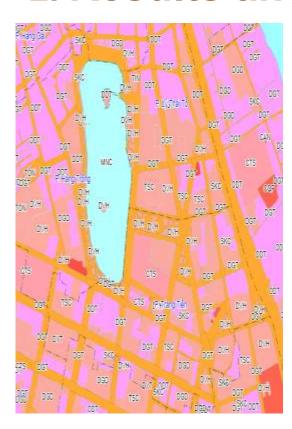


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### 2. Results and Discussion



#### **Driving Forces**

- Public administration
- Tourism & Economic growth

#### Pressure

• pollution, land-use change, population growth

#### State

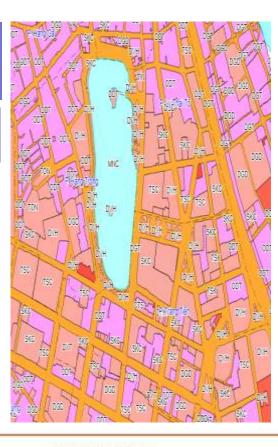
• water quality, soil quality, air quality, habitat, vegetation

#### **Impact**

• public health, habitat fragmentation, economic crisis, environmental damage, biodiversity loss

#### Response

- •Taxes
- environmental laws















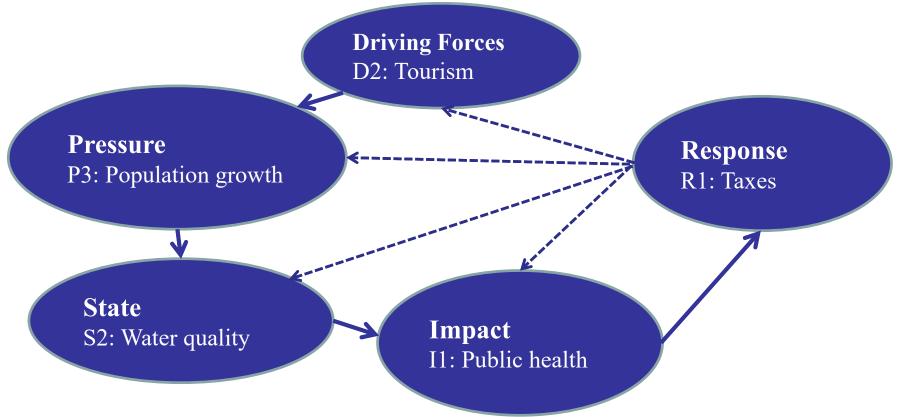


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### 3. Results and Discussion













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### 3. Conclusion & Recommendations

- 1. The DPSIR model using individual indicators could be evaluated the negative impacts of environment with focus on Urban Development Planning that integrates 5 groups in the attempt for socio-economic development.
- 2. the HoanKiem lake is considered as one of the centers most increased both business, trading and tourist sectors. The HoanKiem lake is particularly at potential risk (a total score of 711) as it is faced the conflict of environment such as degradation of soil, water, air and ecosystem.

The participation of non-State actors trigger a strong reform in PS









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### THANK YOU FOR YOUR ATTENTION.







