

## **Exploration of Zero-waste City Construction in China**

Teng Jingjie
Solid Waste and Chemicals Management Center,
Ministry of Ecology and Environment, P.R. China

Feburary 9, 2023



#### **Contents**

1

**Achievements of Pilot Program** 

2

Work Plan during the 14th Five Year Plan Period



### What is a "zero-waste city"?

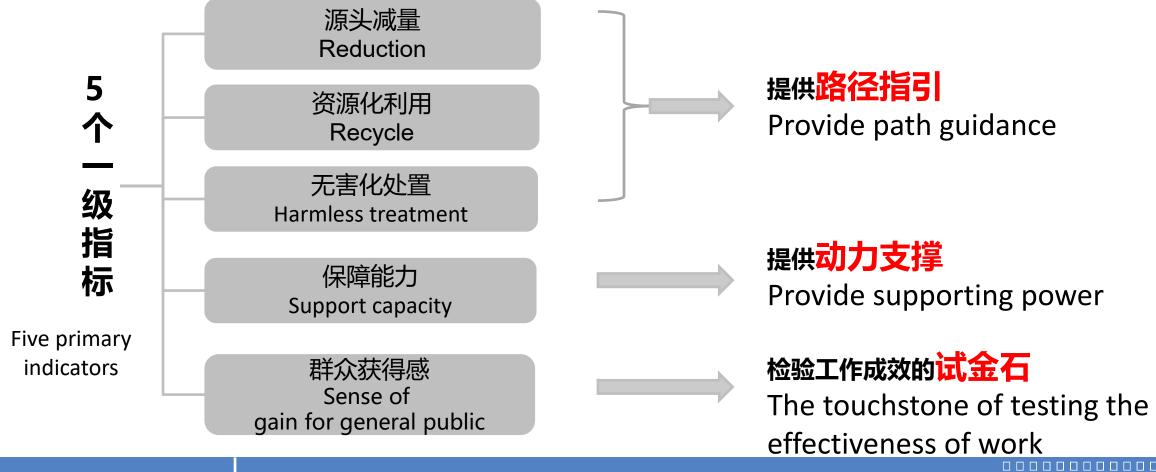
Zero-waste City refers to an urban development model that <u>aims at reducing generation</u>, promoting utilization of solid waste, reducing landfill and <u>minimizing</u> the environmental impact of solid waste by promoting green development and green lifestyles.



- The amount of solid waste is zero.
- Solid waste is fully utilized.



## Index System of Zero-waste City Construction



Solid Waste and Chemicals Management Center, Ministry of Ecology and Environmental



By the end of 2021



制度、技术、市场、监管体系建设任务完成情况 Completion of Institutional, technology, market and supervision system construction

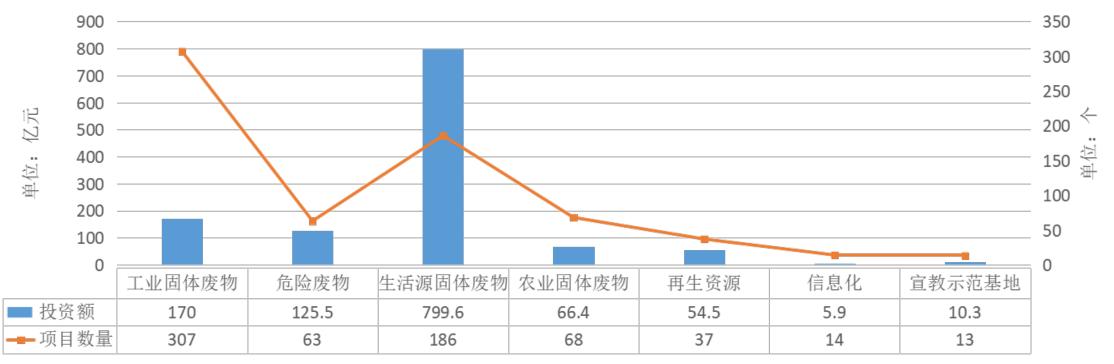


固体废物利用处置工程项目完成情况 Completion of solid waste utilization and disposal project



#### 各类固体废物利用处置工程项目投资分布情况

Investment distribution of various solid waste utilization and disposal projects



■ 投资额 - 项目数量



#### 徐州市通过建设循环经济产业园,实现不同类型固体废物协同共治。

Through the construction of circular economy industrial park, Xuzhou City has realized the coordinated treatment of different types of solid waste

- 产业园总投资约60亿元,规划建设生活垃圾焚烧发电、餐厨垃圾处理、污水处理、危险废物处置、饱和废活性炭再生利用、建筑垃圾处置等11个环保项目。
- 获得国家开发银行贷款授信约45.5亿元。



徐州循环经济产业园



#### 深圳市建成盐田等5个能源生态园,实现趋零填埋,化"邻避"为"邻利"。

Shenzhen City have built Yantian and other five energy ecological parks, turning "Not in my backyard" into "benefit by my backyard"

- 模式创新: 企业社区共建模式
- 解决问题: 土地资源紧缺、邻避问题突出, 垃圾处理等环保 设施规划建设落地难
- 设施建设:环境友好型星级酒店景观设计,建设登山道、游泳馆和科普教育基地和体验馆
- 排放标准: 执行全球最严烟气排放标准



深圳盐田能源生态园



Formed a number of replicable and popularizable demonstration models

97 reform measures, experience and practices, including

- •工业固体废物贮存处置趋零增长 Promote zero growth in the storage and disposal of industrial solid waste
- •农业废弃物全量利用

Full recycle of major agricultural wastes

•建筑垃圾源头减量和资源化利用

Construction waste reduction and recycle

- •生活垃圾分类和资源化利用
- Domestic waste sorting and recycle

•危险废物安全管控

The comprehensive safety management of hazardous wastes

- •信息化管理
- Information management
- •市场培育
- Market cultivating
- •无废文化
- Zero-waste culture





Cultivate a batch of Zero-waste Cells

#### 试点城市培育各类"无废细胞"7200余个。

More than 7,200 Zero-waste Cells of various types were cultivated in the pilot cities

 Improve the awareness and public participation of Zero-waste City and create a good social atmosphere.

#### 雄安新区率先编制"无废城市"教材。

Xiongan New Area was the first to compile Zero-waste City textbooks

 Incorporated into the 15 year education system and implanted Zerowaste Gene







#### **Contents**

1

Achievements of Pilot Program

2

Work Plan during the 14th Five Year Plan Period



#### "十四五"时期"无废城市"建设工作方案 Work Plan for the construction of Zero-waste City during the 14th five-year Period

#### **Summarized as 12345**

- 1 means 100 cities
- 2 means to integrate with the work of deepening the battle of pollution prevention and control and carbon peak and carbon neutralization
- 3 means reduction, recycle and harmless treatment
- 4 means Institutional, technology, market and supervision system construction
- 5 means Industrial, agricultural, domestic, construction and hazardous waste fields





## **Objective** of Zero-waste City construction during the 14th Five Year Plan Period

By 2025,

- ●固体废物产生强度较快下降
  The intensity of solid waste production decreased rapidly
- ●综合利用水平和比例大幅提升
  The level and proportion of comprehensive utilization have been greatly improved
- ●区域处置设施缺口基本补齐
  The gap in regional disposal facilities has been basically filled

- ●减污降碳协同增效作用明显 Obvious synergistic effect of reducing pollution and carbon
- ●基本实现固体废物管理信息 "一张网" Basically realize the One Network of solid waste management information
- "无废" 理念得到广泛认同 The concept of Zero-waste is widely recognized
- ●固体废物治理体系和治理能力得到明显提升
  The solid waste treatment system and capacity have been significantly improved



## Main tasks of Zero-waste City construction during the 14th Five Year Plan Period

#### 口五大类固废协同治理

ive categories of solid waste collaborative treatment

- •强化监管和利用处置能力,切实防控危险废物环境风险
- •Strengthen supervision, utilization and disposal capacity, and effectively prevent and control environmental risks of hazardous wastes
- •加强全过程管理,推进建筑垃圾综合利用
- •Strengthen the whole process management and promote the comprehensive utilization of construction waste

the pressure of industrial disposal

- 五大类固废 加同治理
- 建筑垃圾 Construction

生活垃圾 Domestic garbage

- •加快工业绿色低碳发展,降低工业固体 废物处置压力
- •Accelerate the green and low-carbon development of industry and reduce the pressure of industrial solid waste disposal
  - •促进农业农村绿色低碳发展,提升主要农业固体废物综合利用水平
  - •Promote the green and low-carbon development of agriculture and rural areas, and improve the comprehensive utilization level of major agricultural solid wastes
  - •推动形成绿色生活方式,促进生活源固体废物减量化、资源化
  - •Promote the formation of a green lifestyle and promote the reduction and recycling of solid waste from domestic sources

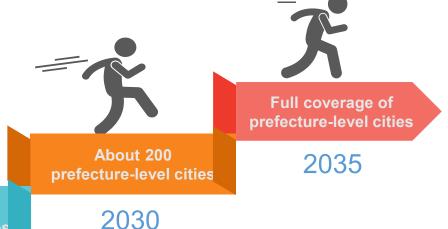


## The construction of "zero-waste cities" is a long-term process which requires arduous efforts

- ◆ Ideological understanding
- ◆ How to get the support of the main person in charge of the government
- ◆ Foundation and joint efforts of work
- ◆ Use and financing of funds
- Institutional innovation

"11+5" pilot cities

About 100 prefecture-level cities 2025



**Beautiful China** 

2020



# Thank you!

#### **Contact Info:**

- Email: <u>tengjingjie@meescc.cn</u>
- <a href="http://www.meescc.cn/">http://www.meescc.cn/</a>
- Tel:86-10-84665947