



Thimphu 2020

Alternative Visions for Bhutan's Capital City

Prepared for the World Bank Institute
South Asia Urban Management Course

Thimphu, Bhutan
June 2001

Thimphu City Corporation – MIT – World Bank



Thimphu 2020

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“For Bhutan, there are imperatives that transcend narrow economic interpretations...”

“Our independence, sovereignty and security will continue to be dependent upon the assertion of our distinctive Bhutanese identity ... in dynamic and development oriented ways so as to ensure that it maintains its relevance ... for a society in transformation”

“... architects and builders [should] maintain and adapt as necessary our traditional and distinctive forms of architecture ... which can be interpreted by local communities as a commitment to Bhutanese traditions and values and not as alien intrusions. ... It would not be difficult for us to project an image to the world that we might refer to as “sophistication and civilization”. Sophistication would give expression to the types of economic activity we would like to promote, linked to our natural ... endowments, while civilization would refer specifically to the distinctiveness and uniqueness of our cultural heritage.”

“It is possible to be the same, while being distinctly different”

– Bhutan Vision 2020, Royal Planning Commission 1999

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World Bank Institute South Asia Urban Management Course

Participants made significant contributions in analyzing and detailing the alternatives, and their participation is much appreciated.



Thimphu Urban Design Studio

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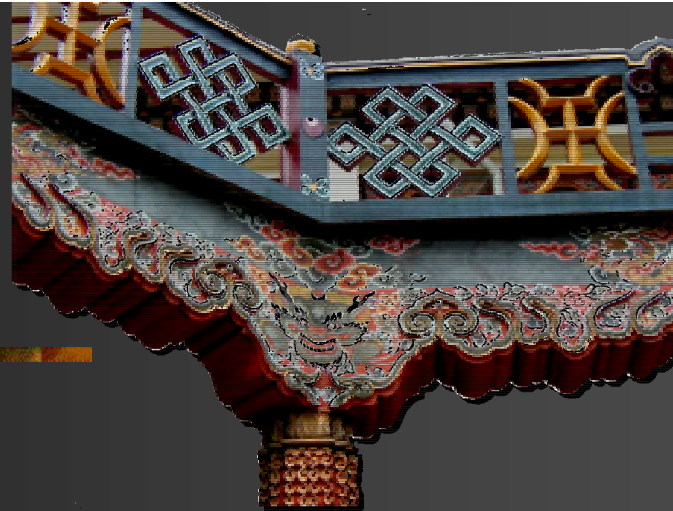
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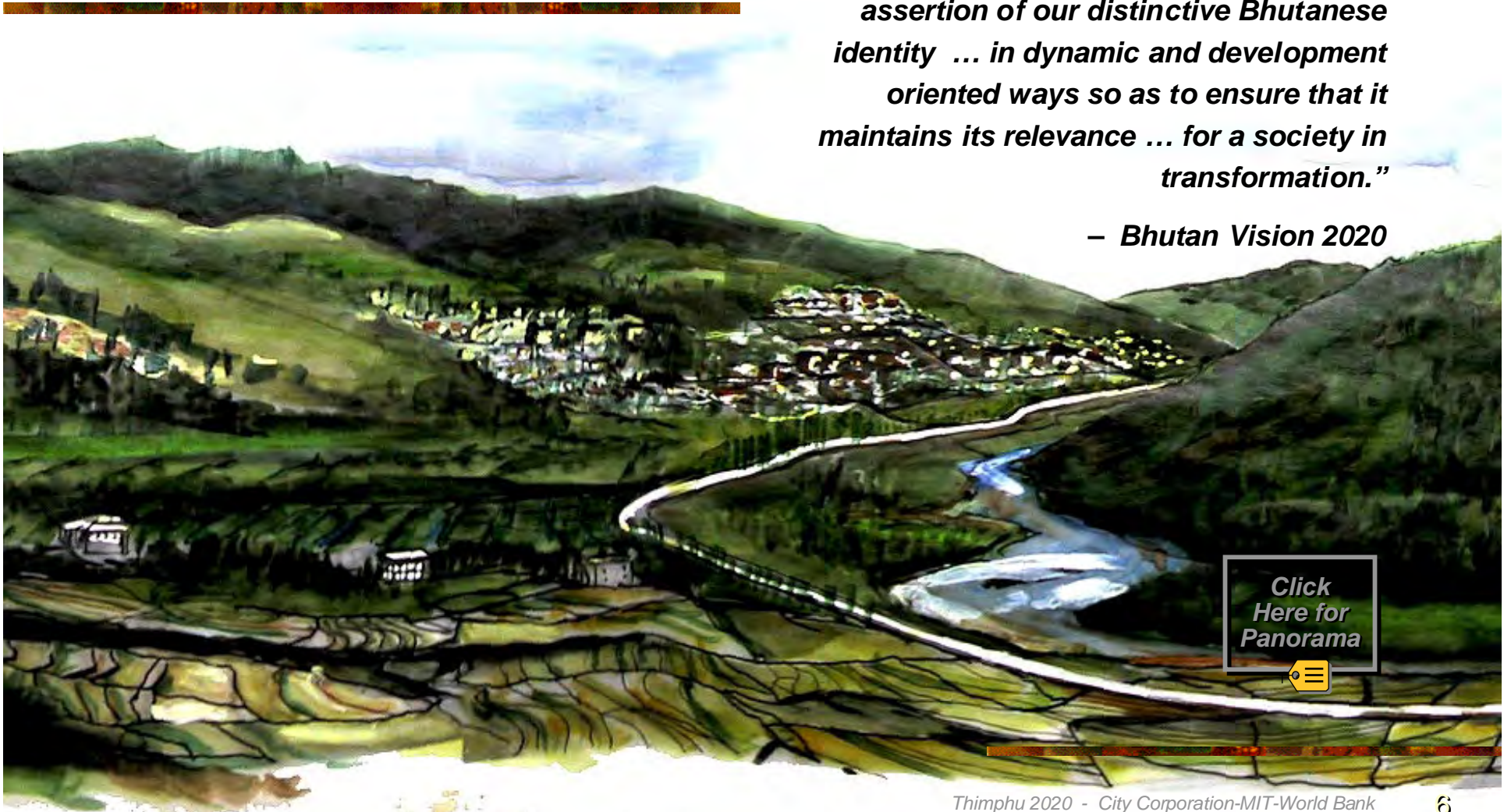
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require QuickTime
and MS Word to
view.
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Introduction

“For Bhutan, there are imperatives that transcend narrow economic interpretations...

“Our independence, sovereignty and security will continue to be dependent upon the assertion of our distinctive Bhutanese identity ... in dynamic and development oriented ways so as to ensure that it maintains its relevance ... for a society in transformation.”

– Bhutan Vision 2020



***Click
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Panorama***

A Course and a Studio

Thimphu will grow, and probably will grow fast. Where and how will this growth take place? How will the pressures of urbanization impact the traditional culture and forms? How will the built environment confront the challenges of globalization, with the opening up to tourism, information technology and the 'new economies'?

Form matters. The spatial layout of the city has profound and long-term effects. Form dictates initial capital investment and sets long-term maintenance requirements.

These issues are particularly acute for Bhutan with its unique cultural and natural assets. It is imperative to strike a balance between accommodating growth and change, while

conserving the unique historical culture and heritage. Time is of essence: change is occurring at an ever increasing pace.

The *Thimphu 2020* study uses the built form as an entry point for exploring a broad range of fundamental issues which include urban land, planning, and economic development. The overarching goal was the development of a livable city, both now and in the future, respecting the land and the cultural traditions.

A studio and a parallel course on urban management explored these challenges. A studio developed three alternative urban growth scenarios for Thimphu, which became the basis for examination in the course.

World Bank Institute South Asia Urban Management Course

This course provided local government officials and planning professionals with a platform on which to learn and explore the key aspects of urban planning and management. Participants were provided with a comprehensive knowledge of the challenges and issues facing urban centers and their administration, and skills for successful leadership and effective management.

Approximately 50 professionals from throughout Bhutan attended the 2-week course.

A key element of the course was the use of alternative development scenarios for Thimphu as vehicles for understanding urban management issues, while exploring tradeoffs that the built form scenarios entail.

*Click Here
for Course
Schedule*



The Studio

A team of Thimphu City Corporation staff and MIT faculty with advanced graduate students tackled the issues of the growth of Thimphu Valley through a design studio. The goal was to prepare alternative scenarios exploring urban planning issues and their implications on livability and the built form. The scenarios highlighted the critical cultural issues and explored ways to incorporate and maintain the traditional heritage while engaging the changing world. Three scenarios were prepared, with a time horizon of 2020 and a target population of 150,000: a 'Mature City' concept with a concentrated center, a 'Cultural City' concept with two subcenters, and a 'River City' concept with a linear development pattern.

The studio process involved six steps:

- Review existing plans;
- Determine goals and assumptions;
- Undertake field investigations
- Identify key questions facing the city
- Determine concepts and directions;
- Design alternative scenarios.



Thimphu Today

“...architects and builders [should] maintain and adapt as necessary our traditional and distinctive forms of architecture ... which can be interpreted by local communities as a commitment to Bhutanese traditions and values and not as alien intrusions”

– Bhutan Vision 2020

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Areas of Investigation

Natural systems

Considered were:

- River and drainage
- Parks and recreation
- Agriculture
- Open spaces, forests, hillsides
- Hazards: earthquakes

Types of buildings

Considered were:

- Commercial, housing and institutional types
- Dimensions – lots and buildings
- Construction economies
- Reasons for and attitudes about types

Social and cultural aspects

Major form elements

Considered were:

- Downtown form and function
- Royal City vs the local city; symbols; Image to outside world; scenography; regional context

Settlement patterns

Considered were:

- Clusters
- Why these clusters groupings
- Spaces between

Real estate market

Considered were:

- Land rents and uses
- Roads and access

Natural Systems

Thimphu exists today due to the natural systems that underlie it. The Thimphu River, feeder streams, and hillside forests have been the source of life, providing agricultural sustenance and general livelihood for centuries.

The city's natural systems can be classified into three categories:

- Natural (forest, bush cover, river, and watersheds)
- Agricultural (orchards, rice paddies, grazing lands)
- Recreational (public open space, parks, stadium)

The two latter categories are dependent upon the first. Significant rice paddies around and in the city are fed by an extensive irrigation system. Streams cross-cut the urban fabric at regular intervals, providing pathways for pedestrians, and rights-of-way for under-ground waste. The forests' abundance of timber and wildlife emphasize the city's dependence on the surrounding natural resources.

The steep, rocky terrain limits where agriculture can take place. Hence, the majority of agricultural land in the valley is clustered south of the city. The future use of this land is now uncertain due to the construction of a new, four-lane expressway that will bisect the valley and spur development. Furthermore, relatively little

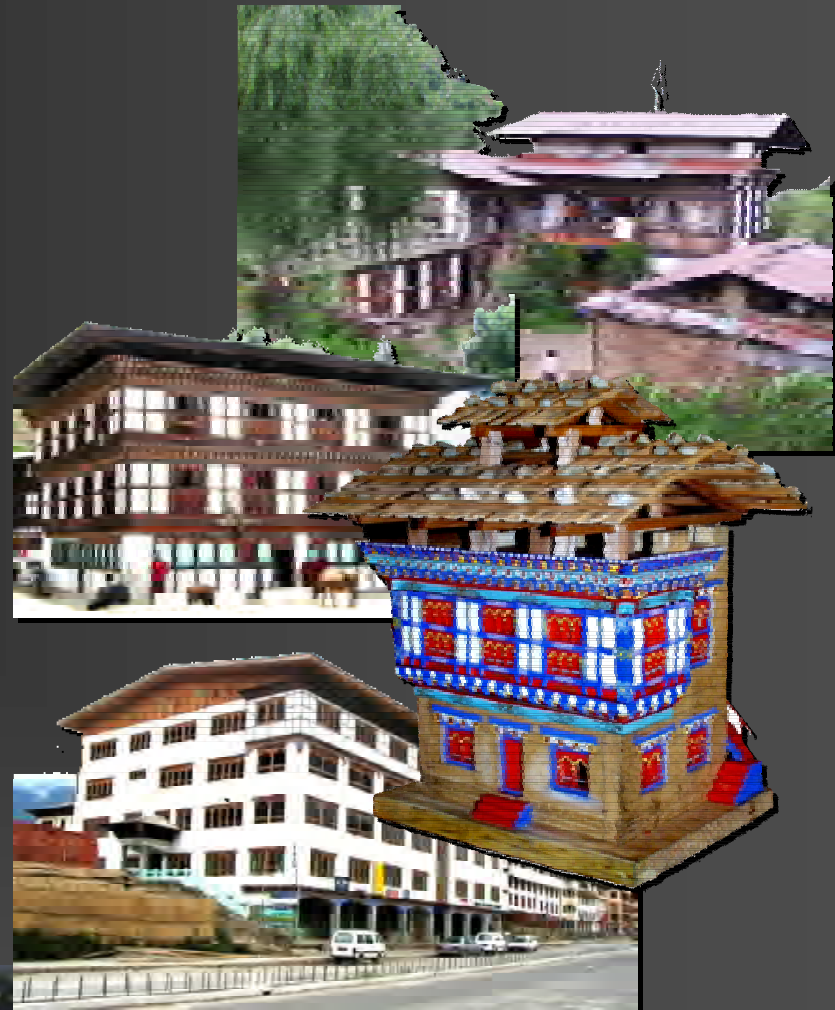


land within the city, or expansion areas, has been set aside for public open space or recreation.

Planning is needed to maintain the balance among agriculture, public green space, and development, or the elements that initially brought life to the valley will be lost.

Types of Buildings

Traditional forms of building in the valley range from the traditional, 2-3 story rural home to the enormous Trashi Chhoe Dzong. More recently higher-density 4-5 story housing, commercial, and mixed-use buildings have begun to be developed in the central city. This poses an issue of how to adapt traditional styles to new uses and densities. Some new forms have emerged, such as the 5-story office building with a ground floor retail arcade. Traditional wood and packed earth construction is giving way to reinforced concrete and even prefabricated technologies that try to mimic traditional forms and decoration. In the process some qualities of traditional architecture are being lost, a key issue for the city. Pressures to accommodate a growing population and to modernize building methods is encouraging a competitive construction industry.



Social and cultural influences

Bhutanese life includes a rich history and sophisticated layering of cultural and social customs, ranging from annual national festivals to daily family worship and activities. This layering of uses is reflected in the physical form of Thimphu and will continue to influence the future growth of the Valley and serve as an important framework for community participation and neighborhood vitality. The daily routine of the citizen begins with morning prayer and concludes with social time among family and friends. This social life extends to weekly and annual patterns as well as cultural activities of the residents. Weekends are spent at the central market place, visiting Chortens, walking in the forest, traveling to neighboring towns to visit relatives, or watching archery matches at the local grounds. Annual religious festivals and rituals are practiced as community events at the local and national level. These include Coronation Day with parades and cultural performances by school children and the Tsechu Festival at the Trashi Chhoe Dzonga.



Settlement patterns

The organization of building forms in Thimphu ranges from early, unplanned settlements to highly structured patterns of government housing. Some key types are described below.

Traditional agricultural villages: Buildings are staggered in plan and section to preserve access and views to surrounding fields.



Traditional commercial development: is linear and allows for open views of mountain between buildings and down streets.



Recent residential development: Efforts have been made to plan by establishing a grid of streets, with plots arranged as desired by individual owners.



Government sponsored housing: has tended to be developed with repetitive forms that follow the topography in parallel rows.



Major form elements

Royal Government Presence: The primary Royal Government buildings are clustered at the northern end of the Thimphu core area. Surrounded by open space, a formal entry roads leads to the heart of the kingdom, the Trashi Chhoe Dzong. The High Court, National Assembly and Royal Arts Center complete the park-like setting for the national government. Additional ministries and offices are located throughout the Greater Thimphu area. The Royal residences of the King and Queen sit high above the town on the city's edges.



Downtown: Topography dictated the development of Downtown Thimphu. Norzin Lam Road defines the commercial heart of downtown Thimphu, while the weekend market and sports grounds located on the river, and the residential areas situated above and to the west of downtown complete the development zones. Originally lined with two-story traditional structures, many of the building in the commercial core are being replaced by four-story mixed-use concrete buildings. There is a concerted effort to maintain the street wall with arcades along commercial streets. However, due to topography, some four-story buildings are actually six-story on one side.

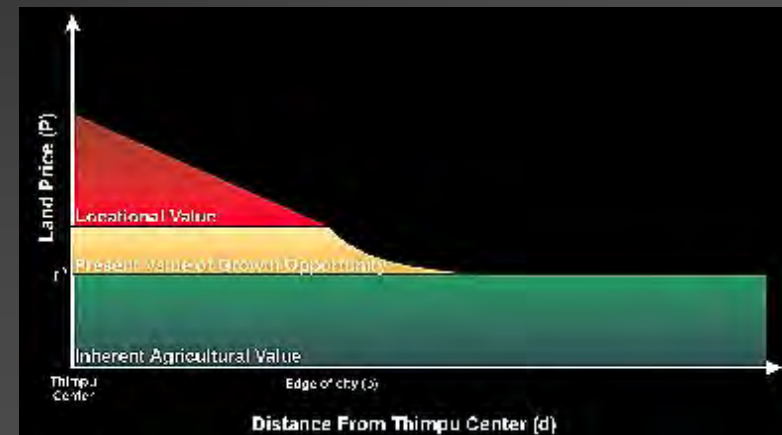


Roads: Thimphu's unique topography determined the layout and position of the city's roads. Major roads run in a north-south direction parallel to the river, while smaller roads snake up the hillside providing access to residential areas. Pedestrian paths leading to the commercial areas and river also provide circulation throughout the city. The planned expressway will have a large impact on development; shifting land values, decreasing transportation costs, and increasing potential growth opportunity in the southern part of the valley.



Real estate market

In recent years, downtown Thimphu has been under pressure for higher density development, that was recently recognized by raising the height limit to five stories. Speculation has now spread to land recently changed to Urban classification, where rice paddies are being bought up in anticipation of growth. This has been fueled in the south by the construction of a new highway. For the moment, the government has put a moratorium on construction in the expansion areas until a structure plan is adopted.



Existing Strategic Plan

- Inner city targeted to absorb 100-130,000, depending on assumptions.
- Expansion areas absorb 43,000 minimum – virtually all land at low density.
- Agricultural plots reorganized to rectilinear form to facilitate development.
- Minimum land reserved for parks and open space.
- New valley expressway and arterial roads planned.



Alternative Scenarios

It would not be difficult for us to project an image to the world that we might refer to as “sophistication and civilization”.

Sophistication would give expression to the types of economic activity we would like to promote, linked to our natural ... endowments, while civilization would refer specifically to the distinctiveness and uniqueness of our cultural heritage.”

– Bhutan Vision 2020

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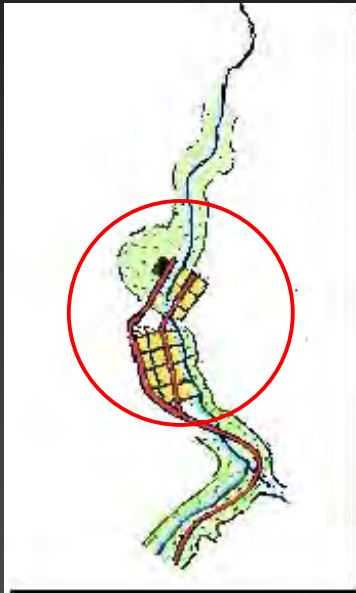
Assumptions and Goals

- Scenarios embrace Bhutan Vision 2020: Conserve landscape and culture of Bhutan; this is particularly critical in the capital as symbol and example.
- Scenarios accept existing planning horizon for Thimphu: **150,000 population in 20-25 years.**
- Amount of development in expansion areas is an issue of public policy (some will occur).
- All 150,000 population could be accommodated in inner Thimphu at low density compared to most cities (4 –6 stories, 20% lot coverage, using information from existing structural plan)
- Therefore, the city has choices. The central question is: ***What kind of city do you want?***

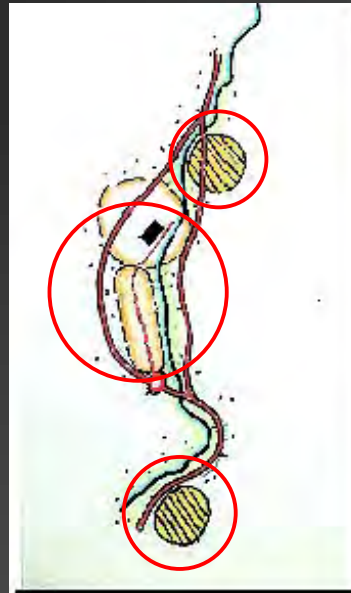
Key Questions

- What will make Thimphu a **great capital city**?
- How do we **improve accessibility** while minimizing the impact of the car?
- How do we **maintain cultural and natural assets** in the face of pressures for modernization?
- How do we **attract and accommodate visitors** to the city to support economic development while supporting heritage and culture?
- How do we address the **housing shortage**?
- How can we more **effectively plan** for the city?

The Three Scenarios



1. The Mature City
Concentrated center



2. The Cultural City
Subcenter development



3. The River City
Linear development

1. The Mature City

Central Thimphu is consolidated and densified to absorb maximum growth, allowing much of the traditional valley agricultural landscape to be conserved as a new National Park.

Mature City Team

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Key Characteristics – The Mature City

1. What will make Thimphu 'A Great Capital City'?

- A formal park setting for the Dzong, the Assembly, the High Court, and other symbolic structures will be joined with a park along the river.
-

2. How can we improve accessibility while minimizing the impact of the car?

- The expressway in the south is implemented as designed, but splits into two urban boulevards that move through the downtown and royal government district, linking them together.
 - Additional boulevards run immediately above and below Norzin Lam, connected by cross streets, and provide a block framework for downtown development.
-

3. How do we maintain cultural and natural assets in the face of pressures for growth and modernization?

- Selected historic structures and places are preserved in the downtown. Extension areas are interspersed with compatible new higher density structures.
- A Thimphu Chu National Park is created to protect rice paddies and traditional landscape in the river valley north and south of the core; farming is subsidized but land may be sold only to government.

Key Characteristics – The Mature City (cont.)

4. How do we attract and accommodate visitors that support economic development while strengthening heritage?

- Thimphu serves as a base for exploration of the new National Park and the outlying mountain areas of Bhutan.
 - Hotels, shopping and services, and museum are concentrated in Thimphu as elements of a more cosmopolitan structure.
-

5. How do we address the housing shortage?

- Infill housing is developed on scattered sites in the core area – on eastern slope and in downtown.
 - Higher densities and heights (7-8 stories) are allowed near main streets.
 - Mixed income throughout and mixed use (housing over shops and offices) is encouraged.
 - A mix of public and private investment is used to finance development.
-

6. How can we more effectively plan for the city?

- Expand the city's planning function to create a Thimphu Development Authority, with the ability to finance and implement what is planned, and to review design and development.
- Centralize planning functions at city level in the core area.
- Establish a National Park under Royal jurisdiction in the expansion areas – to be managed and to protect the landscape. Subsidies given to maintain traditional farming.

Greater Thimphu

The Mature City

Concentrated center

Thimphu takes on a dense compact urban form preserving the agricultural environment north and south of the city as a National Park. The Park would serve as an urban growth boundary, limiting development to the city center and hillside edges of the valley. A 'Royal Government District' would concentrate ministries east of the Dzong, set within a formal park that would extend down the river into the downtown. Entering Thimphu via the new highway, visitors enjoy views of rice paddies, mountains, and villages: the essence of Bhutan.

National Park along River

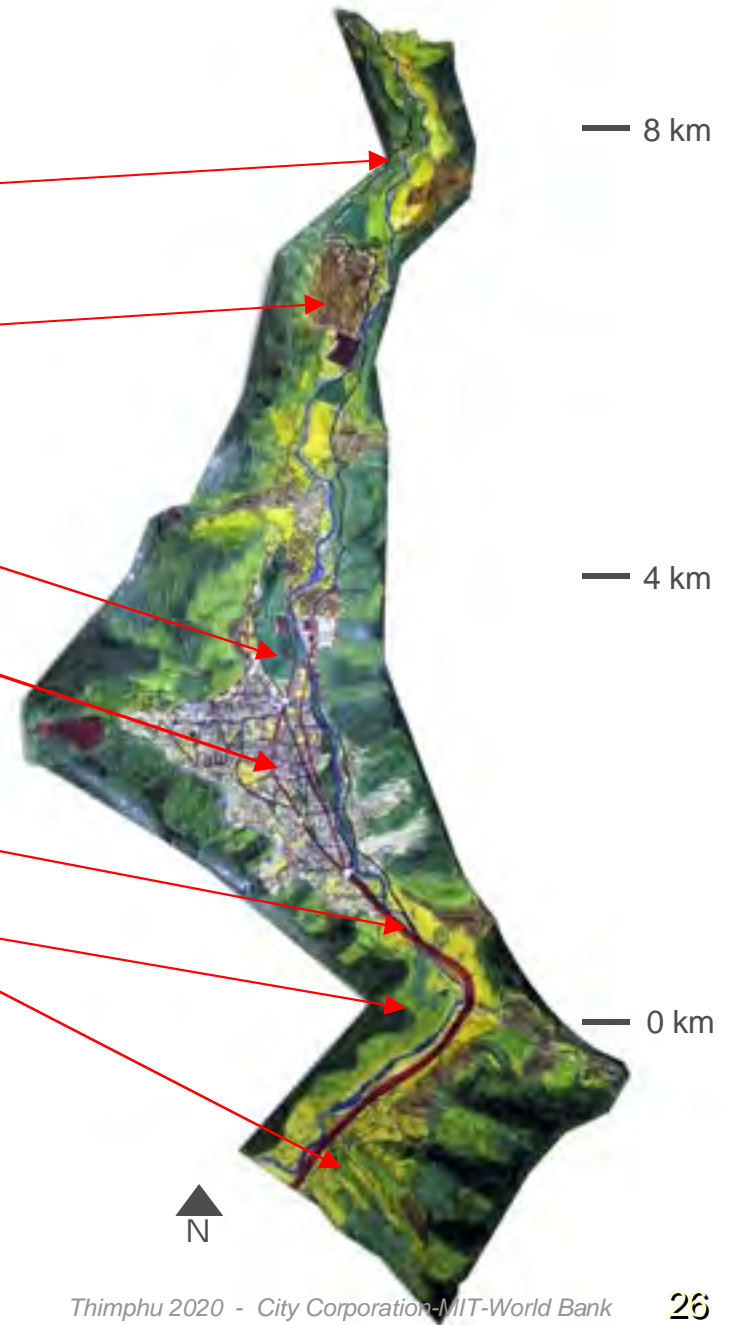
Low density edge Development

Royal Government District

*Consolidated downtown area
(150,000 population)*

Expressway

National Park along River

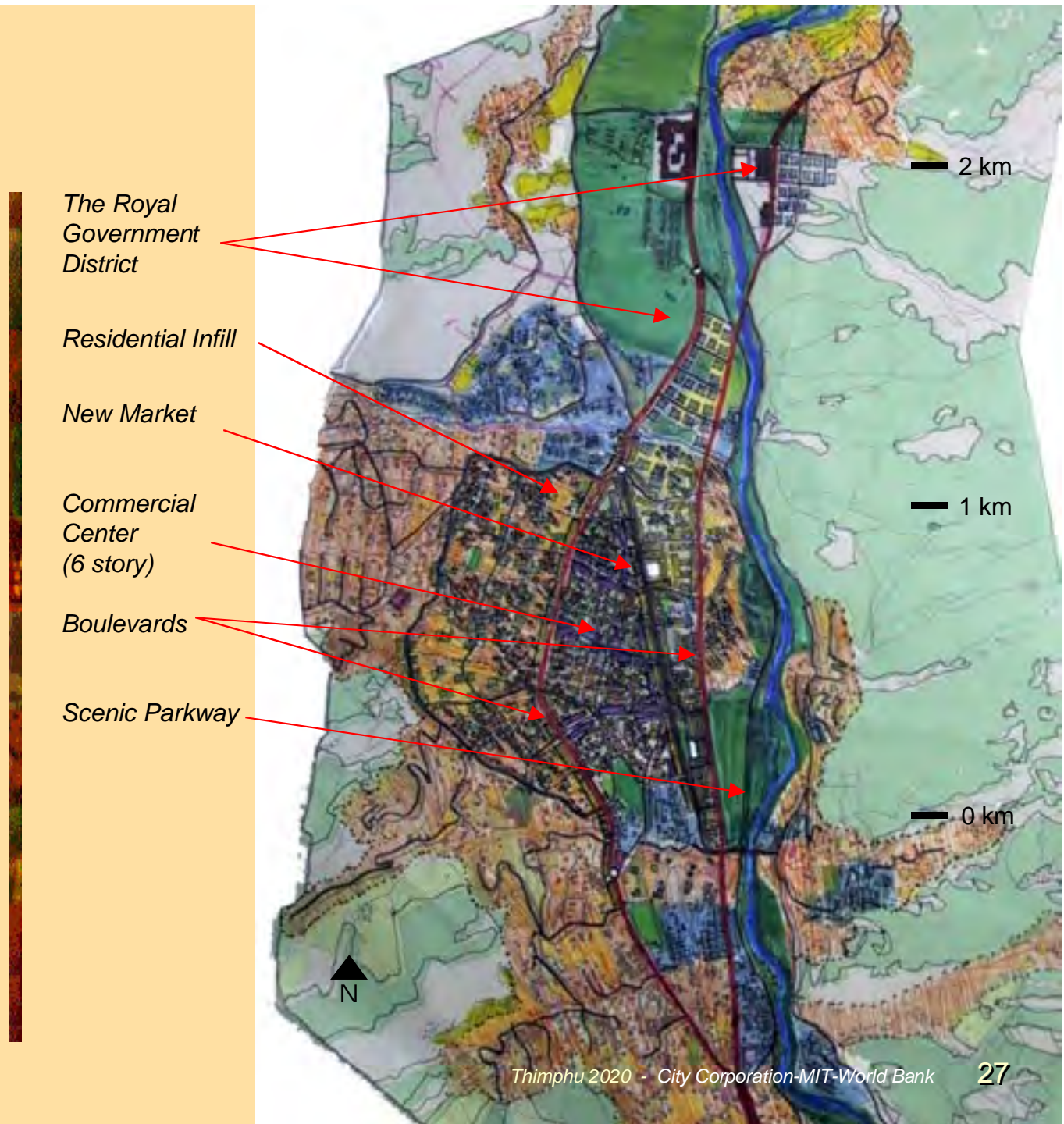


Central Thimphu

The Mature City *Concentrated center*

Boulevards extend from the end of the highway through the city, linking it with the 'Royal Government District'. A park and scenic parkway along the river connect the National Park into the downtown. These elements reinforce a coherent image for the capital city.

A high density commercial core is developed between the boulevards, including space for a new market relocated from the river. Infill housing consolidates a new neighborhood on the western hillside.





Downtown Area

Two tree-lined boulevards distribute traffic and strengthen the formal image of the capital city.

Existing secondary streets are rationalized to create blocks, and an armature for higher density development.



Commercial Center

Street intersections focus development and create activity nodes along boulevards.

A new market provides a higher quality setting for this key activity and relief from the strong linearity of the main street.

The new market area has higher density buildings behind.



The existing urban scene

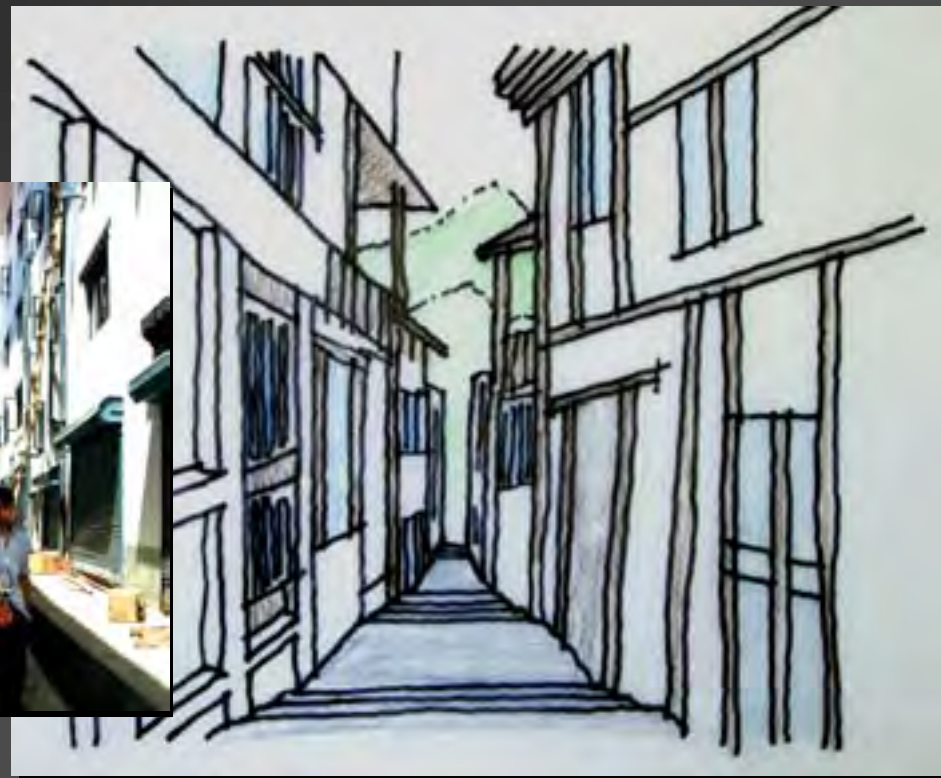


Residential Infill

Appropriate design of infill construction on slopes can preserve views of hillsides and insure that adequate sunlight penetrates units.

Neighborhoods have ample garden space for residents and a mix of building types and incomes.

Pedestrian paths leading to parks supplement access through the neighborhood.



Park System

The creation of a national park in the valley is *intended to limit growth and protect the agricultural tradition*. The road along the river is maintained as a river parkway leading to the Royal Government District, which expands across the river from the Dzong and towards the edge of the main city .



Opportunities & Problems: The Mature City

Opportunities

- Preserves agricultural land
- Optimal use of existing infrastructure and services
- Ease of transportation, compact circulation
- Reduces pollution
- Efficient Management
- Return to traditional cluster living style (on a larger scale)

Problems

- No plan for development of peripheral areas
- Architectural issues: Can 5-6 story buildings preserve traditional architecture?
- Potential traffic congestion, lack of parking
- Demolishing of private buildings to increase density; resistance to change

Management Considerations: The Mature City

<i>Service</i>	<i>Positive</i>	<i>Negative</i>
<i>Water Supply Sanitation</i>	Easy to supply, less length and therefore lower cost	Network must be redesigned for taller buildings, disruption of other services, accessibility an issue in construction?
<i>Solid Waste</i>	Easier to collect waste, much cheaper	
<i>Schools</i>	No major road crossings, common directions for protection	Expansion of school area and playgrounds constrained
<i>Health Clinics</i>	Allows focus with higher level of services	Potential space constraints
<i>Roads</i>	Easy access to all services	Congestion, wear and tear on roads is high, maintenance cost is high
<i>Parks</i>		Space constrained inside city, but offset by surrounding park areas
<i>Pubic Toilets</i>		Customary maintenance issues

Livability: The Mature City (Thinking as a resident)

Why do *you like* this town that you're living in?

- Countryside is close
 - Live close to each other
 - Easy access to services, amenities
-

Where would *you live*?

- On slope, near edge
 - Close to open spaces
 - Close to working place
-

What are *you proud to show* foreign visitors?

- Along the river walk to Dzong and open space surrounding it
- The tower
- Everything is within walking distance!

*Click here for
Summary
Presentation by
Course Team.*



2. The Cultural City

Historic fabric of core city is preserved and enhanced as a cultural and educational setting at low density. Major growth is absorbed in two new towns at the north-south ends of the valley.

Cultural City Team

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Key Characteristics – The Cultural City

1. What will make Thimphu 'A Great Capital City'?

- Conservation zone is established around Dzong, high court, and Assembly to reestablish traditional setting with agriculture and natural features. Other structures are removed.
 - Relocate ministries and administrative functions to expanded town north of the Dzong.
 - City core becomes idealized symbol of Bhutanese culture.
-

2. How can we improve accessibility while minimizing the impact of the car?

- Expressway south is built as designed, but splits into two urban roads that ring the downtown: one east of the river, the other to the west. These reunite north of the Dzong, ending at north new town.
 - Historic downtown is partially pedestrianized; served by high-tech, low-cost bus system on dedicated streets. Intercept parking and transit nodes are located at each end of expressway.
 - Traditional long, uninterrupted streets parallel to the river are kept; linked by pedestrian paths.
-

3. How do we maintain cultural and natural assets in the face of pressures for growth and modernization?

- Downtown is emphasized as a traditional enclave, where all historic structures and settings are preserved and enhanced. New buildings and places are strictly traditional in style.
- Dzong area is conserved and returned to a traditional setting.
- Development of educational and cultural activities and facilities are promoted.

Key Characteristics – The Cultural City (cont.)

4. How do we attract and accommodate visitors that support economic development while strengthening heritage?

- Downtown becomes a living museum and attraction — a venue for learning and experience with facilities for traditional crafts, dancing and music, and festivals.
 - Interpretation occurs throughout the city, focused at a new *National Museum of Architecture and Building* located near the south transit node.
 - Smaller traditional hotels and services are located within the historic fabric of downtown; larger hotels and meeting facilities are located in 'Gateway South' new town.
-

5. How do we address the housing shortage?

- Major new housing of a variety of types, densities and income are created in the new towns.
 - Limited low-scale housing is constructed within the historic downtown area.
 - Consolidate neighborhood on eastern slope with infill housing. Local shops, services along ring road.
 - A mix of public and private investment finances development.
-

6. How can we more effectively plan for the city?

- Non-profit corporation is established to plan and guide development of new towns in cooperation with Thimphu City. The Corporation becomes conduit for international financing.
- Downtown 'Thimphu Historic District' is established with citizen board to administer design guidelines.
- Tax increment levied on commercial/visitor uses to finance downtown civic improvements, services.

Central Thimphu

The Cultural City

Subcenters

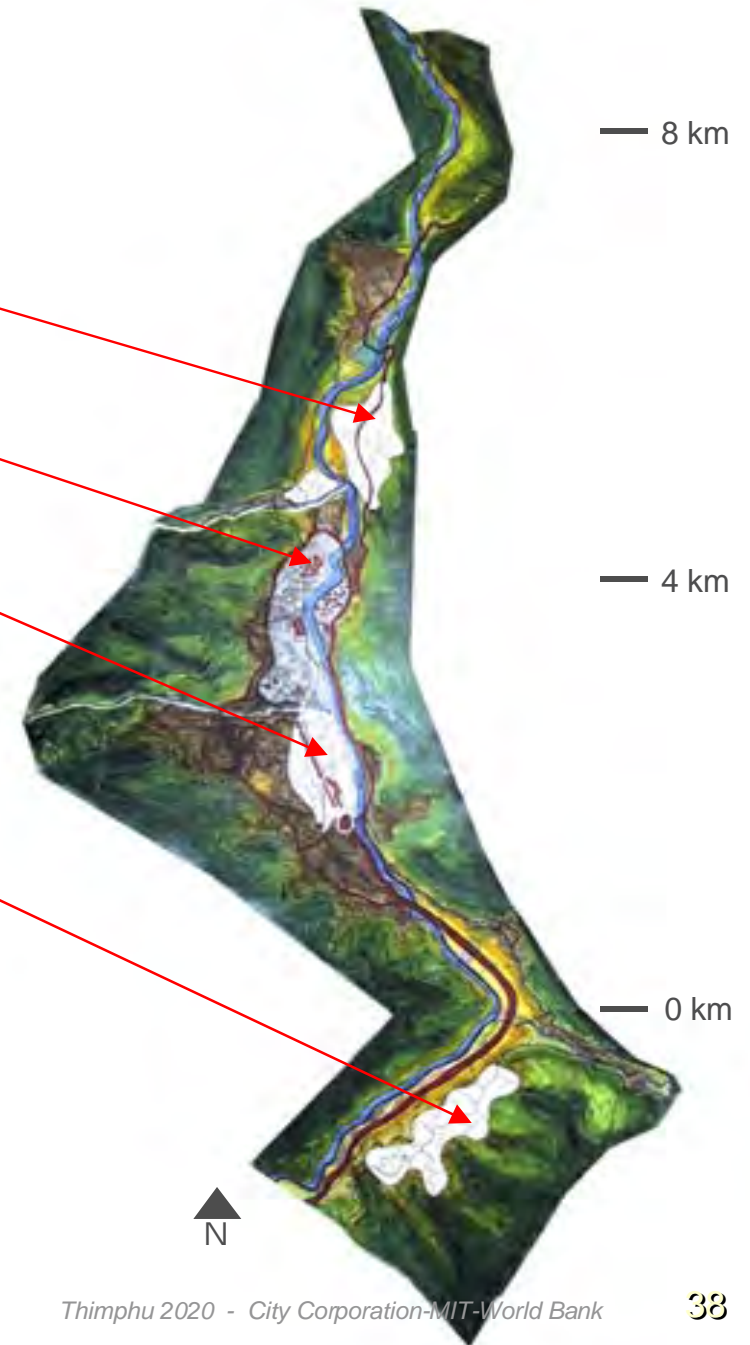
The Cultural City evolves primarily as a response to the dynamics of economic conditions. Significant upgrading of the existing historic center will precede the establishment of a new town 'Gateway South' focused on education, the development of which will be tied to the completion of the expressway. Similarly, expanding government functions will provide the focus for a new city to the north – a diplomatic city. The traditional landscape setting of the the Dzong, the Assembly, the High Court and other key buildings will be conserved to enhance their role as a symbol for the nation.

*New Town;
government focus
(30,000 pop.)*

*Dzong area conserved
as traditional setting*

*Downtown preserved
and enhanced:
Cultural focus
(80,000 pop.)*

*New Town 'Gateway
South' with educational
focus
(40,000 pop.)*



Central Thimphu

The Cultural City

Subcenters

Diverting from the expressway, ring roads carry traffic around the historic city center, which will be partially pedestrianized. At the end of the expressway, a new transportation hub will facilitate transfer to a low-tech, high-volume transit system, looping around the downtown. Within the downtown, traditional structures will be conserved and new ones constructed to create a more integral setting focused on a new 'Museum of Bhutanese Architecture and Construction'. The museum and associated public space will complete the existing Clock Tower square.

Ring roads

Conservation zone around Dzong

Consolidated neighborhood

Downtown traditional setting; pedestrian

Transit loop

Transit hub; remote parking





The Historical Center

New 'Museum of Traditional Bhutanese Architecture and Construction' anchors development.

New structures reinforce traditional setting.

Transit hub provides parking and low-tech transit access point.





The cultural heritage



Opportunities & Problems: The Cultural City

Opportunities

- Builds a great Cultural City
- Tourism benefits, jobs
- Model city for traditional architecture; supported by research and development center
- Preserves environment, history
- Reduces congestion at center; Transit system linking sub-centers
- Planned developments
- Choice of where to live: satellite towns or historic city

Problems

- Overexploitation by tourists: center overrun
- Shortage of materials hampers traditional architecture due to forest management policies (existing problem)
- Increased land competition? Increased pressure to develop agricultural land in between
- Two sub-centers increase costs for commuting, and duplicate costs in providing services and infrastructure

Management Considerations: The Cultural City

Services	Positive	Negative
Roads	Already existing	
Drainage	Localised drainage, efficient, no pollution to river	
Water Supply Sewage and Solid Waste	Allows planning of an overall system	
Medical facilities	New hospital caters to the neighbouring villages: relieves pressure on referral hospital	Higher initial costs from need for three systems
Recreation spaces	No monotonous single space: Each town has independent community recreation space	
Maintenance	Maintenance reduced due to better planned networks. Possibility of privatising infrastructure facilities	

Livability: The Cultural City (Thinking as a resident)

Why do *you like* this town that you're living in?

- Lot of facilities; environment friendly; convenient for day-to-day needs; employment opportunities, sense of friendship and community (wide diversity), choices
-

Where would *you live*?

- Most stay in city center: when young stay in 'romantic' area (south), and when adult, near workplace and school (center), and when older, near religious and cultural center (north)
-

What are you *proud to show* foreign visitors?

- Cultural monuments and architecture, handicrafts and dress, natural beauty, market area (lots of people), games (archery), boulevards and footpaths, dances

*Click here for
Summary
Presentation by
Course Team.*



3. The River City

Higher density settlements of different sizes are developed up and down the river, including in the central city. Settlements provide housing, employment, community shopping and services.

River City Team

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Key Characteristics – The River City

1. What will make Thimphu 'A Great Capital City'?

- The river becomes both a setting for functions and an image of the capital.
 - Ministries and government functions are developed at various locations along the length of the river.
-

2. How can we improve accessibility while minimizing the impact of the car?

- Expressway built with no frontage roads; instead a new valley local road – primarily for public transit – winds in and around expressway connecting settlements. Downtown, the road east of river is widened.
 - More bridges give greater connectivity between development nodes across river, particularly downtown.
 - Natural pathways follow streams to provide pedestrian links perpendicular to the river.
-

3. How do we maintain cultural and natural assets in the face of pressures for growth and modernization?

- The river and rice paddies are conserved and maintained as a cultural asset, where not otherwise developed for settlements
- Downtown retains its traditional setting with more green spaces at several scales linking to the river.
- The total area along the river becomes a cultural and national presence.

Key Characteristics – The River City (con.)

4. How do we attract and accommodate visitors that support economic development while strengthening heritage?

- The river becomes a spine for visitor activity in the valley.
 - Settlements would naturally develop different themes and reasons to attract visitors – one a museum of agriculture, another a museum on architecture, another a conference center, etc. Visitors move between them with a low-tech transit system.
 - Hotels and services are scattered among the settlements.
-

5. How do we address the housing shortage?

- New, higher density housing clusters are developed around existing settlements along the river and in the downtown area. Mixed income development is encouraged.
 - Housing types and density would vary as appropriate to the size and location of each settlement.
 - A mix of public and private investment is used to finance development.
-

6. How can we more effectively plan for the city?

- Cooperating planning agreement among levels of government spells out responsibilities along the river.
- Growth boundaries for higher density settlements and an 'urban code' to guide design and development.
- Public infrastructure investment along river and in settlements to attract private investment.

Greater Thimphu

The River City

Linear Development

The River City alternative respects Thimphu's existing relationship with the surrounding natural landscape and village settlements. Using the existing settlement patterns as cues for future development, the unique character of the valley can be maintained and flourish as a sustainable city in the 21st century and beyond. The city will be woven together with a natural public space system organized by pedestrian walkways. The future expressway – “The Greenway” – will pass through rice paddies and be planted with indigenous Poplar trees and seasonal Bhutanese flowers, creating a unique gateway into the Capital City.

Dense Settlements expand around existing (1000-3000 pop.)

Institutional Centers

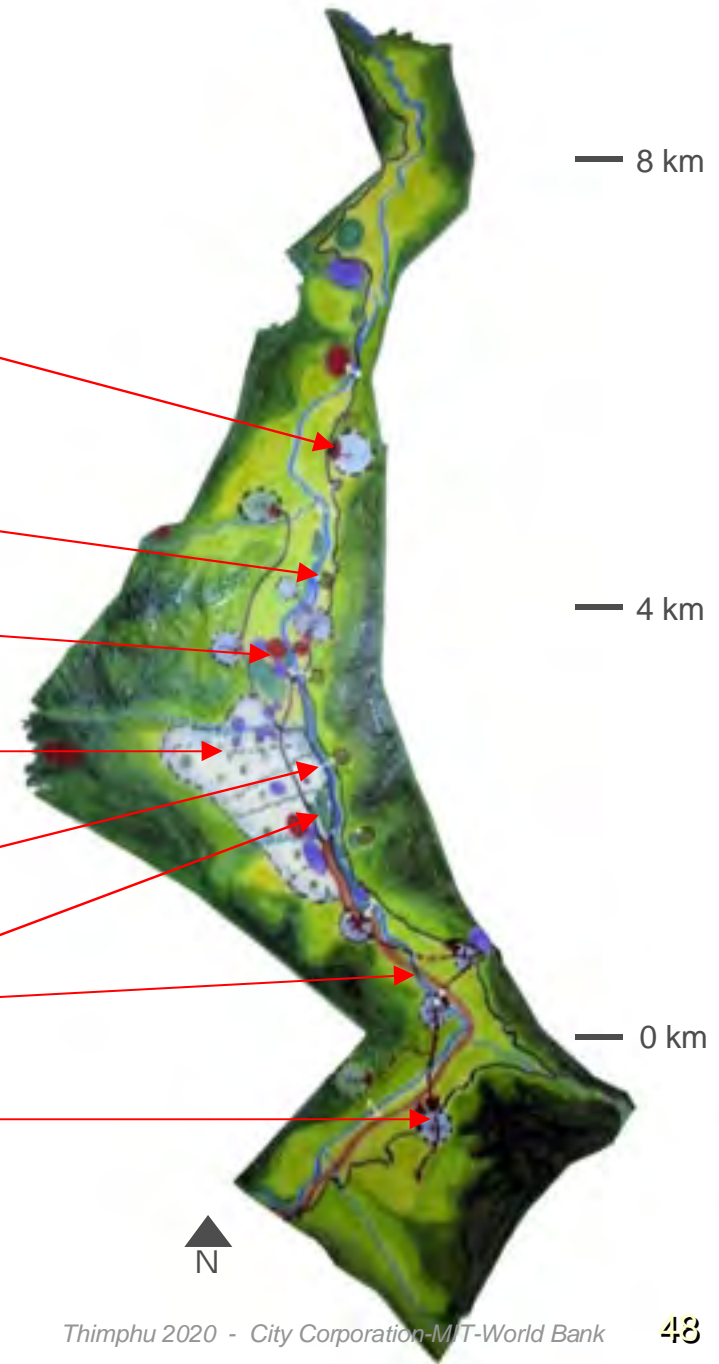
The Royal District

“Green” Downtown (80,000 pop.)

Public Amenities

The ‘Greenway’

Dense Settlements (1000-3000 pop.)



Central Thimphu

The River City

Linear Development

Sensitive consideration is given to enhancing and expanding the existing settlements and spatial patterns along the River and its tributaries. Phased growth of the settlements will follow development of infrastructure and network systems that avoid large initial capital costs, addressing management and economic feasibility issues. Decentralization will provide natural “checks and balances” through community participation and social networks that can prevent undesirable planning results. No settlement relocation is considered.

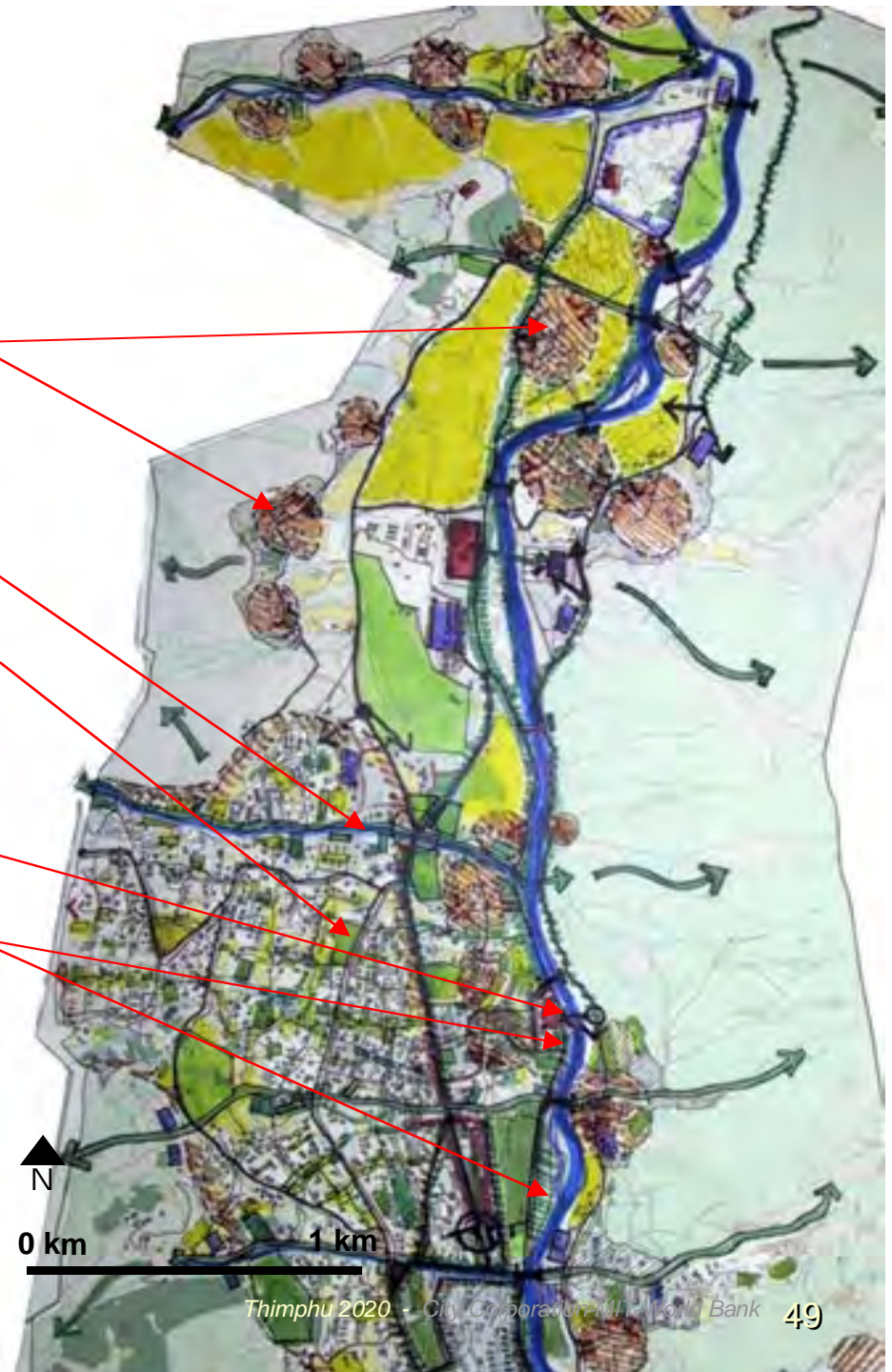
Dense Settlements expand around existing development

Stream Pathways

Community Spaces

New Bridges

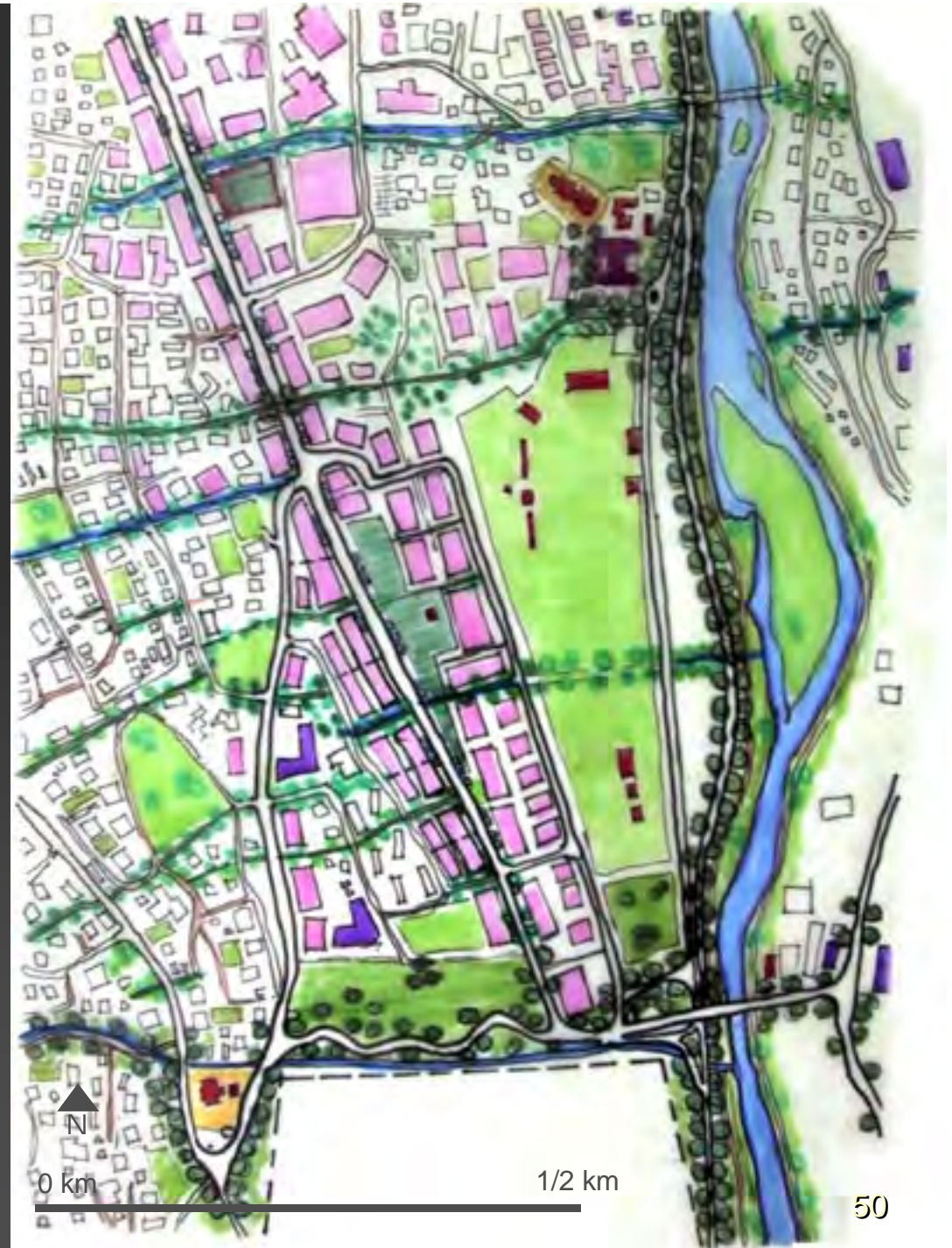
Enhanced Riverfront Activities





Urban Pathways

The existing cascading streams can be developed further to provide pedestrians with attractive, *'wayfinding' pathways to move throughout the city.* They can also serve as green space where people can congregate.





Village Patterns

Better infrastructure within existing villages improves the quality of life and makes more efficient use of the land.



Bridges

Additional vehicular and pedestrian bridges link focused development east of the river to downtown Thimphu and beyond. The bridges also provide residents with a stronger relationship with the river while providing them with greater access.



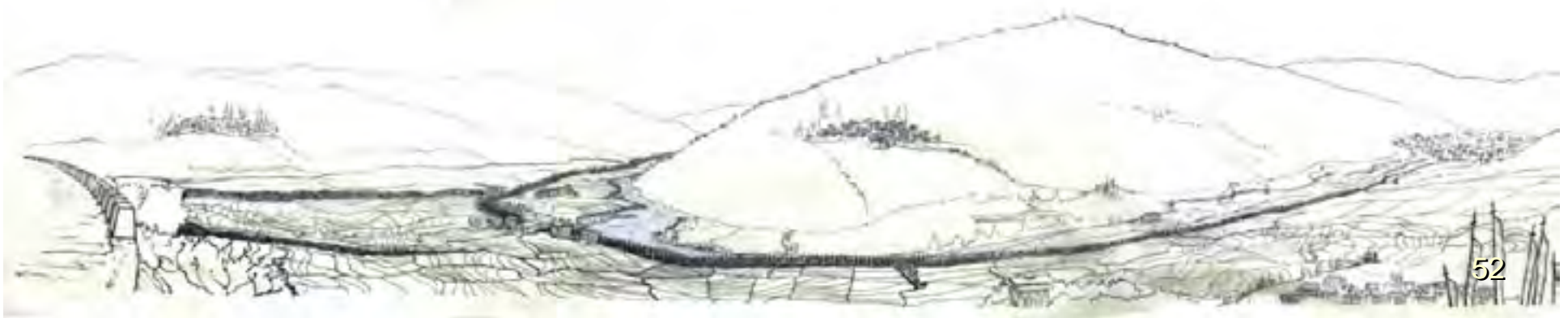
The 'Greenway'

The new highway is buffered with trees throughout the valley conserving the pristine nature of the rice paddies and natural landscape. Existing and new villages are densified to allow existing agricultural land to be preserved in its current state while maintaining the community scale of village life.



Pedestrian Network

Additional traditional bridges connect villages to each other and improve access to public amenities.



Opportunities and Problems: The River City

Opportunities

- Guidelines for development follow traditional accustomed patterns
- Increased economic potentials for dispersed communities
- Maintains unique landscape and cultural heritage
- Lower, diffused density
- Provides more public and community spaces, and easy access to green areas
- The best development 'form'?

Problems

- Danger of sprawl
- More difficult management due to many growth poles
- Public transport complicated, constrained, although linear valley system encouraged
- Infrastructure more dispersed and higher costs
- Increased pressure to develop agricultural land
- Potential river pollution; higher open space maintenance

Management Considerations: The River City

Service	Positive	Negative
Water Supply Sanitation	Follows river; water source close	Installation and maintenance costs higher since longer networks
Schools Health services	Encourages more private and community involvement in active role	More monitoring necessary: more administration
Transportation	Reduces traffic congestion, self-contained settlements reduce commute time and reinforce community and family life	Requires transportation link to center
Electricity	Along open spaces makes cost effective	Longer network = higher costs

Livability: The River City (Thinking as a resident)

Why do *you like* this town that you're living in?

- Environment is preserved. The open space; allows less crowding and is consistent with traditional way of life
-

Where would *you live*?

- Far from downtown, near the river
-

What are you *proud to show* foreign visitors?

- Around and along river and the steams, across bridges which highlight views
- Dzong and other historic monuments
- The many green corridors

*Click here for
Summary
Presentation by
Course Team.*



Towards a Consensus Vision

*“It is possible to be the same,
while being distinctly different”*

– Bhutan Vision 2020



Next Steps

Which scenario to choose?

None of the scenarios are sufficient for a final plan, but are intended as conceptual approaches for exploring alternatives. Likely, a combination of the three approaches would be adopted, where the strongest elements of each would be combined with the realities of existing development into a comprehensive development strategy and plan.

For example, the Mature City scenario with concentrated growth at the center may be appropriate to balance with smaller developments to the North and South similar to the approach in the Cultural City. Here the advantages of lower servicing costs from a concentrated approach are combined with anchors at either end drawing off potential growth in the valley.

Or, the River City concept may be combined with the Mature City concentrated center. Some of the existing villages would be allowed to grow, but the bulk of development would be concentrated at the center.

Another option would be a Cultural City concept with its growth at either end, while also allowing some villages to expand.

And after 2020?

Each of the scenarios severely curtails or avoids altogether development in the valley. *Even in the future, the valleys should remain intact, maintaining a key element of what makes Bhutan and Thimphu unique.* New development should shift elsewhere, potentially to Paro or other suitable areas.



Where to start?

Clearly the development pressures on Thimphu require quick action, and the demand for housing and facilities needs to be addressed. However, in absence of a well-thought out, coherent development approach, continued approval of development - or non-action by government resulting in *de facto* approval - is not helpful but can be destructive and give rise to false premises for future development. So how to move?

Areas need to be designated that provide an opportunity for immediate development.

These areas should be severely limited, and should already be provided with services to avoid any development costs to the city.

They would be adjacent to existing built-up areas of the city to take advantage of existing facilities.

Designating limited development areas offers two advantages:

- It provides an opportunity to meet the immediate demand for housing and does not stop development completely.
- It signals to developers areas that would allow development, and makes clear the areas that are 'off-limits' with strict enforcement. It removes ambiguity from investment decisions.

Essentially this is a holding action, buying time to decide which development strategy is best for the overall growth of Thimphu.



Tashi Delek!