



State of wastewater management in other WEPA countries

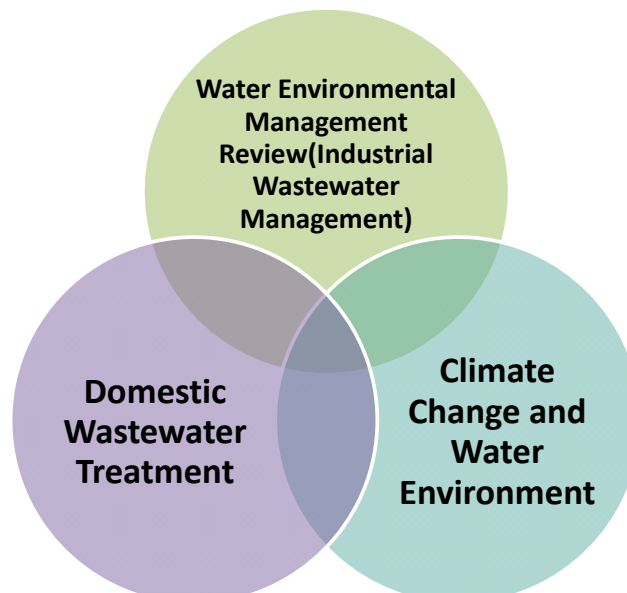
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WEPA (Water Environment Partnership in Asia)

Knowledge Sharing for Solution Finding



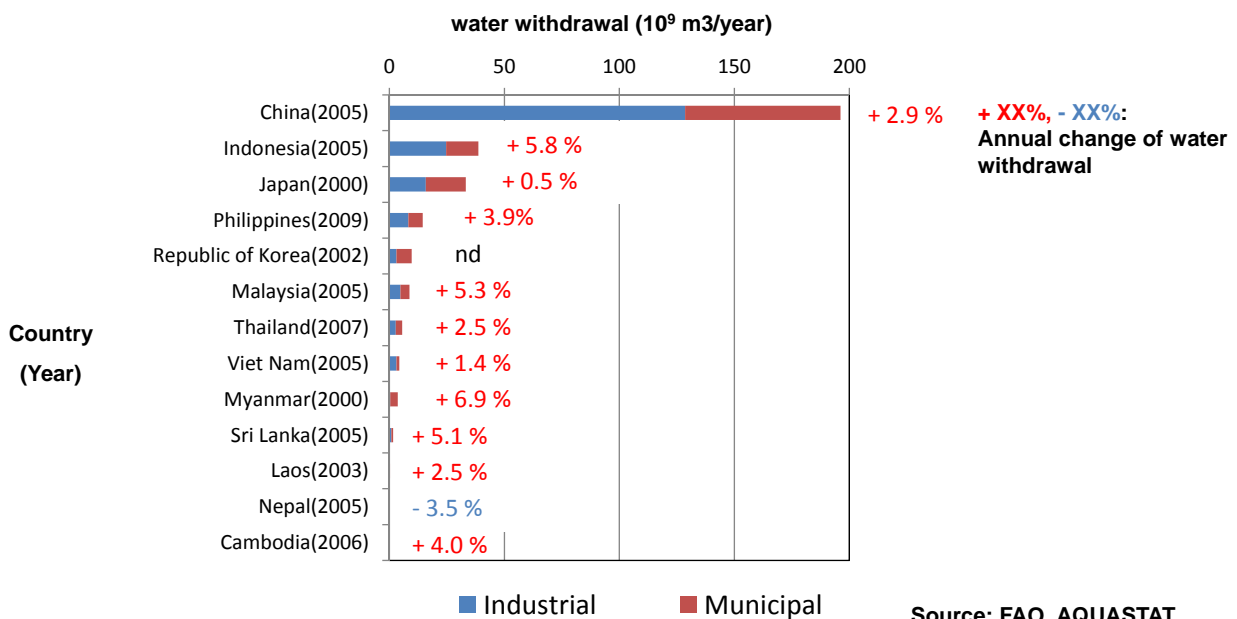
WEPA Partner Countries

WEPA consists of partners in **13** Asian countries

1. Democratic Socialist Republic of Sri Lanka (Sri Lanka)
2. Federal Democratic Republic of Nepal (Nepal)
3. Japan (Japan)
4. Kingdom of Cambodia (Cambodia)
5. Kingdom of Thailand (Thailand)
6. Lao People's Democratic Republic (Lao PDR)
7. Malaysia (Malaysia)
8. People's Republic of China (China)
9. Republic of Indonesia (Indonesia)
10. Republic of Korea (Republic of Korea)
11. Republic of the Philippines (Philippines)
12. Socialist Republic of Viet Nam (Viet Nam)
13. Union of Myanmar (Myanmar)



Change of Water Use for Domestic and Industrial Purposes



Latest water withdrawal for domestic and Industrial purposes and annual change of water withdrawal in WEPA countries

Stakeholders for Wastewater Management

- **Governmental Sector (Central and Local)**
- **Private Sector/Industrial Sector**
- **Community**
- **Individual person (house owner)**

Methodology for Domestic Wastewater Treatment

Centralized Treatment

Wastewater collection and treatment system for more than two communities (sewerage treatment plant)



Cluster Treatment

Wastewater collection and treatment system for two or more households but less than an entire community (such as community based treatment plant)

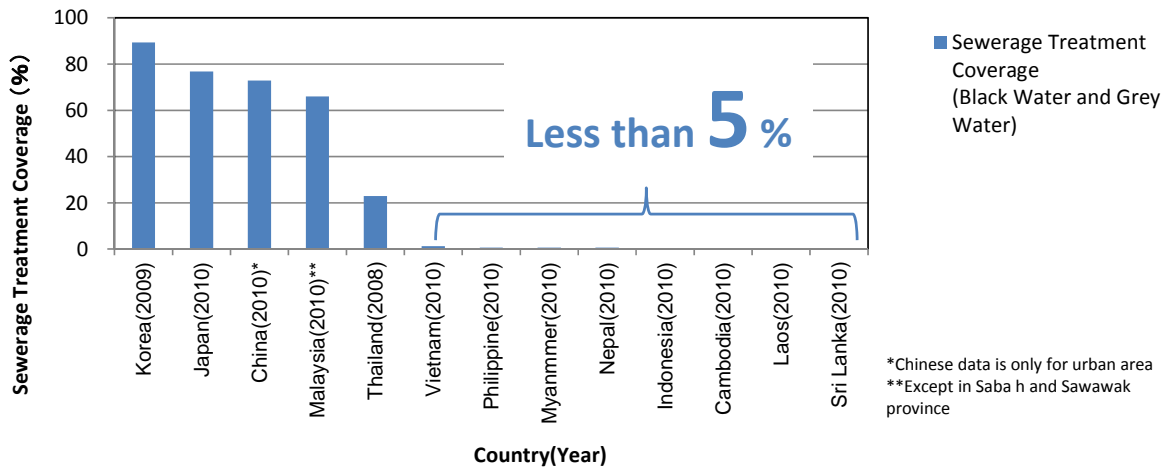


On-site Treatment

Treatment system to collect, treat and discharge domestic wastewater from individual households without the use of community-wide sewers (such as septic tank, Johkasou)

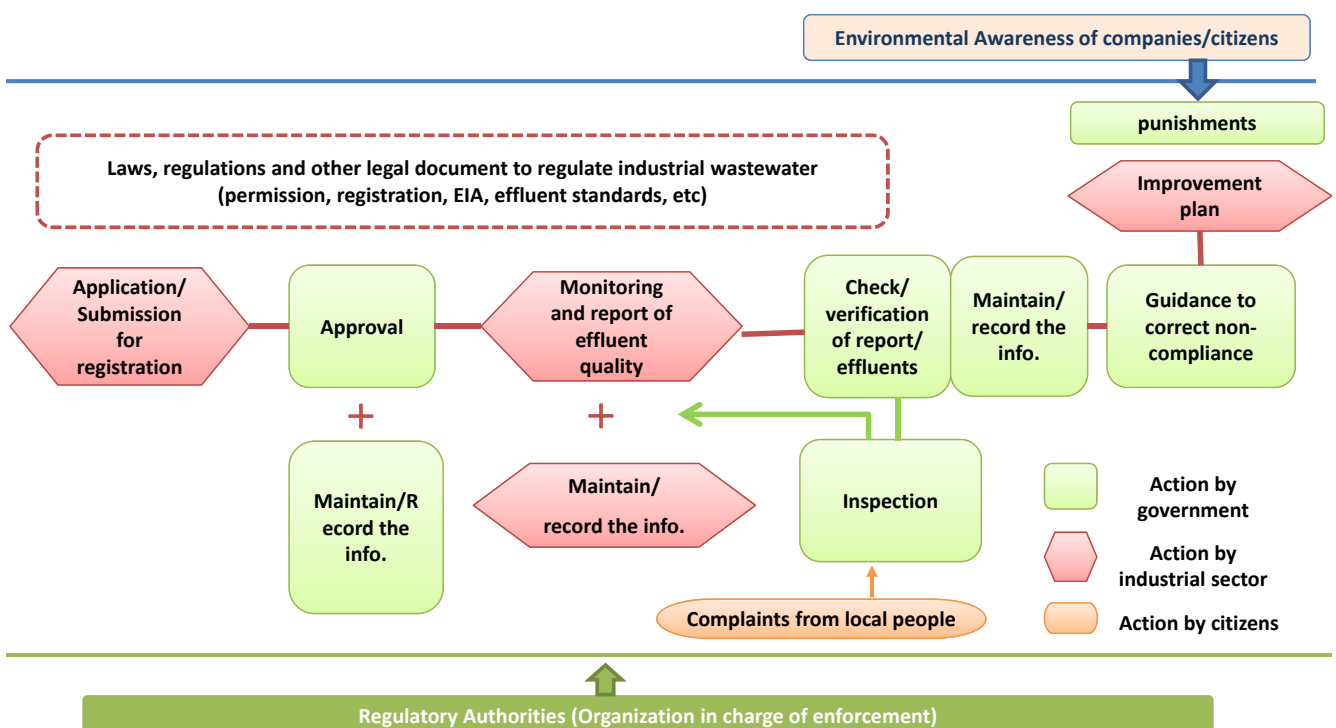


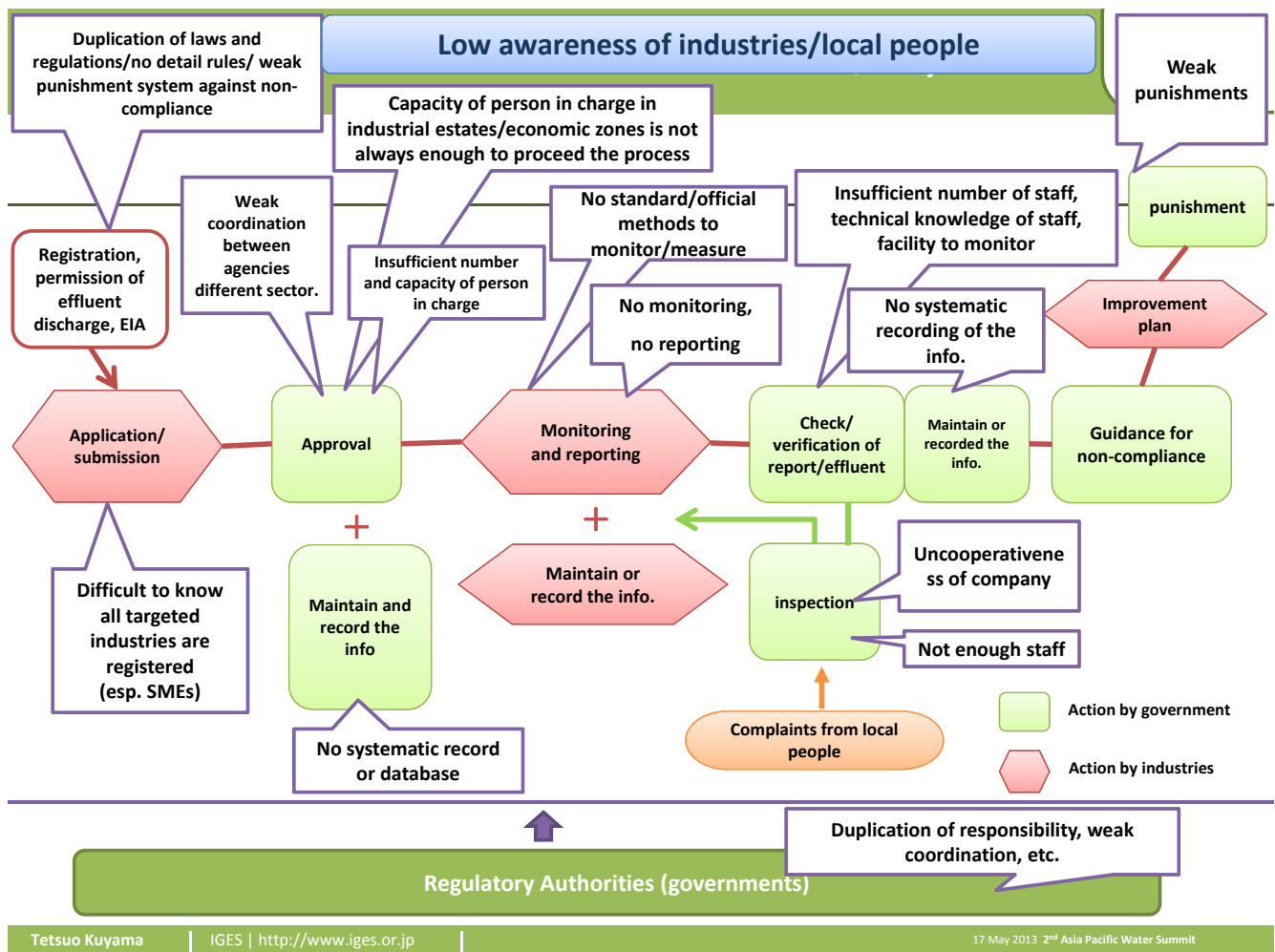
Centralized Treatment Coverage in WEPA Countries



Service coverage ratio of sewerage treatment in WEPA countries

General Flow of Implementation/Enforcement for Industrial Wastewater Management





Technical Workshop -Voice from Asia for Better Water Quality-



Major Issues identified through Review of Industrial Wastewater Management in WEPA countries

- **Lack of capacity of staff, equipment, and knowledge** in order to implement legal procedure for industrial wastewater management
- **Not enough baseline information about industrial wastewater** such as inventory data, data of industry subject to regulation, and data of wastewater quality for enforcement of legal system to regulate industrial wastewater

Summary

- **Wastewater Management** is important issue in most of Asian countries but **levels of implementation and enforcement are quite different** among different Asian countries.
- **Different stakeholders** such as governmental sector, private sector, and community are involved in wastewater management.
- There is **not enough baseline information** about wastewater especially in the countries with low implementation and enforcement of wastewater management in order to prepare appropriate and feasible wastewater management plan.

Thank you for your participation