

2004年
上海资源环境蓝皮书

主编 尹继佐

建设循环经济型 的国际大都市

An Environment and Resources Bluebook of Shanghai, 2004
Building Shanghai into a Circular Economic Type World City
上海社会科学院出版社

中国城市

上海、北京、天津、广州、深圳、香港

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CONTENTS

Introduction: Building Shanghai into a Circular Economic Type World City (1)

Circular economy is the new economy in 21st century and Shanghai should show more concern to it as Shanghai is constructing a competitive world city. This summary emphasizes that the circular economy is a new economic development model which would raise productivity of natural capital, compared with the traditional economic development model which is characteristic of materialization. The authors review the challenges, strategic goal, key action fields and institutional building. It is expected that the birth of a new developing way of modernization in Shanghai, which is typical of the harmony among development, wealth and environment.

Part One: Strategic Thinking about Building Shanghai into a Circular Economy Type City

Background and Suggestions about How to Develop Circular Economy in Shanghai (19)

To achieve the grand developmental goal of Shanghai in the new century, Circular Economy plays significant role in guaranteeing its implement. While the investigation on the *status quo* of circular economy at home and overseas is conducted, this article focuses on the policies and suggestions about how to develop the circular economy in Shanghai and takes into consideration such aspects as the propaganda of the idea and the institutional framework to promotion of CE.

Strategic Thinking for Shanghai to Develop Circular Economy (44)

For Shanghai to become a sustainable society, it would be necessary and helpful to change the traditional linear and throwaway economy into a closed substance economy. This paper introduces the economic-social background of this new kind of economy and its basic contents, and suggests that more attention should paid to this new issues in Shanghai's implementing the strategy of sustainable development.

Economic Analysis for Building Shanghai into a Circular-economic Type City (62)

In a market economy, the basis for circular economy is that the value chain is not break. It means every trade link through which the material flow passed must have normal profit. When a link could not generate the profit, the value chain would be break down. Two conditions for maintaining the value chain discussed in the article. One is a good institution system, so that the externalities can be realized in market. The other is reconstruction of the industries for upgrading the recycling.

Guarantees in Law for Shanghai to Build into a Circular Economic City (91)

To build Shanghai into a circular economy city will be conducive to the promotion of the circular economy in the whole country. This initiative is also an opportunity to improve environmental law. To guarantee Shanghai into a circular economy city in law, we should develop and improve the environment law by the way of changing guiding thoughts, expanding the regulating mechanism, reforming the principle and making the legal system perfect etc.

Three Year Action Plan for Environmental Construction and Circular Economic City (121)

According to the requirements of a circular economic city, the paper reviews the progress of the first year action plan for environmental construction in Shanghai, and gives an introduction to the second action plan of this kind. Further suggestions about circular economic city is made.

Part Two: Key Industrial Fields for Shanghai to Develop a Circular Economy Type City

Developing Shanghai's Industries Ecologically (149)

Under current condition of domestic and international situation, it is not only essential but also pressing for Shanghai to develop its industries ecologically in order to achieve its international city development goal. In this chapter, we study both the base condition in Shanghai and the problem that should be solved to develop its industries ecologically. And then we make some policy suggestions for the solution.

Industrial Ecology and Eco-Industrial Parks (EIPs) Construction in Shanghai (176)

Ecological industrial park (EIP) construction is an important approach to practice circular economy concept. Principles of industrial ecology, the concept, characters, design principles and cases in abroad and home of EIP are introduced. It analyses the present situations, obstacles of EIP construction in Shanghai. The countermeasures for EIPs construction in Shanghai are proposed.

Ecologicalization of City's Traffic(ECT) in Shanghai (199)

In order to achieve sustainable development and realize a circular economy city, traffic is a key question to be solved in Shanghai. The paper narrates the development of

city's traffic in Shanghai, introduces EST's achievement in Shanghai, and expounds advices and measures for ECT in Shanghai.

**Reuse and Recycle of Natural Resources and
Manufactured Goods in Shanghai (221)**

For requirement in construct and development of an international garden metropolis of Shanghai, the strategy and objects have been proposed. The paper reviews the current situation about natural resource's reuses and recycles. It proposes the establishment of technical flat which means a series of general techniques for sources reuses and recycles, and to upgrade technical level and sustainable creative ability for resource's reuses and recycles.

**Part Three: The Rural Areas' Ecological Service
and Circular Economy in Shanghai**

**The Eco-Type Development in the Suburbs of Shanghai
..... (245)**

Significance of eco-type development in the suburbs of Shanghai is discussed. Approach and target of eco-type development in the suburbs of Shanghai is set up. Current situation and existing problems of eco-type development in the suburbs of Shanghai are reviewed. Countermeasures for the suburbs of Shanghai to enhance eco-type development are raised.

Shanghai's Rural Areas and Their Ecological Service

..... (274)

A perfect circular economy could fully make use of the service from the ecological system based on preservation. To Shanghai, its most precious source of ecological service comes from its rural areas. The farmland and the hydrographic net form a complete material circulation, and give ecological service to the city in different ways. This article discusses disadvantage changes of urbanization and proposes some suggestions of correcting these changes.

Using the Circular Economy Concept in Shanghai's Ecological Construction (309)

Circular economy, the economic pattern summarized from ecosystem, is the key to reduce urban ecological footprint. We suggest to direct ecological construction in Shanghai with ecological-economic strategy. It is very important to construct low input, low maintenance, high ecological adaptations and sustainable development urban environment, with the recycling economy concept in the urban ecological construction.

Build an Ecological Demonstrated District (EDD) on the East Wetlands of Chongming Island (338)

Based on the analyses and assessments of current status and ecological service of the wetlands on East end of Chongming Island, an idea is put forward to reconstruct and adjust the structure of the ecosystem, to restore the service

of the ecosystem, to raise and increase the value of the nature capital, and to build an Ecological Demonstrated District (EDD). The ecological, economical and social benefits of the EDD are analyzed. Some suggestions are recommended also.

Postscript	(360)
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概述:建设循环经济型的 国际大都市

诸大建

循环经济是国际上近年来深化可持续发展的重要进展,这个概念传入中国以来得到了决策层和学术界的重视。2002年,江泽民同志曾在全球环境基金成员国会议上代表我国发表了关于“只有走以最有效利用资源和保护环境为基础的循环经济之路,可持续发展才能得以实现”的重要讲话。上海是国内最早关注、研究和实施循环经济的,有关的概念已经纳入了《中国21世纪议程——上海行动计划》和上海市国民经济和社会发展第十个五年计划,并于2000年出版了研究成果《上海发展循环经济研究》。本蓝皮书的研究反映了上海近年来在这方面的一些实践探索、政策研究和理论思考。本篇概述讨论了我们对于上海为什么以及怎么样建设循环经济型城市的一些基本看法。

一、提高竞争力要求减轻上海城市经济发展的“重量”

进入21世纪,上海提出了建设成为世界级城市的战略目标。我们曾经指出,从当代世界城市的研究进展来看,上海建设世界级城市的努力需要考虑三个维度的发展^①:一是在经济发展方面,要

^① 见诸大建,努力实现环境可持续发展的现代化,《2003年上海资源环境蓝皮书》,上海社会科学院出版社,2002年,1~22页。

努力建设成为在全球经济网络中具有重要影响作用的枢纽型城市；二是在社会发展方面,要努力建设成为具有高人类发展指数的适宜人居住的城市；三是在资源环境方面,要努力建设成为具有减物质化发展特征的循环经济型城市。提出要把上海建设成为具有减物质化(dematerialization)特征的循环经济型国际大都市,是从资源环境方面把上海未来的经济增长与世界的经济发展趋势进行比较研究的结果。这个问题的实质是,上海大都市的发展在努力使得 GDP 超常规地变大的同时,也要花大力气让其大幅度地“变轻”。

GDP 变大,就是 GDP 的总量规模和人均水平要增大,这方面已经在上海建设世界级城市的目标中有足够强调;GDP“变轻”,就是与 GDP 增长相关的物质消耗总量、人均物质消耗或单位 GDP 的物质强度要变小,这方面在上海建设世界级城市的目标中还没有得到充分注意。GDP 变轻可以从两个方面进行衡量,一是从经济活动输入端的物质消耗水平来衡量,即经济规模增加的同时,要让以总量计、人均计或强度计的水资源消耗、能源消耗、土地消耗、材料消耗等大幅度降下来;二是从经济活动输出端的污染排放情况来衡量,即经济规模增长的同时,要让以总量计、人均计或强度计的废水排放、废气排放、垃圾排放等能大幅度降下来(表 1)。

表 1 衡量经济发展的资源消耗和污染排放指标

	总量指标	人均指标	强度指标
输入端的资源消耗指标	水资源消耗 能源消耗 土地消耗 材料消耗等	人均用水 人均能耗 人均占用土地等	能耗/单位 GDP 水耗/单位 GDP 土地占用/单位 GDP 物质重量/单位 GDP 等
输出端的污染排放指标	垃圾排放 废水排放 废气排放等	人均垃圾产生量 人均废水排放量 人均废气排放量	垃圾产生/单位 GDP 废水排放/单位 GDP 废气排放/单位 GDP 等

传统的经济竞争力概念,单向度地强调 GDP 的变大,对 GDP