

Policy Analysis of the Application and Promotion of EcoSan (Source Separation) System in Urban Areas

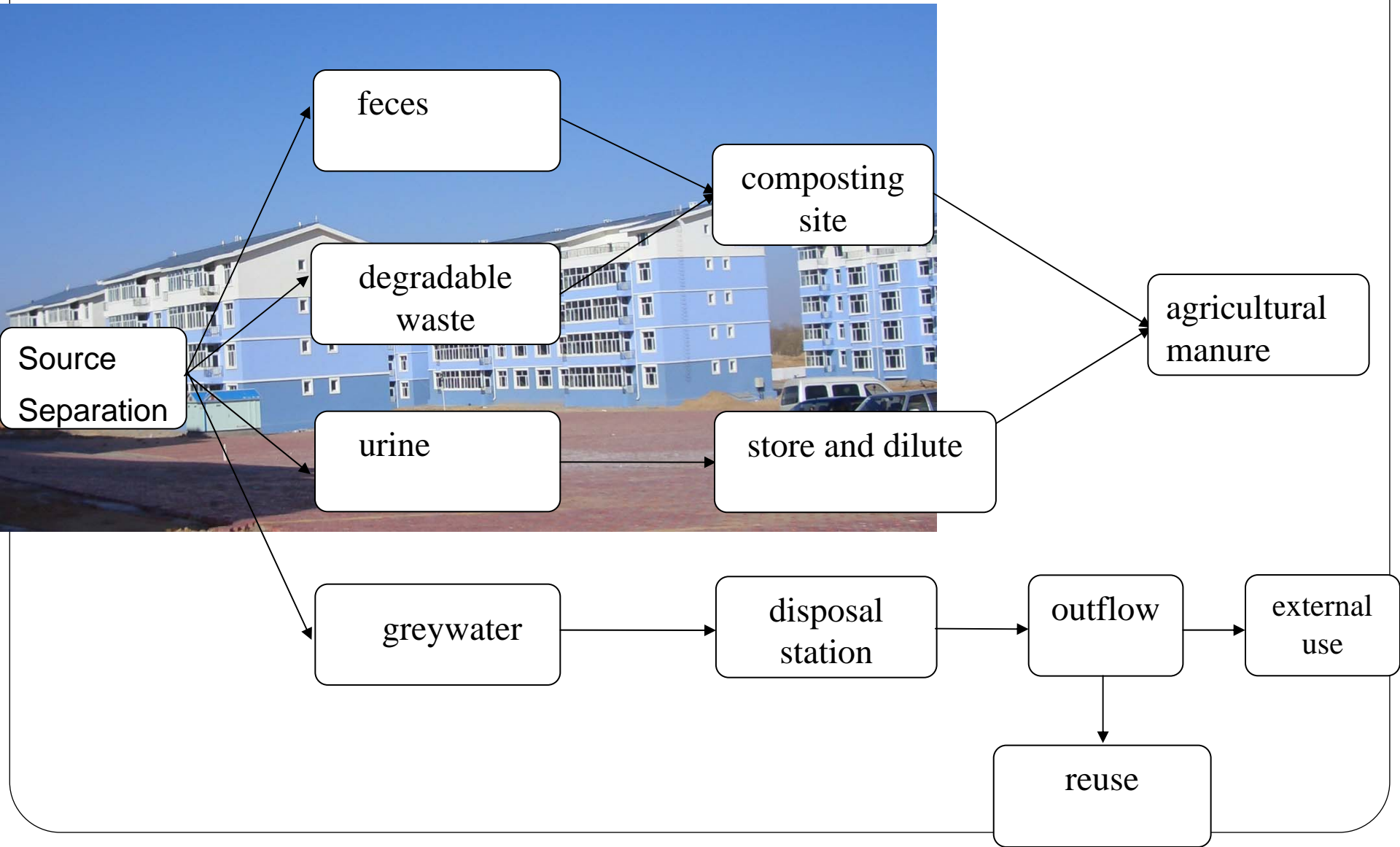
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1. Research Background



1. Research Background

生态卫生系统在城镇地区的应用 Application EcoSan System in Urban Areas

政策管理

Policy Management

Enhance the Research,
Application and Promotion of
EcoSan System

推动生态卫生
系统的研究、
应用和推广

建立合理可行
的规划

Establish Rational and
Feasible Planning

制定规范和标
准

Establish Standards

技术
创新

Technical
Innovation

1. Research Background

Case: Water Rights



国策

National Policy

Saving Energy and Reducing Emission

法律法
规

Laws and Regulations

Water Law of People's Republic of China (Revised Edition)

DRAFT PERMISSION SYSTEM OPERATION MEASURES

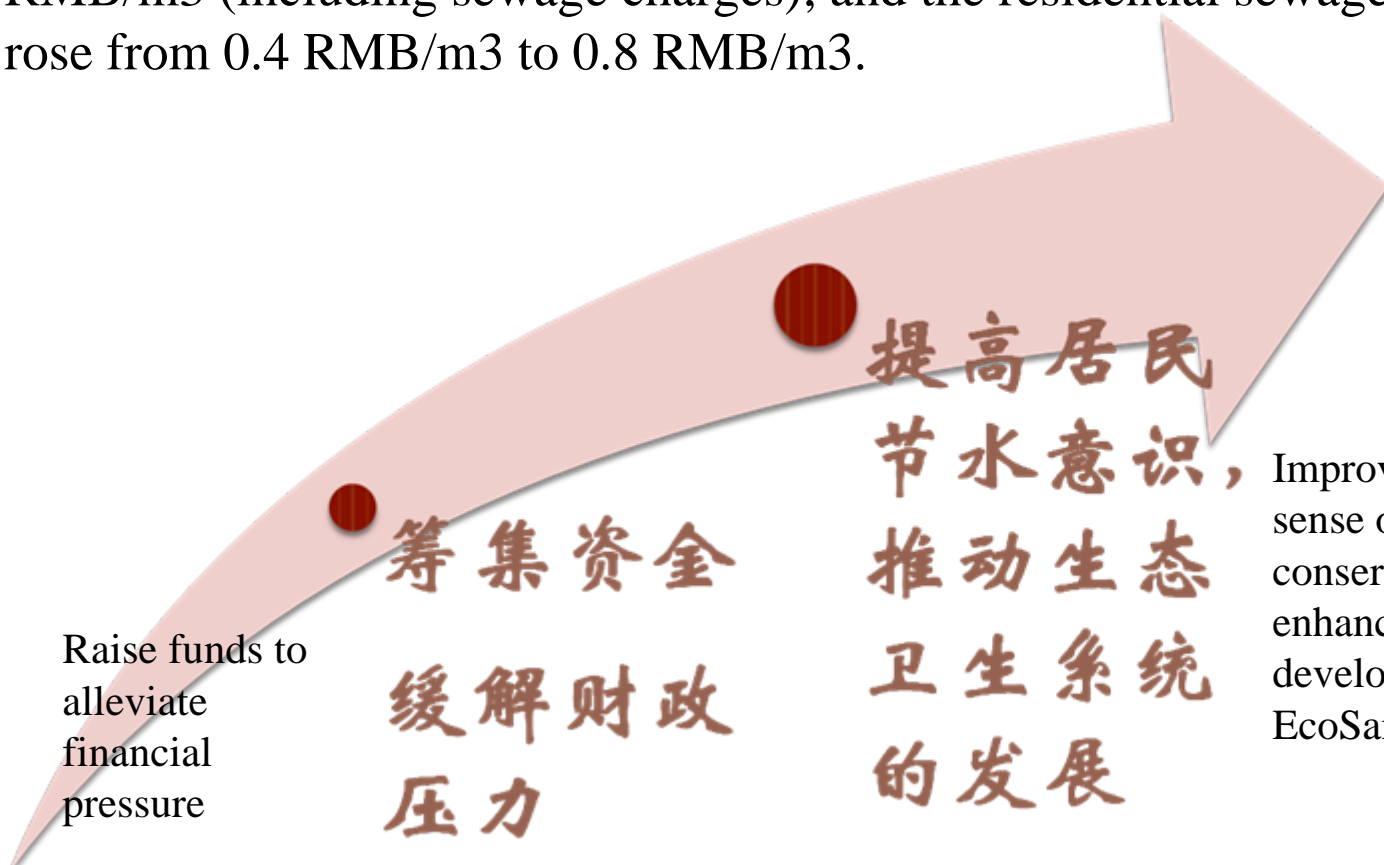
地方规
章

Local Regulations

2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2.1 Formulate a reasonable price for residential use of water

The current charge for residential water in Dongsheng District is 3.5 RMB/m³ (including sewage charges); and the residential sewage charge rose from 0.4 RMB/m³ to 0.8 RMB/m³.



Raise funds to
alleviate
financial
pressure

筹集资金
缓解财政
压力

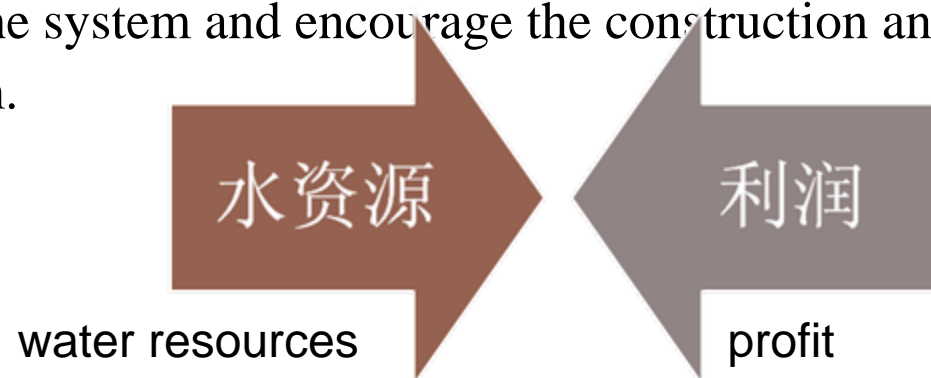
提高居民
节水意识，
推动生态
卫生系统
的发展

Improve residents'
sense of water
conservation and
enhance the
development of
EcoSan System

2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2.2 Perfect the ownership and transfer system of sewage right

- Water right is the right to use water resources.
- EcoSan System can help reduce the volume of residential water usage, and Eco-town residents can change the water resources saved into profits by transferring water right in the market so as to maintain the operation of the system and encourage the construction and use of EcoSan System.



2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2. 2 Perfect the ownership and transfer system of sewage right

- Note the following two points in further promoting water right system reform:
 1. Establish a legal system in accordance with local characteristics. In water right trade, the nature and content of water right, transferring capability and transfer conditions should be explicitly specified.
 2. Establish and regulate secondary water right market. At present, the water right transfer in Erdos City is mainly reflected in primary market.

2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2.3 Perfect the ownership and transfer system of sewage right

- The sewage right trade is to trade the right of disposing wastewater.
- EcoSan System reduces wastewater discharge volume owing to the use of dry toilets, and the disposed greywater can be recycled through self-treatment, thus resulting in basically no sewage expenditure. Users can sell extra sewage right to gain economic benefit.

2. Encourage the research, application and promotion of EcoSan System by perfecting policies

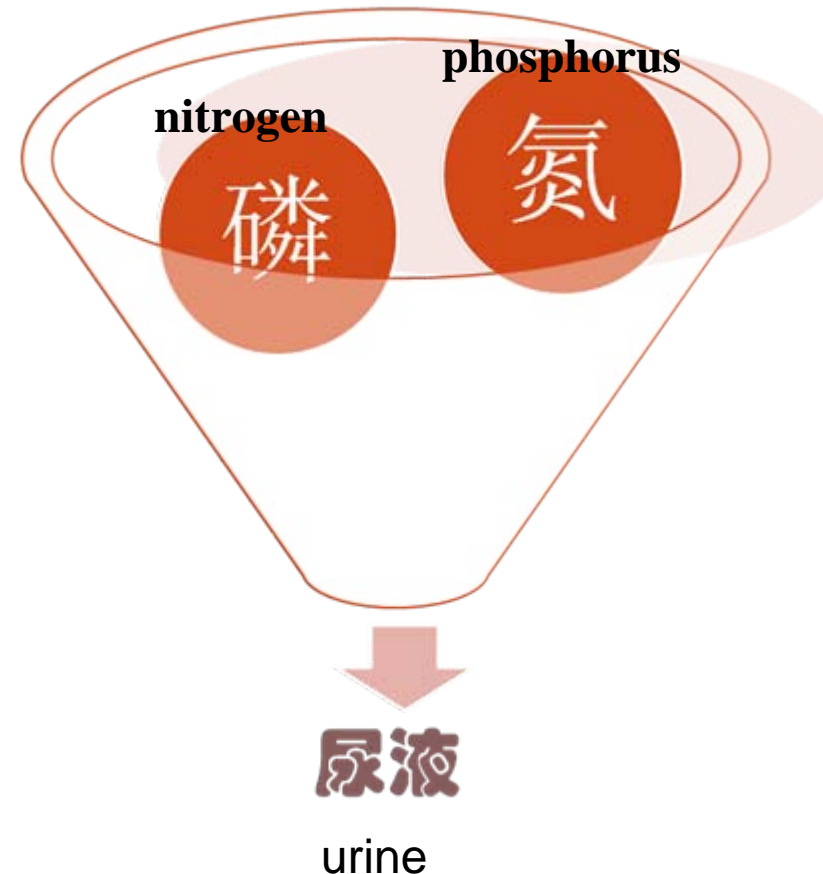
2.3 Perfect the ownership and transfer system of sewage right

- In the establishment and implementation of sewage right policies, please note the following:
 1. Rationally determine the total volume of sewage right.
 2. Establish strict supervision mechanism to ensure the sewage disposal is within the range specified by sewage right (including water quality and volume).
 3. Take the initiative to experiment and integrate local characteristics.

2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2. 4 Encourage agricultural use of feces and urine

Urine is a low-cost, high quality fertilizer, meanwhile, feces has high fertilizing efficiency, good soil improvement and water-holding capacity and ion buffer capacity.



2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2.4 Encourage agricultural use of feces and urine

- 1. Promote agricultural use of feces and urine through positive publicity and financial subsidies and establish a long-term supply-and-use relationship of feces and urine between urban and rural areas**
- 2. Popularize the technological methods of harmless treatment of feces and urine among farmers to promote rational use**
- 3. Adjust the agricultural product market and promote the market value of agricultural products which uses organic fertilizer**

2. Encourage the research, application and promotion of EcoSan System by perfecting policies

2.5 Encourage the construction of EcoSan System through investment and preferential policies

- Give preferential treatment to EcoSan projects in land expropriation and project approval procedure
- Give top priority to the water and heating supply of Eco-towns

3. Include the EcoSan System into the local development planning

- EcoSan System uses decentralized sewage treatment, thus saving the trouble of building urban sewage pipeline network. Therefore, the promotion of EcoSan System will have a great impact on the long-term planning and construction of urban drainage system.
- There are currently about 200km sewage pipelines in Dongsheng City and the sewage treatment rate has reached 85%.
- Therefore, the EcoSan system is suitable to be constructed in areas where sewage pipelines haven't been laid so as to save infrastructure construction costs. In areas where sewage pipelines are already laid, it's enough to separate feces and urine to recycle nitrogen and phosphorus and reduce the treatment load of municipal wastewater treatment plants.

4. Formulate Standards and Norms

- Effective and necessary means
- Formulate standards while referring to existing standards and norms
- Combine the characteristic of the EcoSan System

4. Formulate Standards and Norms

4.1 Select techniques

自然环境

natural environment

经济发展
水平

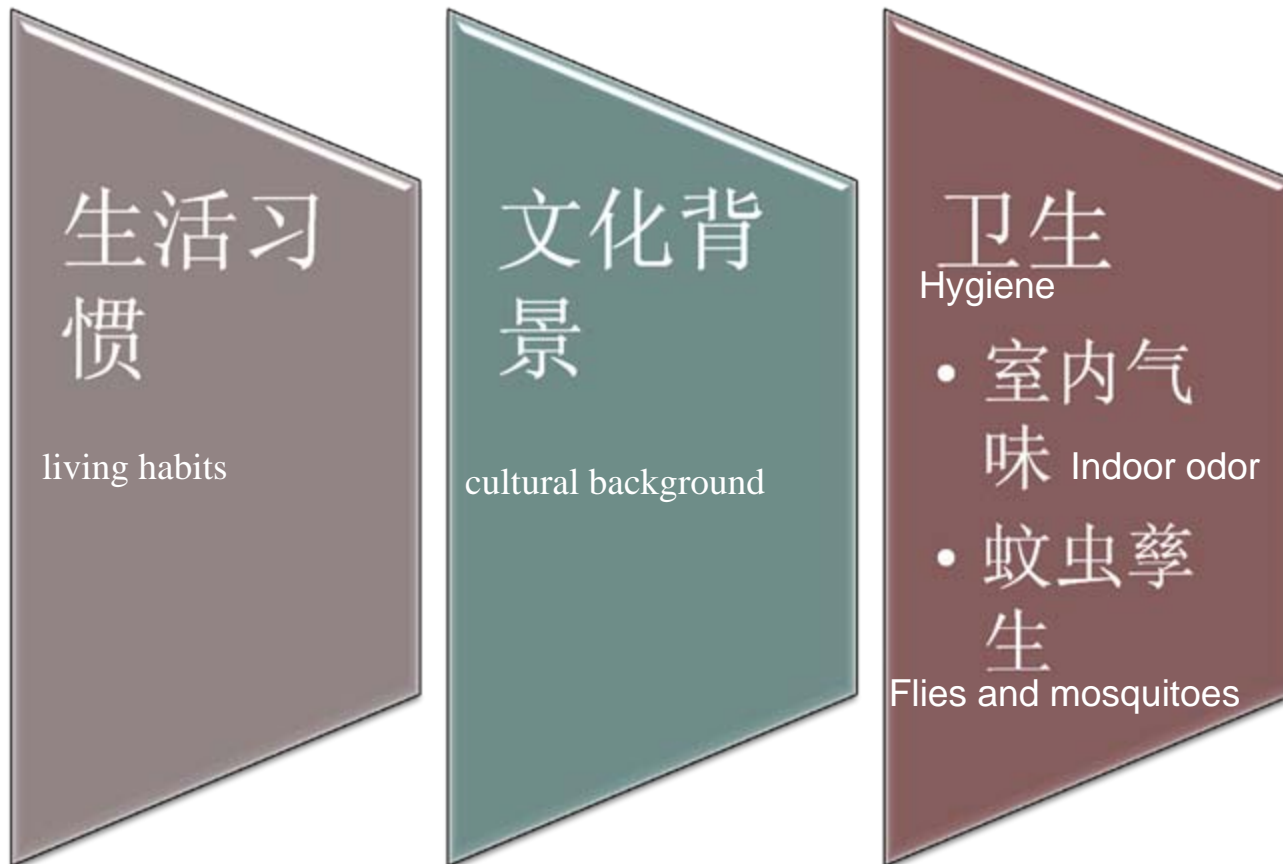
level of economic development

环境保护
意识

sense of environmental protection

4. Formulate Standards and Norms

4.2 Practical and Comfortable Attributes



4. Formulate Standards and Norms

4.3 Formulate standards while referring to existing standards and norms

	relevant standards
reuse of wastewater after treatment	code for design of building reclaimed water system (GB50336-2002) code for design of wastewater reclamation and reuse (GB/T 50335-2002)
synthetic index of composting products	compost specifications (HY525-2002)
pathogen content	control standards for urban wastes for agricultural use (GB8172-87) Sanitary standard for the non-hazardous treatment of might soil (GB7959-87)

5. 结论

- ① **The role of policy support and management first lies in researching the application promotion of the EcoSan System in urban areas, and solving various existing problems in a reasonable and quick manner to make it better meet the requirements of practical application.**

- ② **To be able to promote the EcoSan System in policies, we need to adjust water resources management policies, including perfecting water right and sewage right trade policy, rationally determining the price of water and sewage disposal and enhancing the agricultural use of feces and urine through administrative means.**

5. Conclusion

③ When planning the EcoSan System, we should take the current infrastructure construction into full consideration, and realize the ultimate utilization of existing infrastructure and the EcoSan System, and fully consider the functions and advantages of the EcoSan System in long-term development plan. While formulating the construction standards and norms of the EcoSan System, we should pay great attention to selecting techniques and materials, practical and comfortable resources, and saving energy, and fully refer to existing standards and norms and its own characteristics of the EcoSan System.

Thanks

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谢谢

Thanks