CHOREOGRAPHIC BORDERS

A progressive strategy to Activate Cross-border developments around Korea DMZ border region.

MJ Kim | 4310969
P5 presentation
KOREAN WAR (1950-1953)

“65 years of separation”
- 25th June, 2015

Photo by: Maj R.V. Spencer, USAF
Image source: National Archives and Records Administration
http://blog.joins.com/media/folderlistslide.asp?uid=fabiano&folder=9&est_id=6515597
CHOREOGRAPHIC BORDERS

A progressive strategy to Activate Cross-border developments around Korea DMZ border regions

MJ Kim | 4310969

TU Delft

In support of:
MSc 3 Urbanism
Metropolitan Spatial Structures Laboratory
Research & Design Methods (AR3U012)
Graduation Lab Urban Transformation and Sustainability (AR3U100)
Mentor Team : Prof. Vincent Nadin | Daan Zandbelt | Dr. D. Sepulveda
INTRODUCTION

서론
KOREAN BORDERS: 1ST ZONE, DMZ

No human access allowed
However GP (Guard post) exists

Border Fence
Ecology
Joint Security Area
Border post
KOREAN BORDERS: 2ND ZONE, CCZ AND TOUR PROHIBITED ZONE

Strict limit on access: ID required, tourism area allows identified tourists, mine danger.
KOREAN BORDERS: 3RD ZONE, BORDER REGIONS

Limit for development:
Low density, military use, some nature leisure
HAVE CROSS-BORDER ACTIVITIES EXISTED BETWEEN TWO KOREA?
CROSS-BORDER DEVELOPMENTS:
NORTH SIDE SPECIAL ECONOMIC ZONE IN 1990S

Kaesung Industrial complex

Kumkang Mountain tourism zone
BORDER REGION DEVELOPMENT
SOUTH SIDE TOURISTIC DISTRICTS IN 2010S

Border region support
Eurasia railway network
BORDER REGION
DEVELOPMENTS

NORTH SOUTH interaction town project: Ruins natural value? [DMZ walking thorough 155miles], Green Korea

NATURAL LANDSCAPE

NATURAL value of KOREA border: [DMZ walking thorough 155miles], Green Korea

SEARCHING FOR THE POSSIBILITY
MOTIVATION

IS A SUSTAINABLE CROSS-BORDER DEVELOPMENT BETWEEN THE TWO COUNTRIES POSSIBLE?
PROJECT OBJECTIVE

TO FIND the role and possibility of a sustainable cross-border developments in border regions

TO SUGGEST a plan and design frameworks that can activate the cross-border development
METHODOLOGY

방법론
RESEARCH QUESTIONS

“"How territorial cooperation mechanisms of planning and design can be applied to the Korean border regions to facilitate future cross-border developments that consider local communities and ecological values?”

1. What are the theories and strategies that have been used or discussed to increase cross-border developments in different contexts?

2. What are the constrains and potentials of biophysical, sociocultural and economic conditions that can contribute to cross-border development in Korean border regions?
PROJECT AREA

INTERNATIONAL LEVEL
- North-East Asia Network
- Eurasia Network:
  - SilkRoad Express

NATIONAL LEVEL
- TSR ~ TKR Railway network:
  - Rearrangement of cities’ role

REGIONAL LEVEL
- Yellow Sea Metropolitan Network:
  - Specialized cities

LOCAL LEVEL
- DMZ | Paju ~ Kaesung:
  - Multi complex Cluster
  - A test bed Platform

< THEMATIC LINE BY SCALE >

THEORETICAL FRAMEWORK

VISION | SPATIAL PLANNING
- Spatial Model

PROGRESSIVE STRATEGY
- Land Use, Function, Ecology
- Activities, Interactions

EVALUATION : STRATEGY II & SCENARIO
- Speculation and evaluation for Consequences & Impact

SCENARIO & VISION FEEDBACK
- Development process with System, Infrastructure
  - Guide line, Principle

PROGRESSION STRATEGY
- Development Process with physical, spatial design
METHODOLOGY

I. COMPREHENSION

THEORETICAL FRAMEWORK
- GENERAL THEORY
  - BORDER THEORY
  - BORDER CONDITION
  - CROSS-BORDER PLANNING
- CASE STUDIES
  - CASE SHENZHEN - CHINA
  - CASE GERMANY BORDER
  - CASE SWEDEN - DENMARK

ANALYTICAL FRAMEWORK
- HISTORICAL CONTEXT
  - GEOPOLITICAL ANALYSIS
    - HISTORICAL REVIEW
    - POLICY AND PLANNING
- SPATIAL CONDITION
  - CONSTRAINTS & POTENTIAL
    - ECONOMIC
    - BIOPHYSICAL
    - SOCIO-CULTURAL

II. VISION & STRUCTURAL PLAN

AIM OF THE PROJECT AND VISION

STRUCTURAL PLAN

III. STRATEGY & SCENARIO

STRATEGY
- ACTION, SPECIFICITY
  - A strategy that contains instruments for design
  - Guide line, interrelationship of system, governance
  - According to fulfill the objectives

SCENARIO
- CONSIDERATION ON ACTORS INVOLVED
  - THROUGH THE PROCESS AND MAJOR FACTORS FOR FUTURE SCENARIO

1. AGREEMENT
- INSTITUTIONAL PROCEDURE FOR LEGALIZE THE ZONE
  - SETTING A FRAMEWORK WITH INFRASTRUCTURES
  - ARRANGEMENT FOR PARTICIPANTS AND ACTORS

2. TOP-DOWN
- CREATION OF PARTNERSHIP PROMOTING BASIC PROGRAMS AND SYSTEMS
  - FOR CLUSTERING

3. BOTTOM-UP
- ESTABLISHMENT OF FACILITIES FOR INITIATIVES ACTIVITY
  - TRANSPORTATION CONNECTION TO NEAR CITIES
  - TEST FOR INTERDISCIPLINARY SYNERGY

4. SYSTEM
- SPECULATION ON THE IMPACT OF ADJACENT DMZ METROPOLITAN REGION
  - STRATEGY TO EXPAND ALONG MAJOR NETWORK (SILKROAD RAILWAY EXPRESS)

REVIEW ON OBJECTIVES

ECONOMIC
- ECONOMIC SYNERGY AND SUSTAINABILITY THROUGH AGREEMENT ON COLLABORATIVE DEVELOPMENT

SOCIAL
- SPECIALIZING LOCALITY THROUGH DYNAMIC BORDER REGION PLAN BY COLLABORATIVE PLANNING

ENVIRONMENTAL
- COLLABORATIVE MANAGEMENT OF ECOLOGICAL PRESERVATION AND CONNECTION ON BORDER & TWO NATIONS
THEORETICAL FRAMEWORK

이론적 배경
WHAT IS A SUCCESSFUL CROSS-BORDER DEVELOPMENT?

- SWEDEN - DENMARK
- EAST - WEST GERMANY
- SHENZHEN - HONGKONG
CASE STUDIES

1. Alienated borderlands
2. Co-existent borderlands
3. Interdependent borderlands
4. Integrated borderlands

SHENZHEN - HONGKONG
SWEDEN - DENMARK
EAST - WEST GERMANY

CLOSED/HARD
OPENED/SOFT
### CASES ASSESSMENT: MAJOR STRATEGIES AND DRIVERS

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>Fortressed Zone</th>
<th>Ring</th>
<th>Linear</th>
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<tr>
<td><strong>ECONOMIC DEVELOPMENT</strong></td>
<td>🏛️ Critical mass</td>
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<td>Political power</td>
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<td>Specialized infrastructure</td>
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<td>Border challenges</td>
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<td><strong>GOVERNANCE</strong></td>
<td>Less participants and flexible</td>
<td>Oresund comettee &amp; Interreg : Platform for communication</td>
<td>Province, NGO involve actively EU &amp; Federal government subsidize/</td>
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<td>Stimulate competition among local governments</td>
<td>Bottom up</td>
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- **Fortressed Zone**: Critical mass, Political power, Regional identity, Regional branding, Specialized infrastructure, Border challenges
- **Ring**: 4, 5, 6, 8, 2, 3, 4, 8, 3, 4, 4, 5, 9
- **Linear**: 5, 9, 2
IDEAL PROCESS TO ACTIVATE CROSS-BORDER DEVELOPMENT

I. TOP-DOWN
: Political agreement

II. BOTTOM-UP
: Border region develop

III. SYSTEM & IDENTITY
: Integration of regions

IV. EXPANSION OF IMPACT
: Coexistence relationship

SETTING AGREEMENTS
DEVELOPMENT VISION
Piviot for core development
Infrastructure
Institutional organization

MOTIVATION FOR LOCAL
ENDOGENOUS DEVELOPMENT
Cooperation among stakeholders
Communication platform
Support from near cities

BORDER REGIONS
AS ONE SYSTEM
Operational mechanism set
Sharing goods & labours
One new region

INFLUENCE ONTO
OTHER REGIONS
Relationship of nations
Metropolitan network
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HISTORICAL REVIEW
1. Alienated borderlands

Nature

Some human settlements and Kaesung SEZ

Limited economic activities: DMZ and CCZ

Two layers of border:

- South-North Korea

1. Alienated borderlands

New towns and Agriculture

Shenzhen SEZ

Crossing at official check

3. Interdependent borderlands

City to city network

Euroregion Meuse-Rhine

Collaborative economic activities:

Crossing available

Only boundary posts

1. Hostile competition

Berlin closed

The 2nd World War

During Korean War

1948 1st Republic

President. SeungMan Lee

1960 1962 3rd Republic

President. JungHee Park

1979 4th Republic

President. DooHwan Jeon

1980 5th Republic

President. KyuHa Choi

1988 6th Republic

President. MooHyun No

1994 2011 7th Republic

President. HyuckJae Moon

2013 2018 8th Republic

President. MooHyun No

5. United Korea

2015 9th Republic

President. Moon JaeIn

1. Hostile competition

9.11 Terror Globalization

Berlin wall Demolish

Soviet Union Separation

9.11 Terror

Globalization

2. Hostile cooperation

Berlin closed

1950

1960 Vietnam War

Cold war

Berlin wall Demolish

Soviet Union Separation

9.11 Terror

Globalization

3. Peaceful Co-existence

Kaesung & Kumkang

Kaesung SEZ

Crossing available

Only boundary posts

2. Co-existent borderlands

Shenzhen - China

Netherlands - Germany/Belgium

4. Alianced Korea

Kaesung & Kumkang

Kaesung SEZ

Crossing available

Only boundary posts

3. Interdependent borderlands

Shenzhen - China

Netherlands - Germany/Belgium

4. Integrated borderlands

5. United Korea

Shenzhen - China

Netherlands - Germany/Belgium
DEGREE OF PERMEABILITY BY HISTORY

"Korean Armistice agreement"

LEVEL OF COOPERATION

5. United Korea
4. Alienated Korea
3. Peaceful Co-existence
2. Hostile cooperation
1. Hostile competition

TIME

1945
Korean independence
1950
Korean War
1953
Cease Fire: DMZ

1945 - 1953: HOSTILE RELATIONS
DEGREE OF PERMEABILITY BY HISTORY

II. 1970S-1980S: HOSTILE COMPETITION

“Protection on Military Bases and Installations Act”

LEVEL OF COOPERATION

1. Hostile competition
   - 1950: The 2nd World War
   - 1960: Vietnam War
   - 1970: Cold war
   - 1980: Berlin wall
   - 1990: Berlin opened

2. Hostile cooperation
   - 1969: CCZ Named
   - 1970: 8.15 Declaration: Peace Unification Vision
   - 1972: Protection on Military Bases and Installations Act established
   - 1974: Underground Tunnel
   - 1976: North Korea's Underground Tunnel

3. Peaceful Co-existence
   - 1972: Protection on Military Bases and Installations Act established
   - 1974: 8.15 Declaration: Peace Unification Vision

4. Alienated Korea
   - 1959: CCZ Named
   - 1969: Villages construction

5. United Korea

TIME


“Protection on Military Bases and Installations Act”

1970S-1980S: CCL and Villages

1990S: DMZ & CCZ modification

image from: http://ggholic.tistory.com/8578
II. 1970S-1980S: HOSTILE COMPETITION

Demarcation line and physical fence (SML)
DEGREE OF PERMEABILITY BY HISTORY

III. 1990S-2000S: HOSTILE COOPERATION

"Inter-Korean Basic Agreement"

Kaeseong Special Economic Zone. Image from department of unification(south Korea)

Kaesung Tourism district.

Kaesung SEZ

Kumgang Tourism

2000S
Kaesung & Kumkang SEZ
III. 1990S-2000S: HOSTILE COOPERATION

Highway and railway access improved
DEGREE OF PERMEABILITY BY HISTORY

“Border Region Support Law”

LEVEL OF COOPERATION

1. Hostile competition
2. Hostile cooperation
3. Peaceful co-existence
4. Allied Korea
5. United Korea

TIME


DEGREE OF PERMEABILITY

The DMZ park manifesto. Designed by choi seungtae. Edited by shim youngkyu.
http://www.vmspace.com/eng/sub_emagazine_view.asp?category=architecture&idx=11844&pageNum=1

2010S
Border regions Development

2015~
TKR? Peace Park?

The 2nd World War Berlin closed Vietnam War Berlin wall Demolish
Soviet Union Seperation
Cold war

9.11 Terror Globalization

Kumgang Mt. tourist shot
CCZ line evacuation

Kaesung Industrial Complex
Kueng ui Railway

Nuclear Crisis

10.4 Declaration

2003
Kaesung Industrial Complex

Kyung-ui railway

2007

Kaesung Industrial complex
temporary suspension / Reoperation

2008
Kumgang Mt. tourist shot
CCZ line evacuation

2013
Kyung-ui Railway

Kaesung Industiral complex
temporary suspension / Reoperation

2014
OHIC, NK Human Rights Resolution
DMZ Peace park, TKR railway proposal

2010
ROKs Cheonan Sinking
[Border Region Support Law] established

2013
Kaesung Industiral complex
temporary suspension / Reoperation

2014
OHIC, NK Human Rights Resolution
DMZ Peace park, TKR railway proposal
IV. 2000S-2010S: PEACEFUL CO-EXISTENCE?

Tourist’s access improved
(South CCZ area)
PLANNING SYSTEM & SPATIAL CONDITIONS
Through this process, it will provide a means for planners:
first ‘to understand’ the ‘entire complexity’,
second to help properly comprehend ‘emerging planning challenges’,
and third to ‘identify variables which are at play in the concrete border region’ (Haselsberger, 2014).
PLANNING SYSTEM OF SOUTH BORDER REGIONS: HORIZONTAL INTEGRATION

Responsible Government departments

- Ministry of Land, Transport and Maritime Affairs
- Ministry of Public Administration and Security
- Ministry of Unification
- Ministry of Culture, Sports and Tourism
- Ministry of Environment
- Korea Forest Service

DIVISION OF MANAGEMENT
SCATTERED INFORMATION FOR LOCAL MUNICIPALITIES
PLANNING SYSTEM OF SOUTH BORDER REGIONS: VERTICAL INTEGRATION

< POLITIES FROM CENTRAL GOVERNMENT>

< SPATIAL PLANNING>

Kyung-gi Province Border region plan

COMPETITIVE MUNICIPALITY
TOP-DOWN PLAN
LESS LOCAL REQUIREMENTS
SPATIAL CONDITIONS: ENVIRONMENTAL | NATURAL VALUES

Type 1. Paju wetland and plein
Type 2-3. Plein with forest
Type 4. Mountain range
SPATIAL CONDITIONS: ECONOMIC | INFRASTRUCTURE AND DEVELOPMENTS

European Railway
Trans-Siberian Railway (TSR)
Trans-Mongolian Railways (TMGR)
Trans-Chinese Railway (TCR)
Trans-Korean Railway (TKR)
Silkroad Express (SRX)
Eurasia Energy Network: Shale gas, Petrol, gas co-development

North Pole Route: Connect end-to-end

To Russia: TSR
Extension to Eurasia Railway

Kaesung Special Economic Zone

To Sokcho

South border developments

To Pyungyang

To Seoul

Railway
Highway
Development appointed
Developed area
SPATIAL CONDITIONS: SOCIOCULTURAL | VILLAGES AND HUMAN ACTIVITIES

- CCZ villages
- Agricultural lands
- Buried mines and military forces

Legend:
- ▲: Villages
- : Agriculture
- : Illegal reclamation
- ★: Military conflict
MAJOR PROBLEM:
DISTINCTIVE THREE BORDERS CREATE THICK BORDER

DMZ:
Nature abandonment
Disconnected North South Network

CCZ:
Fragmentation
Sprawl developments

BORDER REGIONS:
Limited Access
Linear sprawl
DIAGNOSIS: POTENTIALS

Ecological Values: Endangered species

Starting point for cross-border development

Shared Infrastructure: River and Railways
VISION & STRUCTURAL PLAN

목표 및 비전
WHAT COULD BRING A MUTUAL AGREEMENT?

Previous progress and results:

- Sprawl development
- Unstable political circumstance
- Neglected local people
- Kaesung SEZ & Border regional support

Nature as an alternative!

Endangered species in DMZ
Both share mutual ecosystem

Sustaining the unique ecology requires a cooperative management

This can become an opportunity to trigger a cross-border relationship

Local people become activator and guardians of the nature

Darwin’s “The origin of Species”: Galapagos

Image from: http://www.biomedware.com/blog/wp-content/uploads/2012/10/GFigure-2.jpg
VISION

비전
PRINCIPLES

1. Nature to bring a synergy

2. River to invite people, Railwaty to shift nature

3. Research center to link local potentials

4. Institutional organization
VISION

SHIFT THE BORDERS THROUGH THE RIVER AND RAILWAY!

SUB GOALS

ENVIRONMENT:
Preserve the core high-value natures, strengthen and integrate the natural corridors into the human settlements by using existing networks

ECONOMY:
Increase diversity in economic activities by strengthening and specializing local centers with research centers

SOCIAL:
Improve basic needs and support of social infrastructure to keep community’s identity but still open to cross-border activities to bring social synergies.
STRUCTURAL PLAN

계획
“Resilient and specialized urban village with natural landscape”

“Interactive platform for future”

**WHY THIS AREA?**

Sprawl development
N.K: Special economic zone
S.K: tourism zone

Natural destruction

Future cross-border development
ANALYSIS:
INFRASTRUCTURE NETWORK

- Regional road
- Railway
- DMZ (DeMarcation Zone)
- DML (DeMarcation Line)
- National road
- Local road
- Bike path
- Settlements
ANALYSIS: WATER NETWORK

Sources from: http://ecoin.or.kr/xe/index.php?document_srl=11609&ckattempt=1&mid=dmz

0.5 1 2 Km

River Flood risk area Contamination area

Elevation (Topography)

10m 120m 240m
ANALYSIS: GREEN NETWORK

Disconnecting elements

Railway
divide DMZ
ecology corrid

River
contamination
flood dam

Legend:
- DML (DeMarcation Line)
- DMZ (DeMarcation Zone)
- Ecologically high value
- Mountain, Nature area
- Agricultural wetland
- Agricultural field
- Abandoned Agricultural field
- Abandoned agricultural wetlands
CONCEPT

Disconnecting elements

Continous ecology
STRUCTURAL PLAN

CENTRALITY
- CCZ: Endogenous development with research center, supportive social, cultural platform
- Border region: Tourism(Eco-park), Green technology related business
- Supportive growth cities: Residential densification, social infrastructure, public transportation

ACCESSIBILITY
- Imjingak station: Logistic points for distribution
- Train: Global inland logistics, future eurasia line
- Freedom way: Metropolitan network, to harbour and airport Incheon
- East-west border road & bike path: accessibility within border regions

WATER SYSTEM
- Flood risk
  - Imjin river: natural wetlands, dykes, sluice
  - River branches: underground storage with park, productive landscape
- Pollution
  - Sacheon river: purification facilities, purify wetlands(eco-park)

GREEN SYSTEM
- Water front: leisural use, flood prevent wetland parks, accessible by bike
- Railway: Eco-corridor by urban green park, storage& productive use
STRUCTURAL PLAN
5. STRATEGY & SCENARIOS

전략 및 시나리오
STRATEGY 1  TOP-DOWN: SPECIAL RESEARCH ZONE

Environmental interaction: DMZ & CCZ
Current situation

: Railway disconnects ecology system in DMZ

Abandoned agricultural lands: transformed into wetlands

Eco-tunnels: Abandoned due to difficulties of approach DMZ

STRATEGY 1 TOP-DOWN: SPECIAL RESEARCH ZONE

Environmental interaction: DMZ & CCZ
ECO-TRAIN AS NOAH'S ARK

Observatory & Archive (opens when train is connected)

Eco-train (parked for 1 year)

Extended railway (60-80 meters)

Flows of Green

Flows of Data & Documentation

STRATEGY 1 TOP-DOWN: SPECIAL RESEARCH ZONE

Environmental interaction: DMZ & CCZ
STRATEGY 2  BOTTOM-UP: RESEARCH BASES

Social integration: Border regions

Floodplain wetlands: Barnes wetland park, London
Image from:
http://www.urbangreenbluegrids.com/measures/urban-wetlands/
Current situation

- Lack of flood management due to the border condition
**STRATEGY 2** BOTTOM-UP: RESEARCH BASES

*Social integration: Border regions*

- **Natural wetland for flood** (plants and species from DMZ)
- **Water gate** (sluice)
- **Research base with community center** (Education & management flood plain)
- **Observation deck**
- **Dyke with pedestrian & bike path**
- **Existing leisure park**
- **Agricultural field run by local** (Bio agri, Weekend farming)

Local initiatives
Scientists
visitors

Local initiatives
Scientists
visitors
STRATEGY 2  BOTTOM-UP: RESEARCH BASES

Social integration: Border regions

Post Industrial area: Minghu wetland park, Guizhou Province
Image from: http://www.archdaily.com/590066/minghu-wetland-park-turenscape/
STRATEGY 2  BOTTOM-UP: RESEARCH BASES

Social integration: Border regions

Current situation
- Contaminated water flow from Kaesung Industrial complex

Village: Gijeong dong

Dyke and agricultural field

Kaesung industrial complex area

Panmun station

Sacheon River
STRATEGY 2  BOTTOM-UP: RESEARCH BASES

Social integration: Border regions

- Purification eco-park: Four purification stages
  - Plants transported from DMZ
- Research base with community center (Education & management purification)
- Purification facility
- Residential expansion
- Sluice
STRATEGY 3  SYSTEM & IDENTITY OF THE REGION

Regional identity: Kaesung-Paju region
STRATEGY 3  SYSTEM & IDENTITY OF THE REGION

Regional identity: Kaesung-Paju region

Investors
Visitors
students for education
conference
STRATEGY 4 IMPACT ONTO OTHER REGIONS

Economic synergy: Seoul-Kaesung metropolitan

Green tech: Energy, medical, chemical fields from natural plants
1. **TOP-DOWN: SPECIAL RESEARCH ZONE**
   - Environmental interaction

2. **BOTTOM-UP: RESEARCH BASES**
   - Social integration

3. **SYSTEM & IDENTITY OF THE REGION**
   - Regional identity

4. **IMPACT ONTO OTHER REGIONS**
   - Economic synergy
STRATEGY: GOALS, ACTIONS AND STAKEHOLDERS

1. TOP-DOWN: SPECIAL RESEARCH ZONE

**Environmental interaction**

Actions: Setting agreements & development vision

Actors: North and South Korean government, government departments, province and city council, research center organization, railway company, military bases.

2. BOTTOM-UP: RESEARCH BASES

**Social integration**

Actions: Motivation for local endogenous development

Actors: Local farmers, Research organization, Developers, Paju municipality, Kaesung government authorities, Social initiatives of local participants, NGOs, military base.

3. SYSTEM & IDENTITY OF THE REGION

**Regional identity**

Actions: Border regions as one system

Actors: Joint organization of research center, Kaesung and Paju community centers, local municipality, Government department.

4. IMPACT ONTO THE REGION

**Economic synergy**

Actions: Influence onto other regions

Actors: Related business entrepreneurs, universities, North and South research bases, local residents, local municipality, Paju and Kaesung community centers.
IMPACT OF FUTURE CROSS-BORDER DEVELOPMENT...

1. Eco border region
   - Eco-park region
   - CCZ eco-tourism
   - Sub nodes in border regions
   - Seoul & Kaesung growth

2. Green regiopolis
   - Green metropolitan network
   - DMZ national park
   - Seoul & Kaesung growth

3. Border villages
   - Sprawl development
   - Scattered low density villages
   - Land reclamation for agriculture

4. Urbanized regiopolis
   - Seoul-Kaesung metropolitan
   - Sub border cities growth
   - Urban green

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*Figure 5.2.2* Scenarios after strategy. Image by author.
URBANIZED REGIOPOLIS

A regiopolis is a city outside a metropolitan area, that serves as an independent driving force for development within a larger region.
THANK YOU!
Q & A?