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Reflexive Law as a Pathway to Sustainable Development: Insights from China's River Chief System as a Model of Water Governance and Circular Economy Practice

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PROBLEM & MOTIVATION

- ❑ Environmental problems are complex and dynamic
- ❑ Command-and-control law: strict, top-down
- ❑ Cannot adapt to local risks
- ❑ EU also faces challenges (Water Framework Directive)



RESEARCH QUESTIONS

- ☐ Reflexive law and governance
- ☐ Lessons from River Chief System
- ☐ Contribution to Circular Economy

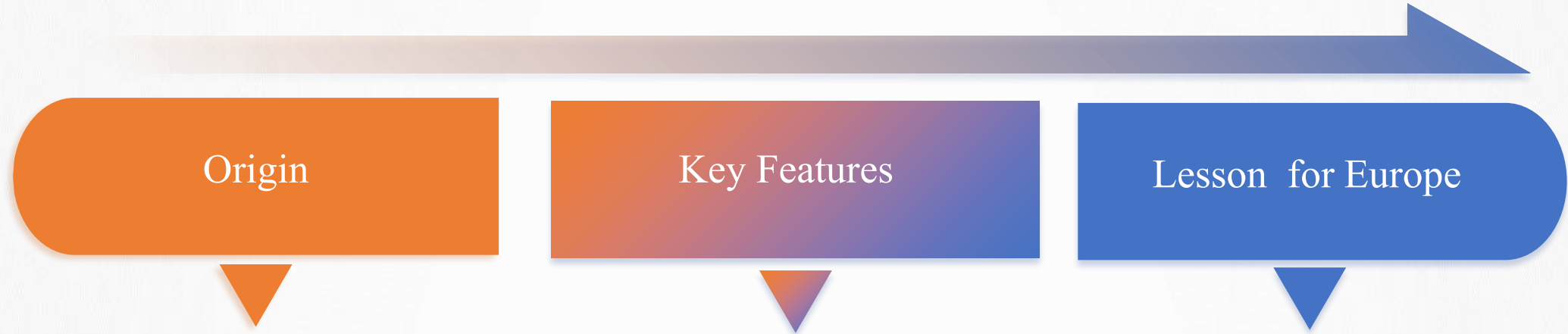


THEORETICAL FRAMEWORK

- ❑ Reflexive Law = adaptation, participation, and transparency
- ❑ River Chief System = water governance example
- ❑ Circular Economy = reuse, recycling (water focus)
- ❑ EU context: Green Deal, CSRD



CASE STUDY: RIVER CHIEF SYSTEM



- Taihu Lake algae crisis, 2007
- Urgent water pollution problem



The blue algae-plagued Taihu Lake in 2017. /VCG Photo

<https://news.cgtn.com/news/2019-09-19/Algae-plagued-lake-in-east-China-gets-cleaner-K6M1Evw1JC/index.html>

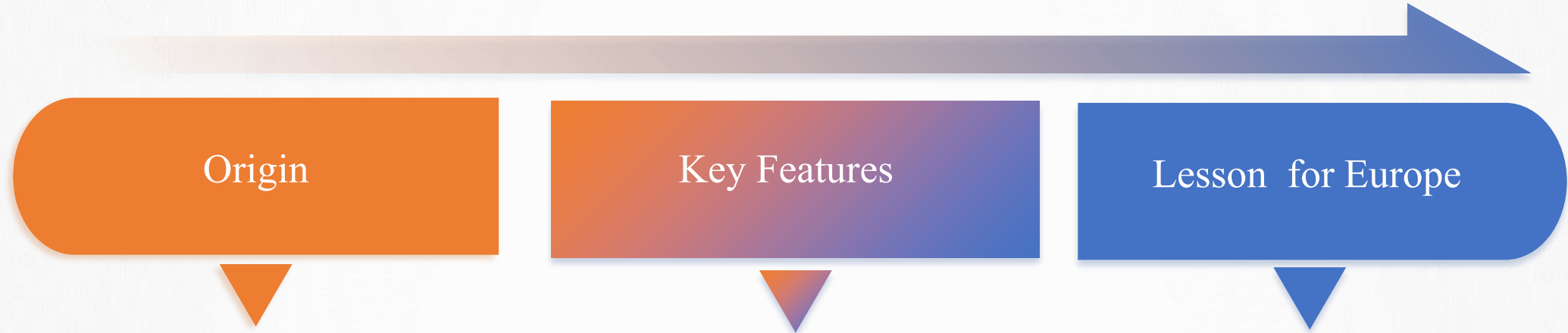


Customers queue to buy bottled water at a supermarket in Wuxi, East China's Jiangsu Province, May 30, 2007. Local residents in Wuxi rushed to buy bottled water when the tap water developed a strange smell. The blue-green algae outbreak in Taihu Lake affected the underground water in Wuxi and caused the water crisis, Xinhua said. [newsphoto]

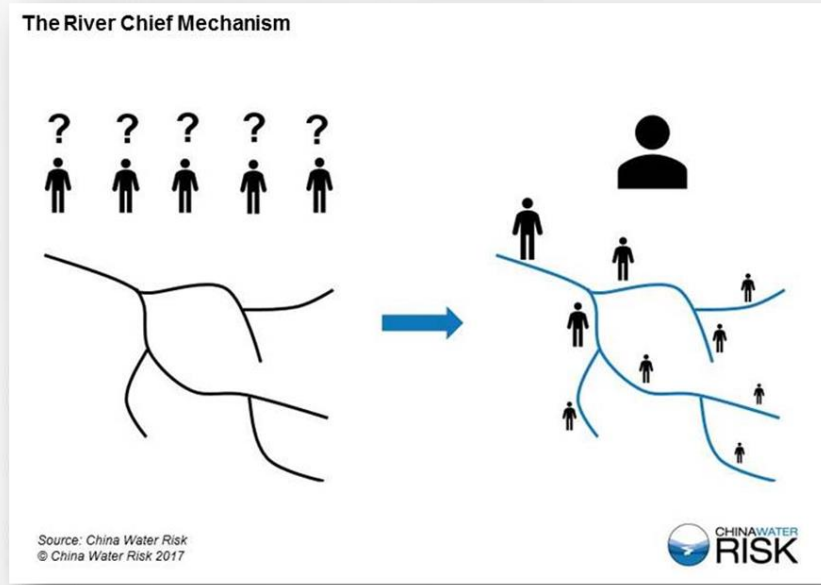
https://www.chinadaily.com.cn/china/2007-05/31/content_884102.htm



CASE STUDY: RIVER CHIEF SYSTEM



- Taihu Lake algae crisis, 2007
- Urgent water pollution problem
- Decentralisation of authority
- Accountability of River Chiefs
- Monitoring (incl. digital tools)
- Public participation



Legal Framework of RCS

- **National:** Water Pollution Prevention and Control Law (Art. 5) – RCS at all levels
- **Local:** Few provinces with special laws; most use rules/policies
- **Implication:** Fills governance gaps, fits legal system

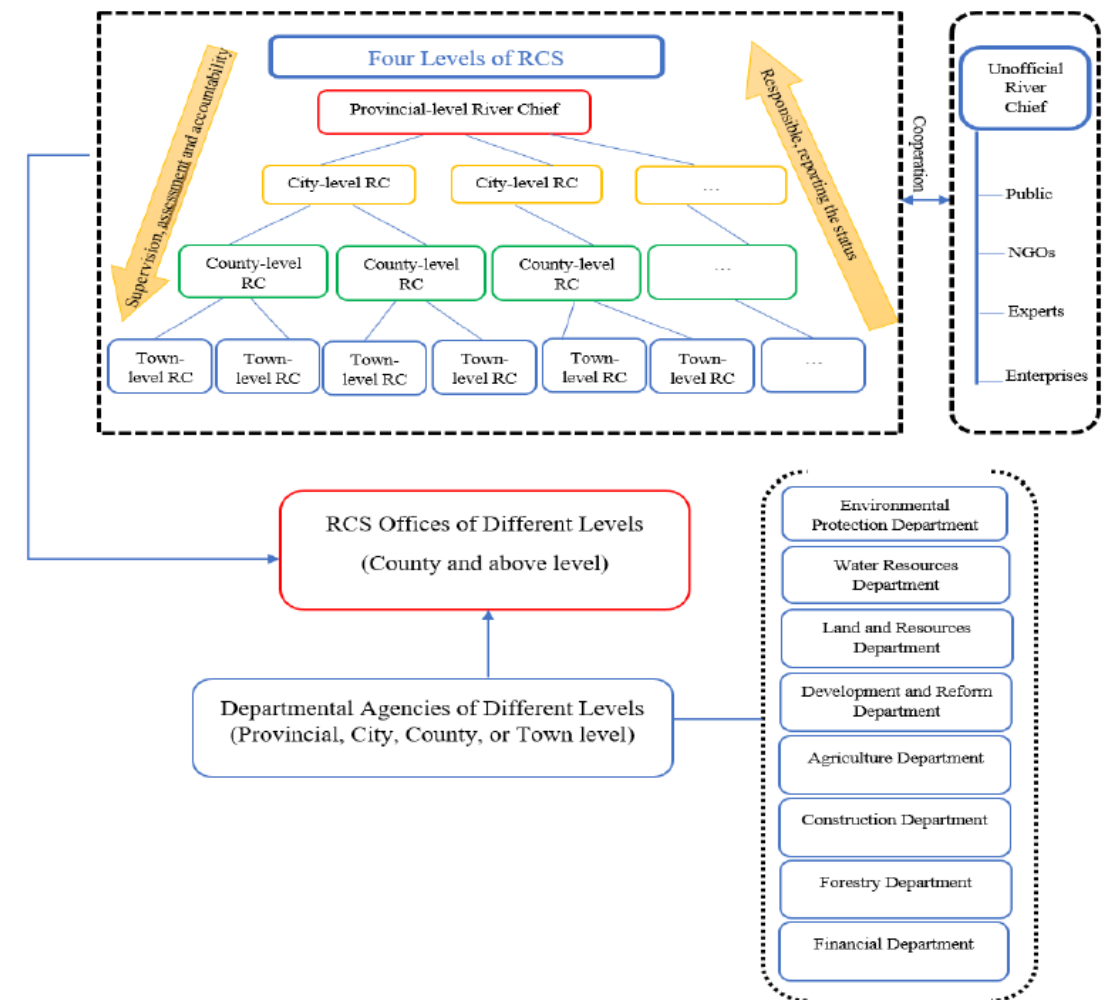


Figure 1. Operational and Cooperation Framework of the River Chief System





Public Participation in RCS

- Public boards show responsible officials and hotlines
- Citizens can report issues via phone, WeChat, or apps
- Smart platforms share water data and allow interactive feedback
- Transparency builds accountability

广州市河长制公示牌(天河区)

| | | | | |
|-----------|--|---------|-----|-------------|
| 河道(涌)名称 | 猎德涌 | 各级河长 | 姓名 | 联系电话 |
| 河段起点 | 黄埔大道跨涌桥 | 区级河长 | 林道平 | |
| 河段终点 | 天河路跨涌桥 | 镇(街)级河长 | 池锦民 | 13922131028 |
| 河段长度 | 750m | 村(居)级河长 | 吕明亮 | 13711682088 |
| | | 管理单位责任人 | 张雪芳 | 13902296055 |
| 区级河长职责 | 组织责任河道水环境治理, 推动污染源和违章建筑查控, 城中村截污、河涌截污、排水管网错漏混接整改及相关工程征地拆迁等工作, 落实河道和排水设施维护经费及人员, 协调解决难点问题。 | | | |
| 镇(街)级河长职责 | 负责或配合河道水环境治理工程征地拆迁, 组织查控各类污染源和违章建筑、封堵违法排污口, 落实河道和排水设施日常维护。 | | | |
| 村(居)级河长职责 | 配合河道水环境治理工程征地拆迁, 协助执法部门查处各类污染和违法建设行为, 封堵违法入河排污口, 协助村(社)污水管网接驳, 开展河道、排水设施、污染源、违章建筑日常巡查以及村(社)涉水保洁。 | | | |
| 整治目标 | 河道无直排污水、河面无垃圾、沿岸无违章、堤岸无损坏、绿化无损毁。 | | | |
| 监督电话 | 12345(市民服务热线) | | | |

12345微信 广州治水APP 广州市治水办 制

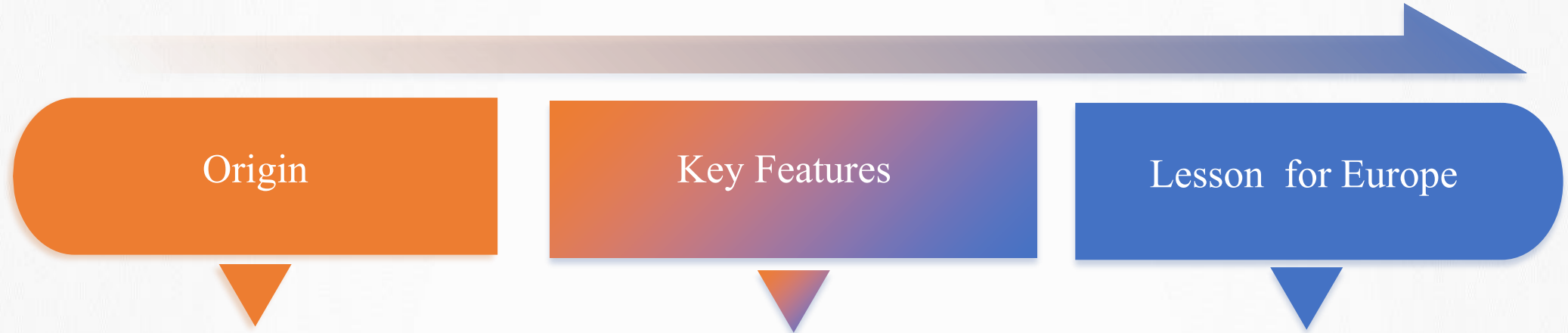
<http://www.franzero.com/view.php?id=72>



<https://www.dutenews.com/n/article/8520756>



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- Clear legal responsibility for water outcomes
- Accountability design can support reflexive law
- Transferable insights for EU water governance



MAIN FINDINGS

- ❑ Flexibility: ‘one river, one policy’
- ❑ Cooperation: multi-stakeholder
- ❑ Innovation: strict rules → recycling
- ❑ EU link



DISCUSSION & CONTRIBUTIONS

- ☐ RCS = reflexive law in practice
- ☐ Compliance → innovation
- ☐ Law influences business
- ☐ Global/EU use



LIMITATIONS & FUTURE WORK

- ☐ China-based case; transfer caution
- ☐ Participation risks
- ☐ Reflexive law–CE link evolving
- ☐ Future: EU comparison



CONCLUSION

- ❑ Reflexive law = adaptive, participatory
- ❑ Compliance → innovation
- ❑ Global/EU lessons



THANK YOU!

QUESTIONS WELCOME

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