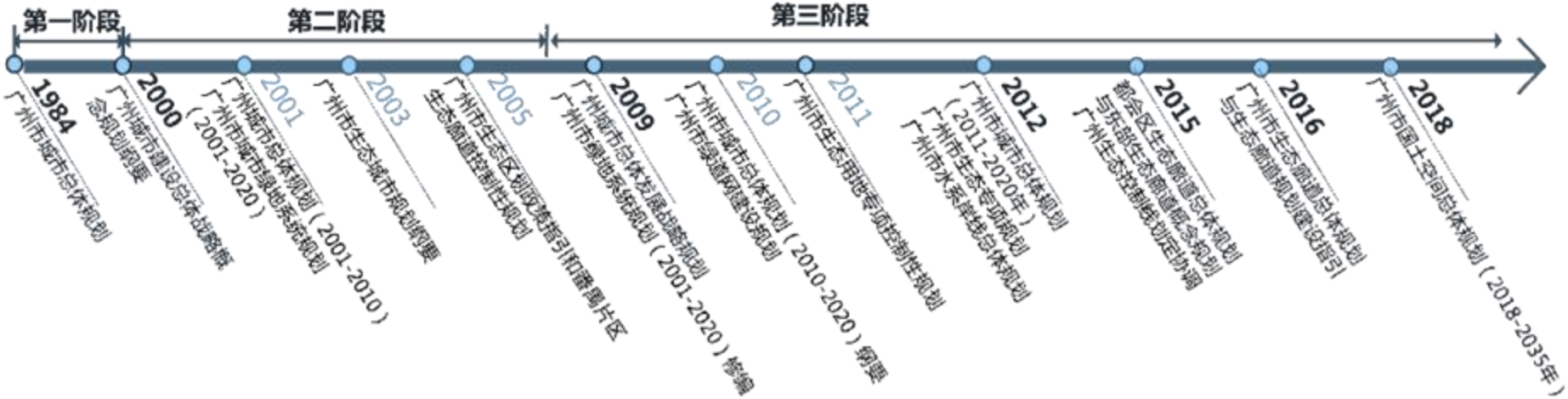
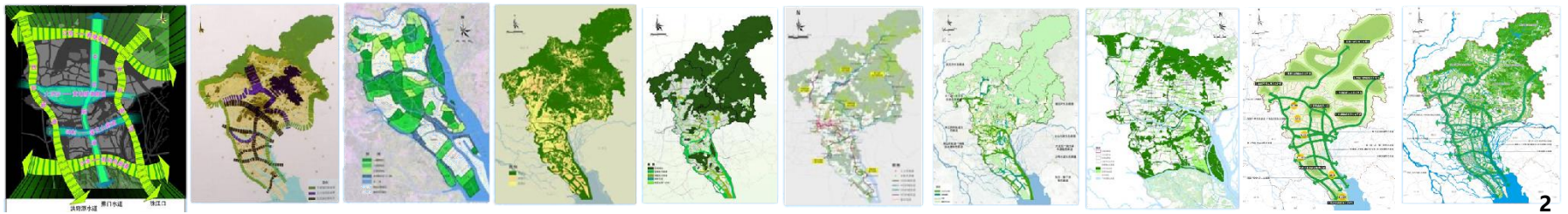
Green Infrastructure Practices of Guangzhou City and Panyu District

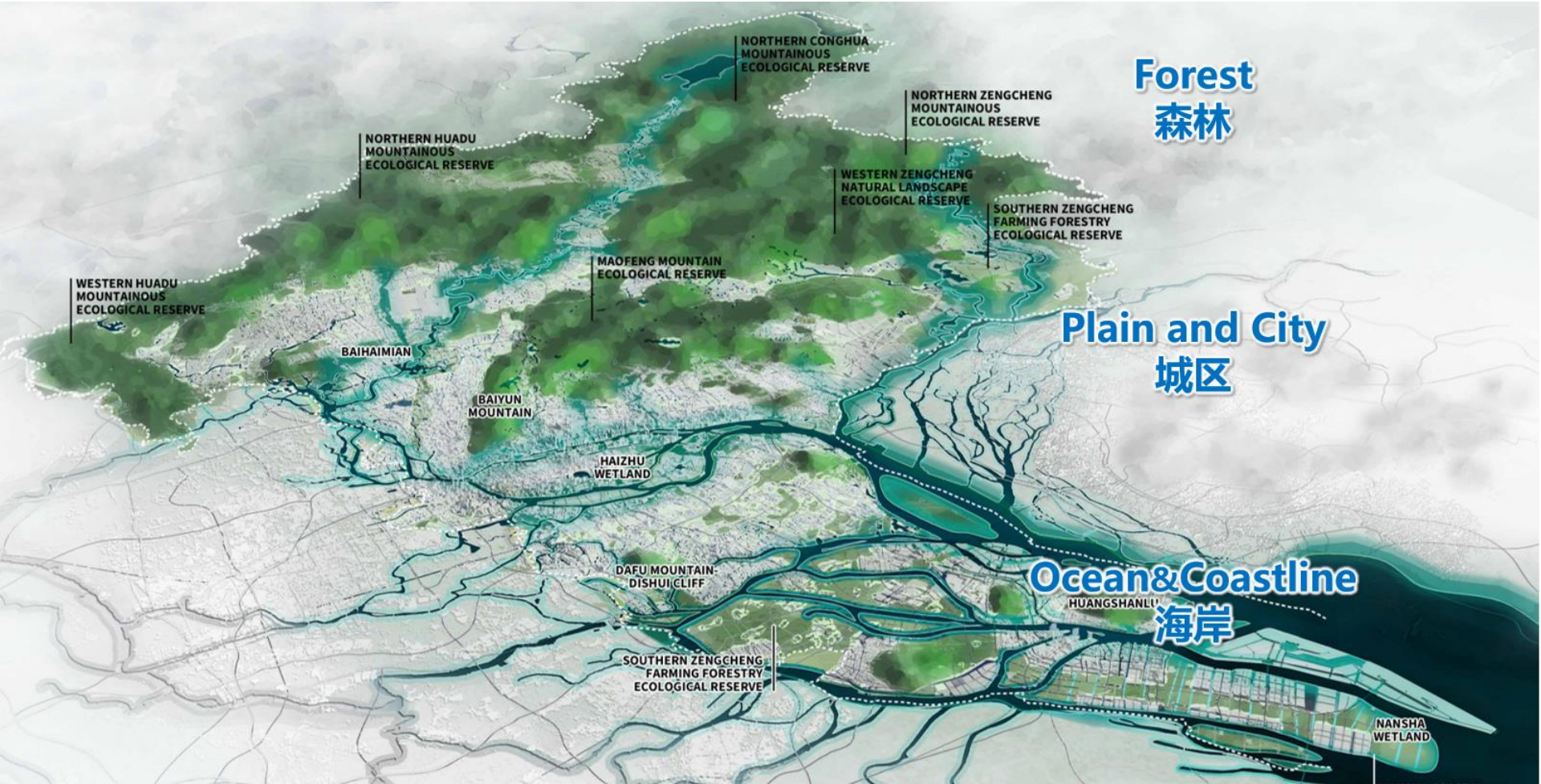
June, 2026

Eco-space Protection is a Long-term Work in Guangzhou



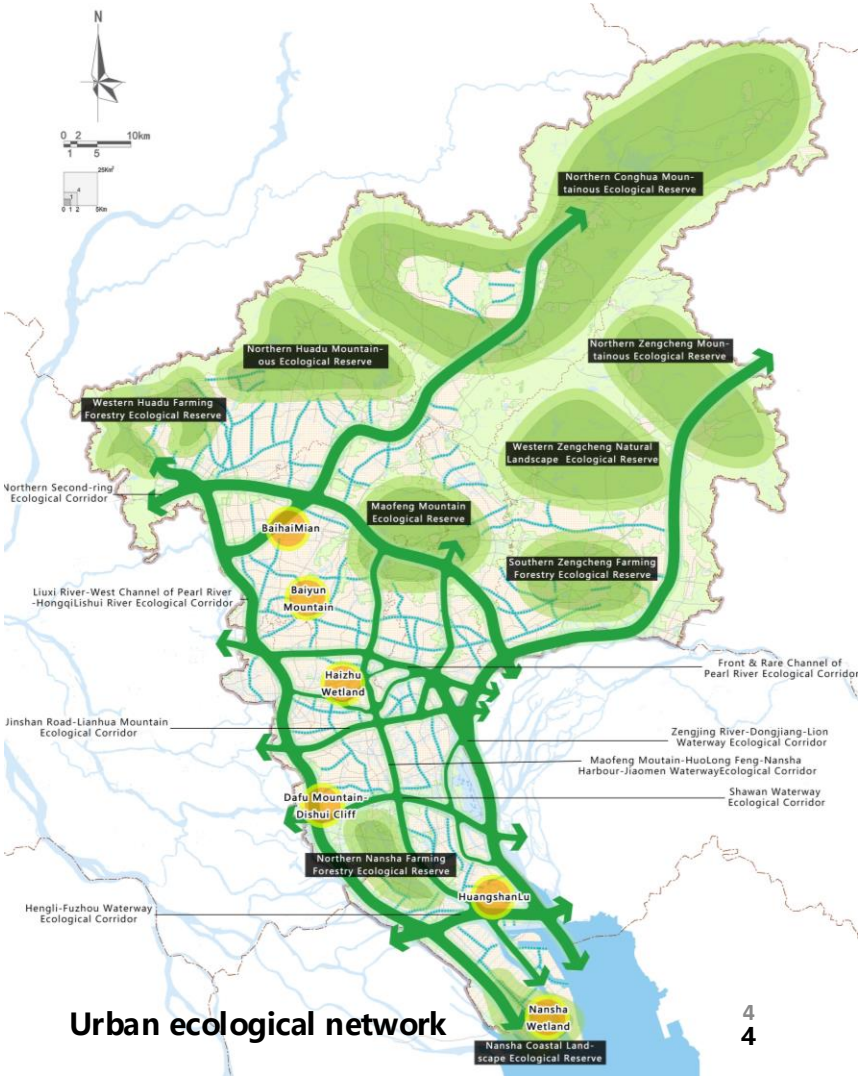


Guangzhou´s Natural Ecological Reserves



Ecological Network Connecting Mountains, Rivers, and Seas

- 9 important ecological areas
- 5000km ecological corridors
- 6 ecological green cores



Urban ecological network

4000km greenway system，connecting over 500 green parks


Forest Greenway


Lakeside Greenway


Reservoir Greenway

2000km waterways system, a variety of waterfront recreation spaces

Guangzhou Cong Hua Yadong river Greenway

Building a Park City Based on the South China Botanical Garden Park System.

- Building special plant display garden and ecological education spots.

Guangzhou Orchid Garden

Metasequoia forests

Huadu Lake Wetland

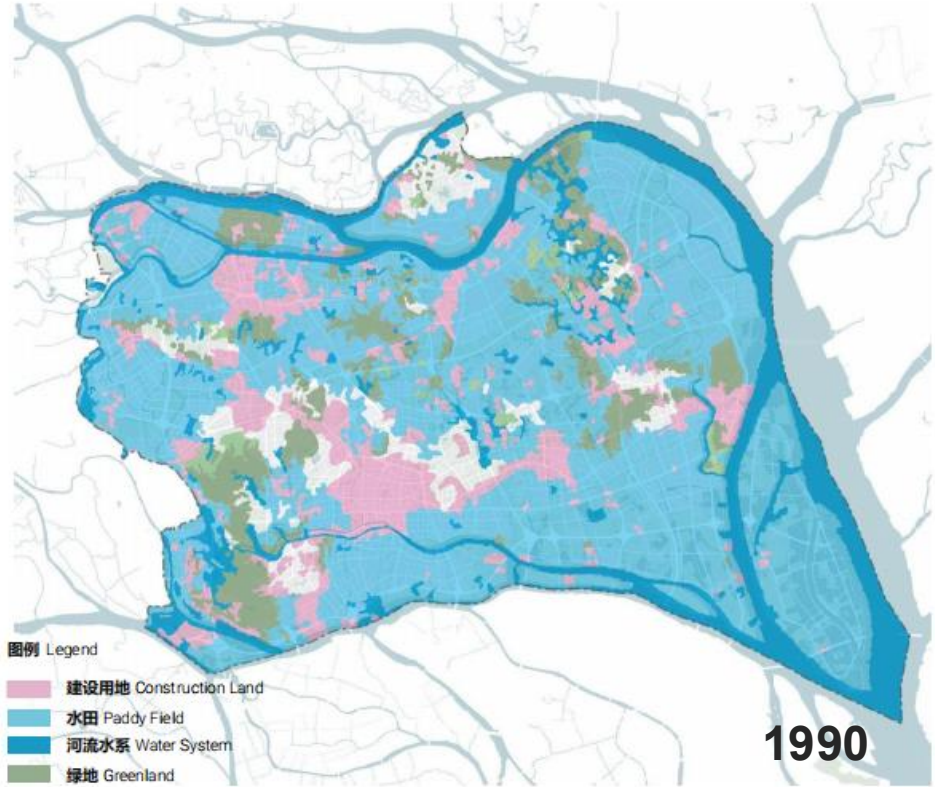
South China Botanical Garden Park

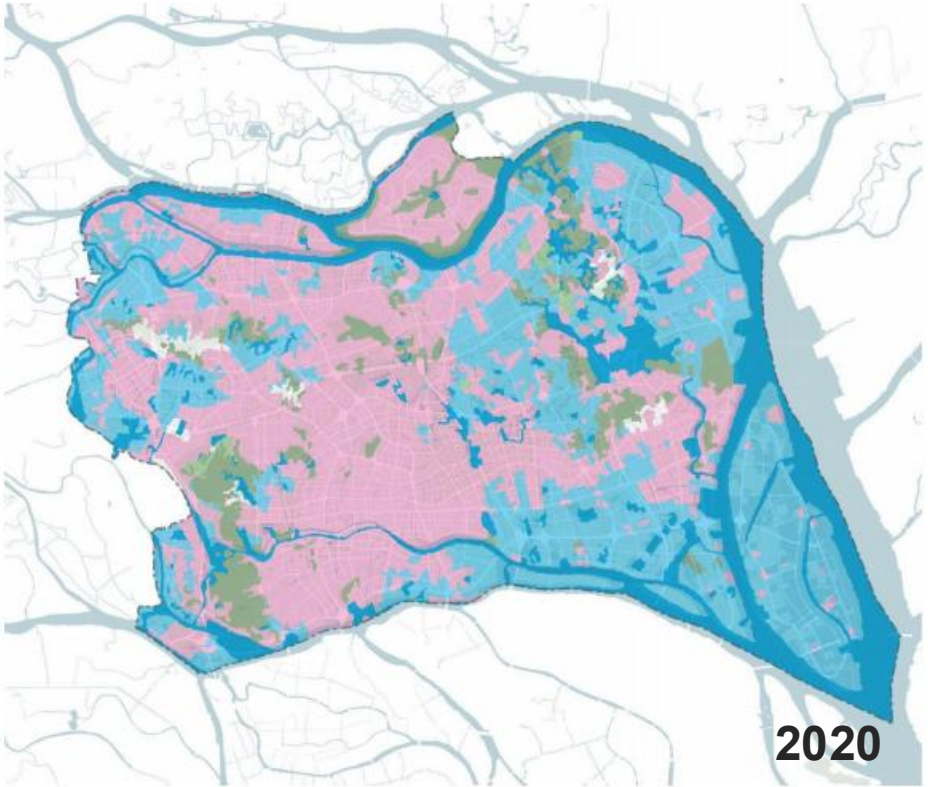
Haizhu Wetland: Build a Community Man and Nature coexist in harmony

Panyu:
Apply the concept of multi-function and green infrastructure
Public Participaiton-Analysis of 3 layer-Planing - Action & Key Project-Construciton

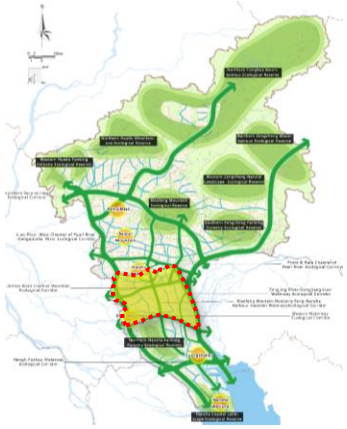
Green transformation of space under viaduct

Panyu District located in south central of Guangzhou
Rapidly developing area



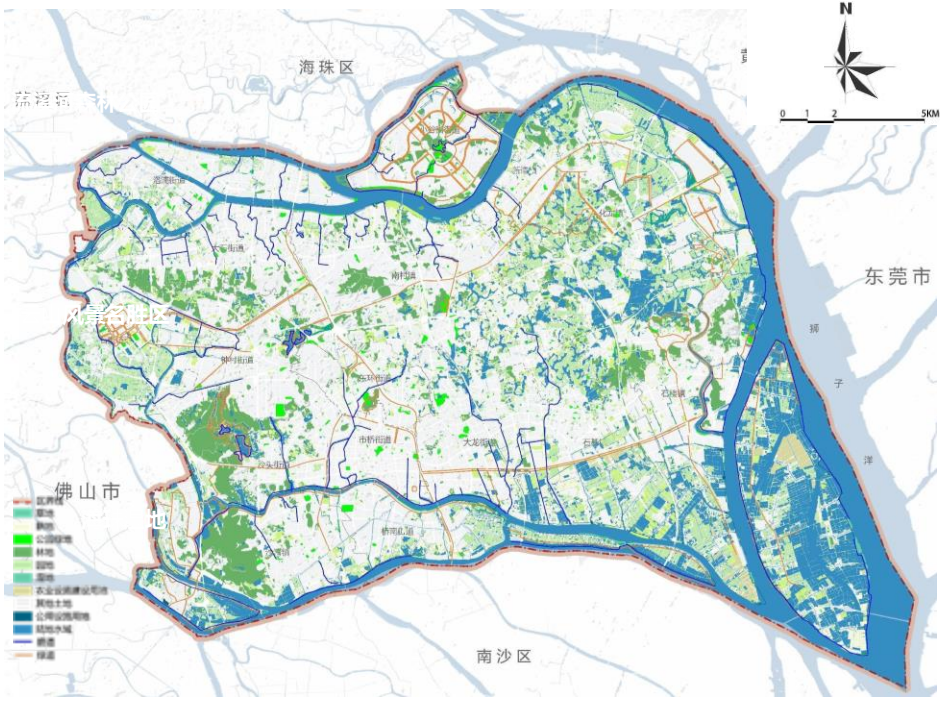


Panyu District located in south central of Guangzhou, the non-construction land reached about 50% of the region.



258km²
Agricultural land, unused land

257.8km²
construction land



Status of green infrastructure

Public Participation： 1469 valid questionnaires

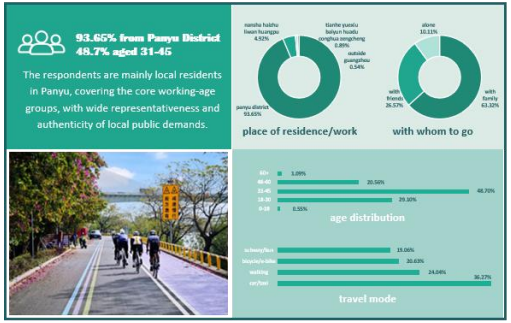
Questionnaire Survey & Field Interview

1469 valid questionnaires

264 hours of resident interviews

In the early stage of the project, we adopted a dual-channel public participation model of online push and offline face-to-face interview.

Profile of Interviewed Respondents



Core Public Preference & Demand

Leisure Space Preference

28.61%
Characteristic quiet countryside

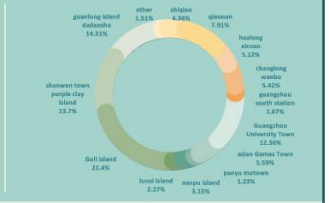
26.05%
Urban parks with complete facilities

24.19%
Open waterfront space

21.15%
Convenient community parks

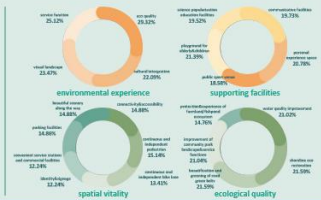
Public Perception of the Most Ecological Areas in Panyu

Island and waterfront areas overwhelmingly dominate the top positions, collectively accounting for over 60% of total responses. This clearly demonstrates residents' strong preference for intact natural ecosystems and less urbanized waterfront spaces.



Multi-dimensional Improvement Demands

The survey results reflect residents' high-quality demands for green infrastructure optimization and upgrading from four dimensions: **environmental experience**, **supporting facilities**, **spatial vitality**, and **ecological quality**.



Key Findings

Six "Mosts" of Panyu in Residents' Minds

Most Ecological Areas
Gull Island, Guanlong Island, Dadaosha, Shawan Zini Island, Guangzhou University Town

Most Popular Green Spaces
Dafu Mountain, Lianhua Mountain, Haiou Island, Dishuiyan Forest Park

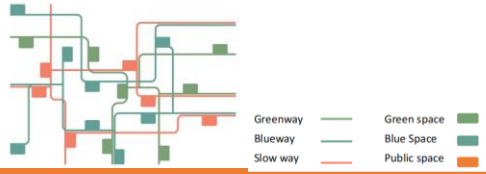
Most Popular Waterfront Spaces
Lianhua Mountain Waterway, Shawan Waterway, Pearl River Channel, Shiqiao Waterway

Most Desired Green Space
Good ecological environment, quiet and comfortable, complete facilities, open space, convenient parking

Most Needed Improvements
Community park landscape, road greening, water quality improvement, river shoreline restoration, farmland/fishpond ecological restoration

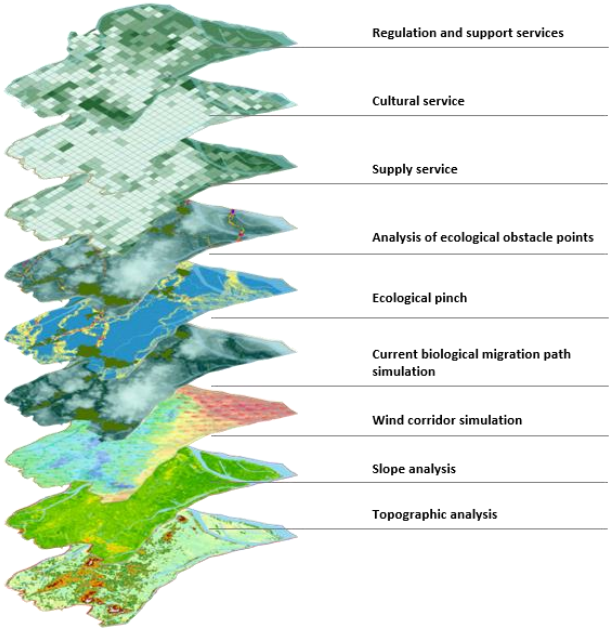
Most Needed Facilities
Elderly/children's playgrounds, open sports fields, science popularization facilities, communication venues, quiet areas

Analysis of Green, Blue and Orange Spaces



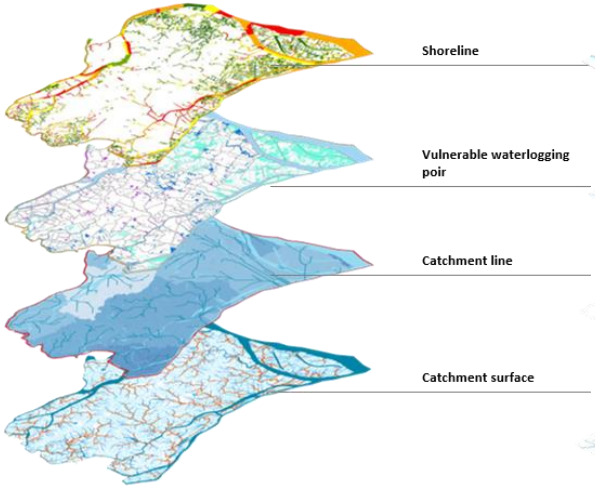
Green Network

Analyses of ecosystem services, ecological pinch points, baiological migration path simulation, and other related assessments.



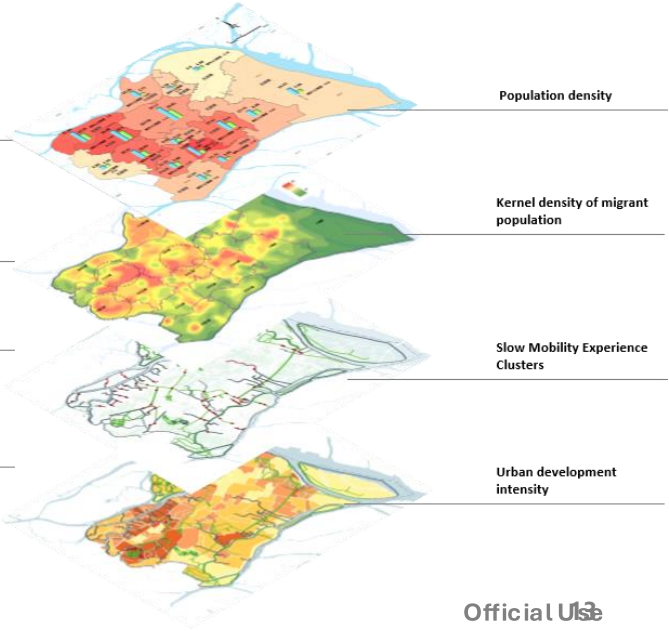
Blue Network

Analyses including shoreline conditions, flood-prone points, catchment lines and catchment surfaces.



Slow traffic Network

Vitality and heat analysis based on population density, slow travel experience clusters, and development intensity.

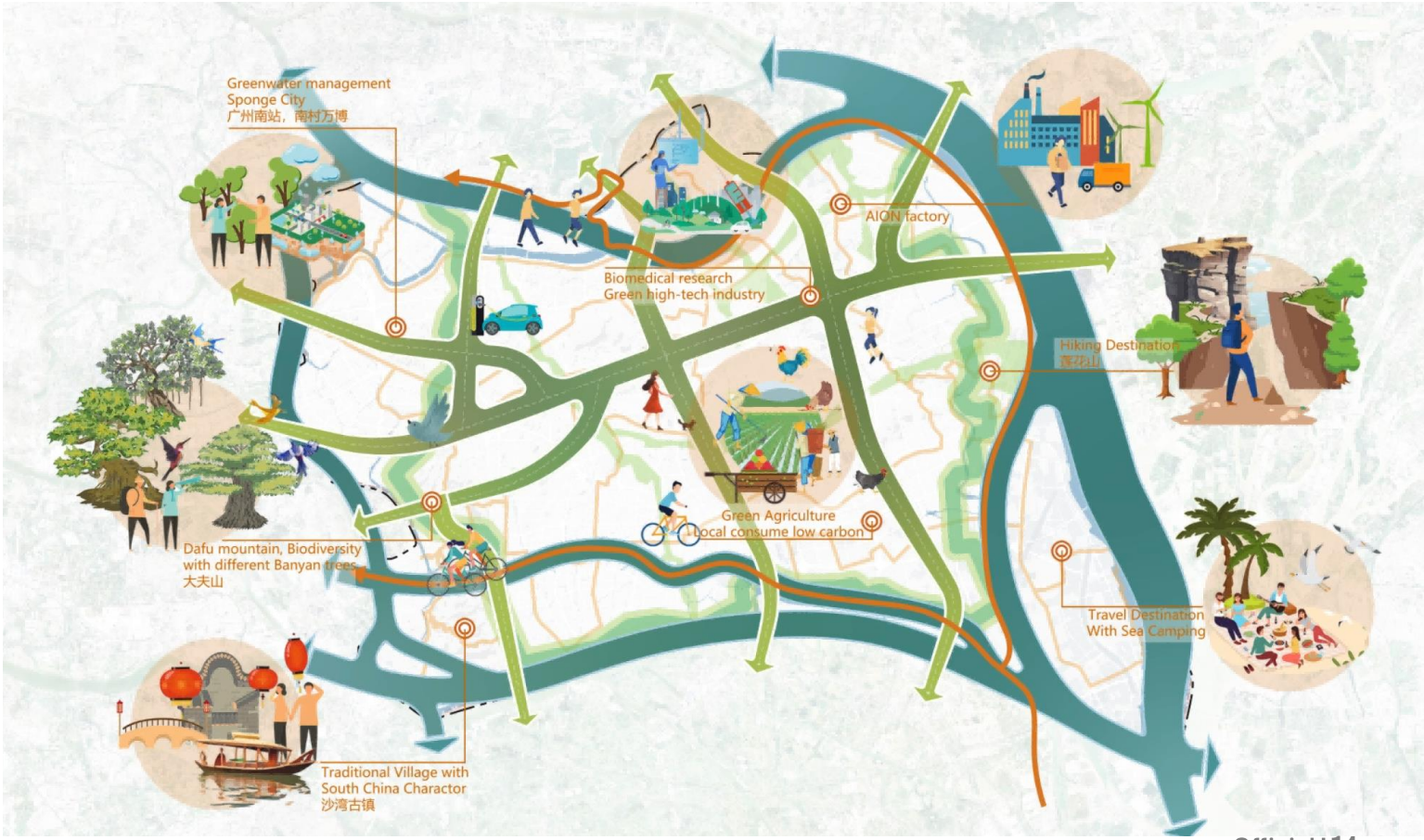


Planning and construction regional greenway & waterway system

222km²
Greenway

430km²
Waterway

connect
500+
Park & GreenSpace



Formulate 5 action plans and 24 key projects

Ecological Space Maintenance Action	Water Ecological Improvement Action	Rural Landscape Construction Action	Slow Moving System Construction Action	Green Open Space Construction Action
				
1 Construction of Ex-Situ Conservation Demonstration Area 1 Ecological Space Restoration 724.5 Mu Ecosystem Space Optimization 1 Construction of Forest Tourism and Forest Health Resort Base 2 Green and Beautiful Guangzhou Cultural Construction	2 Wetland Protection and Restoration Projects 1.3 Km River Channel Renovation and Upgrading Projects 1 Construction Project for The Startup Area of The Fishing Tort Economic Zone 21 Sponge Facility Construction Projects	10 Construction of New Rural Demonstration Belts 185.9 Km Guangzhou Qianli Rural Scenic Road (Panyu Section) 6600.38 Mu High-Standard Farmland Construction 13 Ha Construction of Agricultural Park 4 Organic agricultural Agricultural Product Demonstration Bases	15 Km Improvement Project of Service Facilities in Protected Areas 200 Mu+43 Km Enhancing and Beautifying the Green Corridor 21 Km Greenway Construction Projects 4 Km Waterfront Greenway Construction Projects 305 Km Other Slow-Moving Road Construction Projects	Urban Park Green Space Planning and Construction Project (Adding 5 Pocket Parks and 2 Community Parks) 3 Ancient and Famous Trees Protection and Restoration Projects

Challenge: How to turn blueprints into implementation?

How to achieve sustainable operation and relieve construction funding pressure?

如何实现可持续运营，缓解建设资金压力?

How to coordinate demands of government, enterprises, tourists and locals in implementation?

项目落地过程中，如何统筹政府、企业、游客与当地居民的诉求?

How to balance space needs for ecology protection, farm production and leisure traffic networks.

如何平衡生态保护、农业生产、休闲交通体系的空间需求?

Guangzhou Practice of GI Implementation Path

2 Path for different projects

Path1:Public-benefit projects
普惠性项目

Small scale
public welfare priority
low profitability
规模较小、公益性强 、盈利困难

Government-funded with only partial commercial operation
政府投资、局部运营

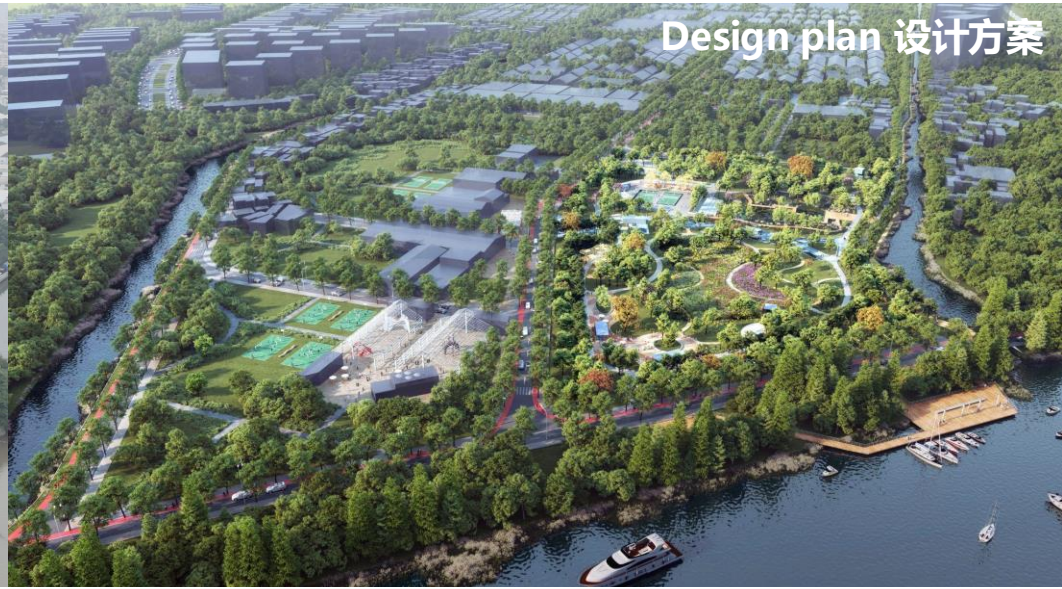
Path2:Sustainable operation projects
可持续运营项目

Large scale,
Diverse revenues
Marginal profit balance
规模较大、收益多样、微利平衡

Project integration & private investment
项目整合、社会投资

Path1:Public-benefit projects： Park and Green way

Government-funded: For public facilities like parks and greenways, provide free accessible linear recreational routes for citizens.
Social participation:Paid service stations are built in selected areas.



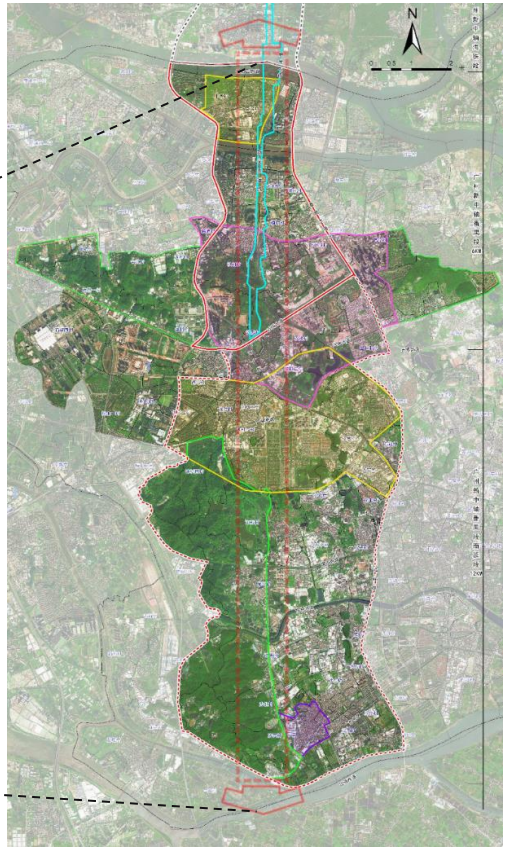
Eco-Park in Panyu 陈村涌体育生态公园

Path1:Public-benefit projects： Park and Green way

Completed

Path2:Sustainable operation projects

Location: The project is located in the southwestern part of Panyu District, including three mountain areas, as well as the surrounding urban and rural areas.



Path2:Sustainable operation projects

Financing: Green Infrastructure (GI) in Natural Areas

Nature-based Solution

From Urban Environmental Engineering Management to Nature-Based Solutions

Five Major Dimensions :

Green and Low-Carbon, Beautiful Environment, Ecologically Livable, Safe and Healthy, and Smart and Efficient

Regional Balance

Explore the packaging of GI projects from the perspective of eco-integrity.

Project Features:

By implementing GI, enhancing the quality of the ecological environment and green development

Green Development

Leveraging Investment and Green Transformation

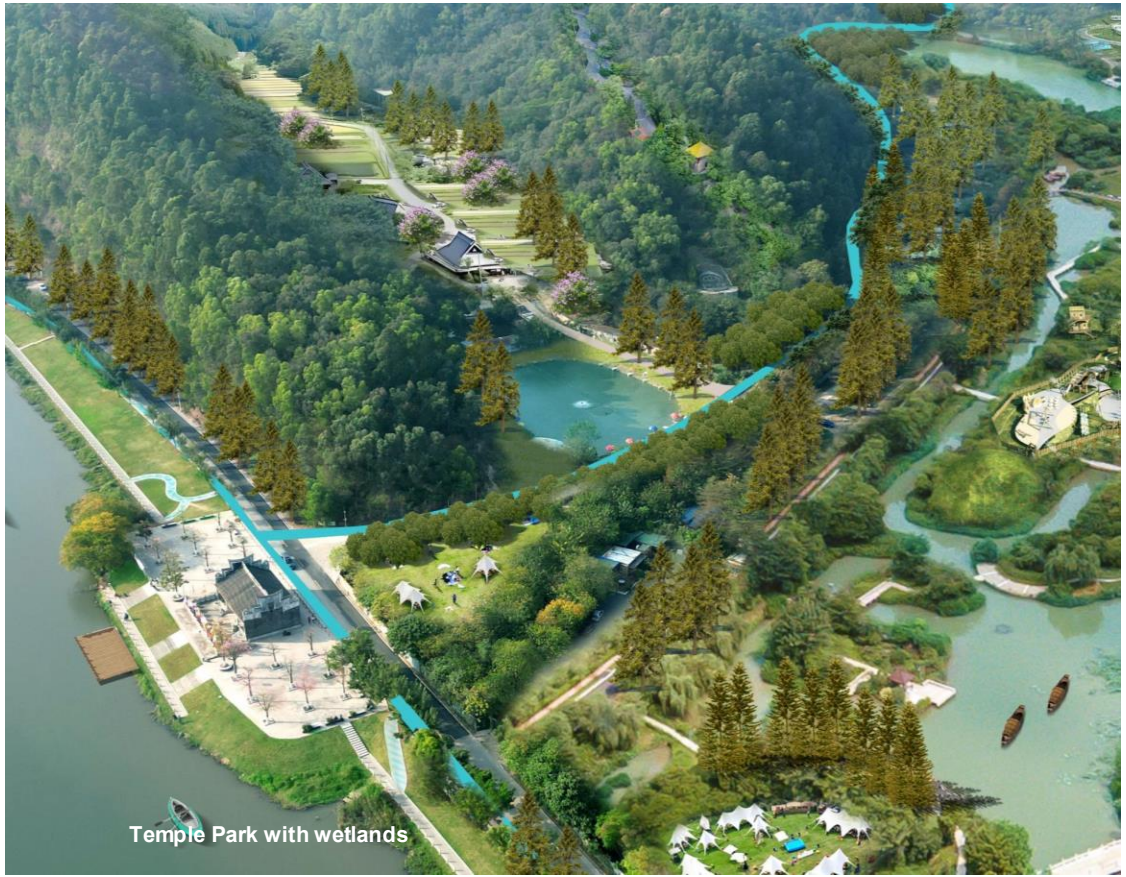
Financing Balance:

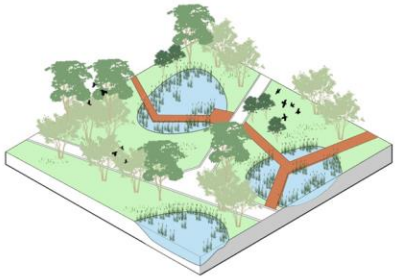
The government guides market entities in securing financing and loans to ensure financial balance and sustainable operations.

GI：Linking Ecological Disconnections by Infrastructure

By corridor bridges, break through the ecological disconnections in the Dafushan-Manggang-Dishuiyan area, and enhance the biodiversity of the entire ecosystem in the region.

Integrating Sponge Systems, Small Wetlands, and New Recreational Formats to Enhance the Ecological Value of Node Areas





Typologies: Wetlands with dike

Typologies: Wetlands with lake

Mountain Eco-Restoration Integrated with the Development of Surrounding Neighborhoods

Breaking the dilemma of **separation of mountains and neighborhoods**

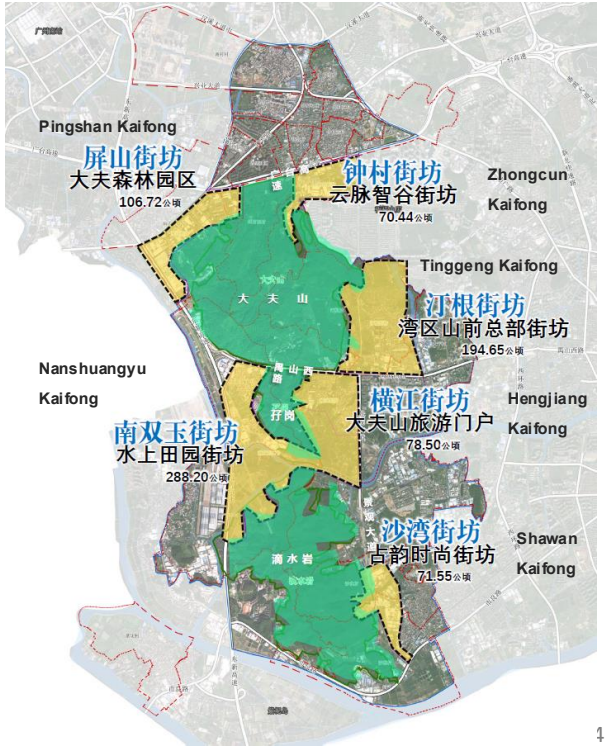
Plan 6 themes of **neighborhoods integrated with the forest parks and mountains**, with multi-functions and **benefits the citizens in ecological way**.

#	Name of Neighborhoods	Development Theme	Area（Ha）
1	Pingshan	Dafu forest parkland	106.72
2	Zhongcun	Smart-Tech	70.44
3	Tinggeng	Headquarters	194.65
4	Hengjiang	Tourism	78.5
5	Nanshuangyu	Water farmland	288.2
6	Shawan	History and fashion	71.55

Hengjiang Kaifong

Tinggeng Kaifong

Zhongcun



Pingshan Kaifong

Nanshuangyu Kaifong

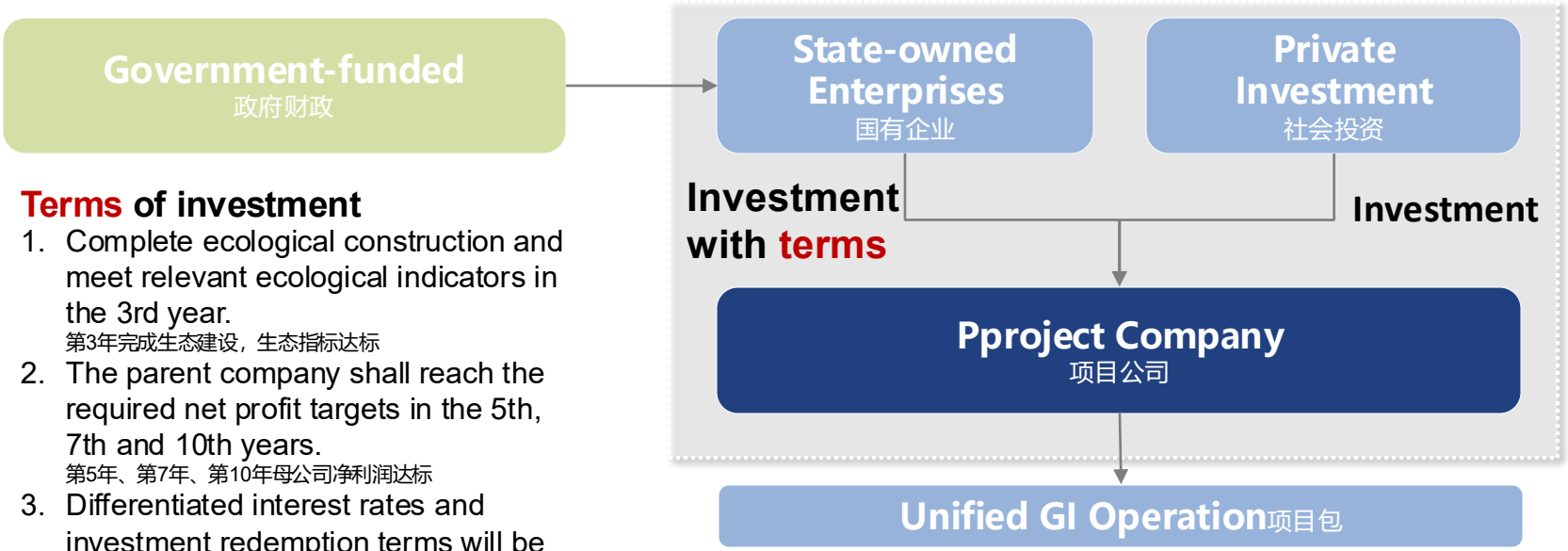
Shawan Kaifong

GI Financing Path1:Equity approach-Capital injection

绿基融资路径1：权益路径-资本金注入

To reduce the capital cost of private investment, we adopt a conditional admission mechanism for equity capital. It guarantees investment goes into green infrastructure with low repayment risks.

为降低社会资本资金成本，探索带条件的资本金准入方式，确保投资实现绿色基础设施建设，投资还款风险低



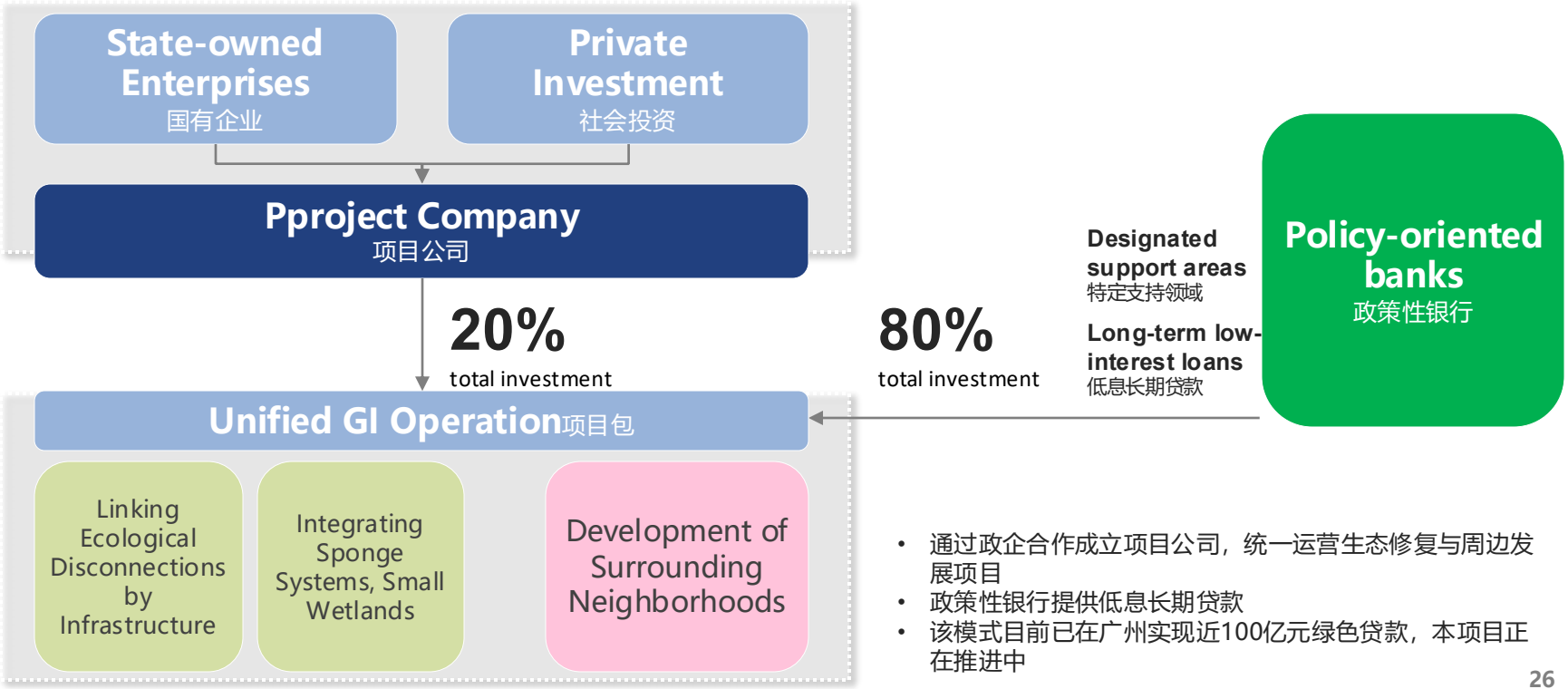
Terms of investment

1. Complete ecological construction and meet relevant ecological indicators in the 3rd year.
   第3年完成生态建设，生态指标达标
2. The parent company shall reach the required net profit targets in the 5th, 7th and 10th years.
   第5年、第7年、第10年母公司净利润达标
3. Differentiated interest rates and investment redemption terms will be applied based on actual performance.
   按照不同完成情况，设定差异化利率及投资赎回方式

GI Financing Path2:Debt approach: Policy finance tools

绿基融资路径2：债务路径-政策性金融工具

A project company is set up to take charge of the unified operation.
Policy banks offer long-term loans at low interest rates.Nearly 10 billion yuan in green loans disbursed.



- 通过政企合作成立项目公司，统一运营生态修复与周边发展项目
- 政策性银行提供低息长期贷款
- 该模式目前已在广州实现近100亿元绿色贷款，本项目正在推进中

Thank You!