

# 글로벌 탄소중립 혁신과 연대를 위한 협력 포럼

International Innovation Forum on Solidarity and Cooperation for Carbon Neutrality

## Session 2

### 아시아 주요국 기후적응 정책 현안 발표 - 베트남

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INTERNATIONAL INNOVATION FORUM ON  
SOLIDARITY AND COOPERATION FOR CARBON NEUTRALITY

**CLIMATE CHANGE ADAPTATION  
REGARDING URBAN FLOOD RISK REDUCTION  
IN VIETNAM**



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Urban flood risk reduction is one of the most important issues since big cities of Vietnam are amongs the most seriously affected by sea level rise in the climate change context.



## BLUE GREEN INFRASTRUCTURE (BGI)

BGI is a network of connected green spaces and infrastructure designed to function as a natural ecosystem, preserving ecosystem values and functions while enhancing human life quality. BGI emphasizes integrating drainage systems with natural green and landscape spaces for efficient water resource and flood risk management. BGI is expected to substitute hard infrastructure in some extends.

BGI could be applicable at different scales.

- At the building scale: internal greenery, green roofs, green walls, hanging gardens, water retention tanks, etc.
- At the community scale: porous pavements, bioswales, green corridors along streets, etc.
- At the city scale: wetlands, retention lakes, eco-river channel, etc.





## RAINWATER HARVESTING

- To replenish underground water resource to prevent land subsidence.
- To reuse without treatment for suitable purpose (car washing, yard washing, tree watering, toilet flushing) and reuse with treatment for human drinking and bathing, cloth washing, etc, which strengthens water security.
- To reduce runoff water which causes flooding.



### Everybody Happy Green Roof

Concrete Green Roof as water-Energy-Food nexus

**New Paradigm of roof**

1. Utilize the 5th floor of the tower
2. Social Responsibility of a roof

**Water**  
 1.000 m<sup>3</sup> (2600 gal) on 2400 m<sup>2</sup> floor

**Energy**  
 1.000 kWh (3,600 kWh) on 2,400 m<sup>2</sup> floor

**Impact of a Building → How to reduce it?**  
 Water (reusing), Energy (renewable), Social (social responsibility)

**Description of Showcase Project**  
 Location: Working Hill at Seoul National University (SNU), Seoul

**Special feature of this project**

1. Concept
2. Monitoring

**Benefits**

- 1. Water-Energy-Food Nexus
- 2. Energy-Efficient Greenhouse
- 3. Urban Agriculture

**Replication Potential**

- Minimum operation cost
- Social, Economic, City maker
- Outreach for suburban the trail of green roof

**Conclusion**  
 This Concrete Green Roof showcase is a model for the suburban urban water management as a strategy for climate change adaptation.