



UNITED NATIONS
UNIVERSITY
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Institutional Arrangements and Collaboration for Safe Use of Wastewater in Agriculture in Southeast and Eastern Asia

Presentation based on Questionnaire Response

- Cambodia
- China
- Lao PDR
- Malaysia
- Mongolia
- Philippines
- Thailand
- Timor-Leste
- Vietnam

Institutional Levels/Categories

- National level across different ministries
- District level across related institutions
- Academic level across educational institutions
- Farmers level across individual and associations
- Policy level addressing the use of WHO/national guidelines
- Regional level across countries in the region

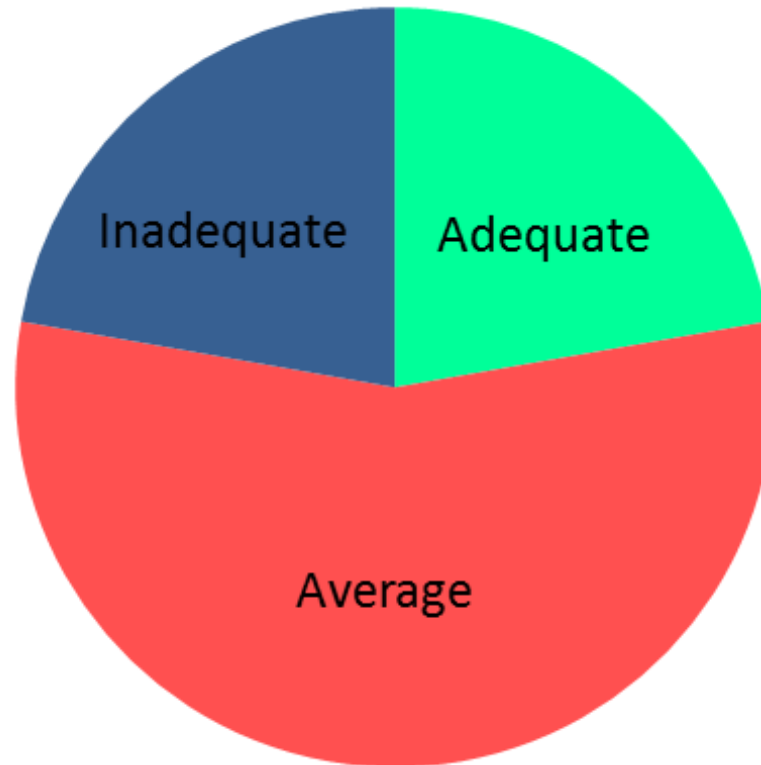
National Level – Responsible Ministry

- Great diversity at the national level ministries among countries for wastewater management
 - Ministry of Agriculture
 - Ministry of Environment
 - Ministry of Infrastructure
 - Ministry of Public Work and Transport
 - Ministry of Energy, Green Technology, and Water
 - Ministry of Construction and Infrastructure of Cities

National Level – Responsible Ministry

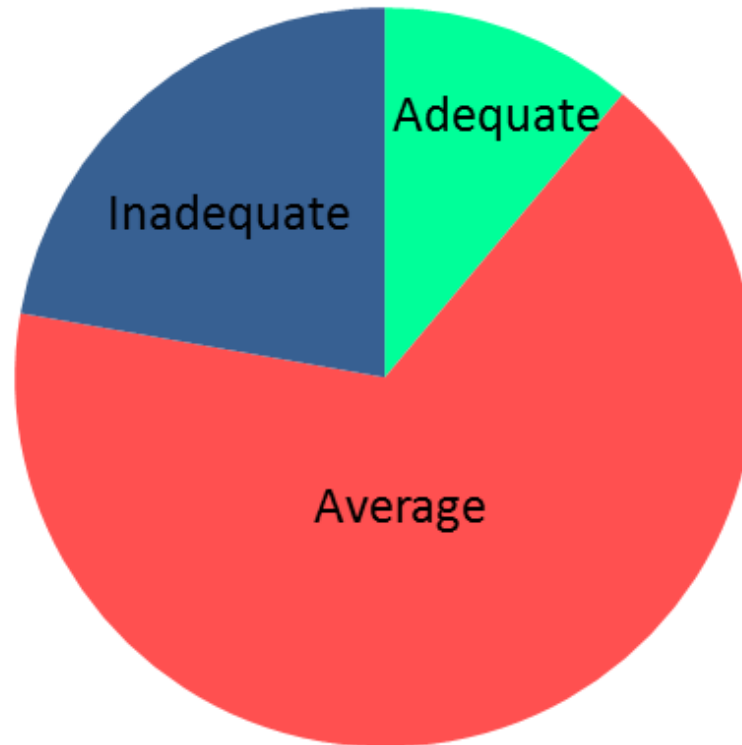
- Thailand is a unique case – four ministries are involved at the national level with specific aspect of wastewater management
 - Ministry of Industry (for industrial wastewater)
 - Ministry of Interior (for community wastewater)
 - Ministry of Natural Resources and Environment (for water quality control)
 - Ministry of Public Health (for human excreta collection, transport, and treatment)

Inter-ministerial Collaboration



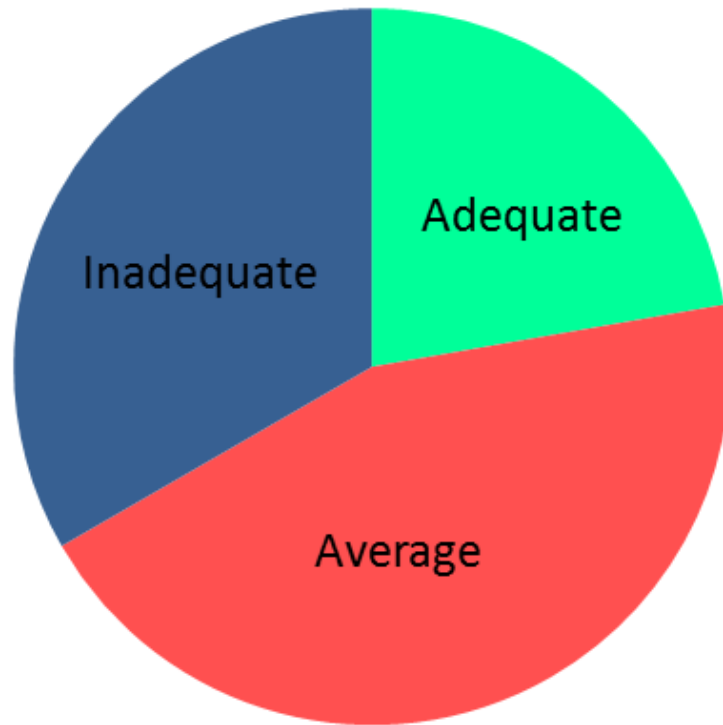
Categories included excellent, adequate, average, inadequate, and none

Government's Commitment and Budget Allocation



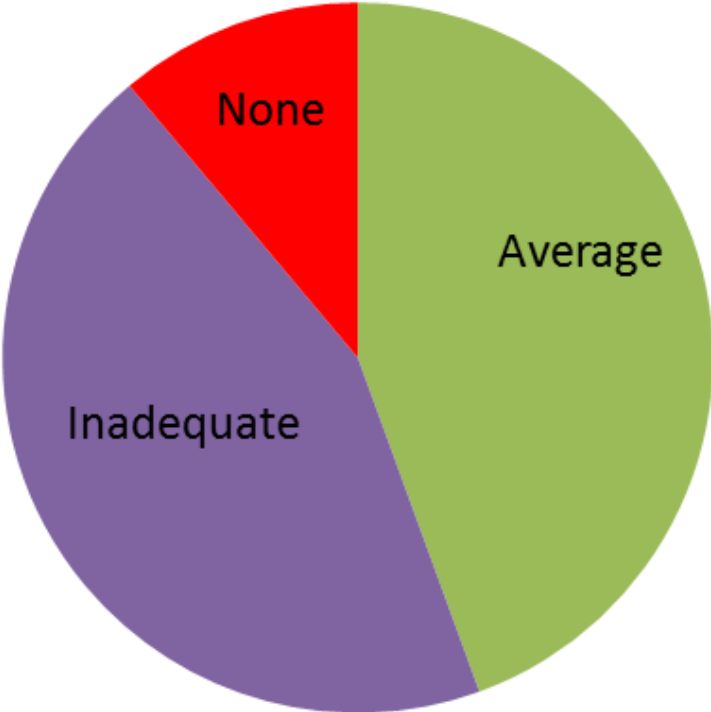
Categories included excellent, adequate, average, inadequate, and none

Institutional Collaboration at District Level



Categories included excellent, adequate, average, inadequate, and none

Institutional Commitment and Budget Allocation at District Level



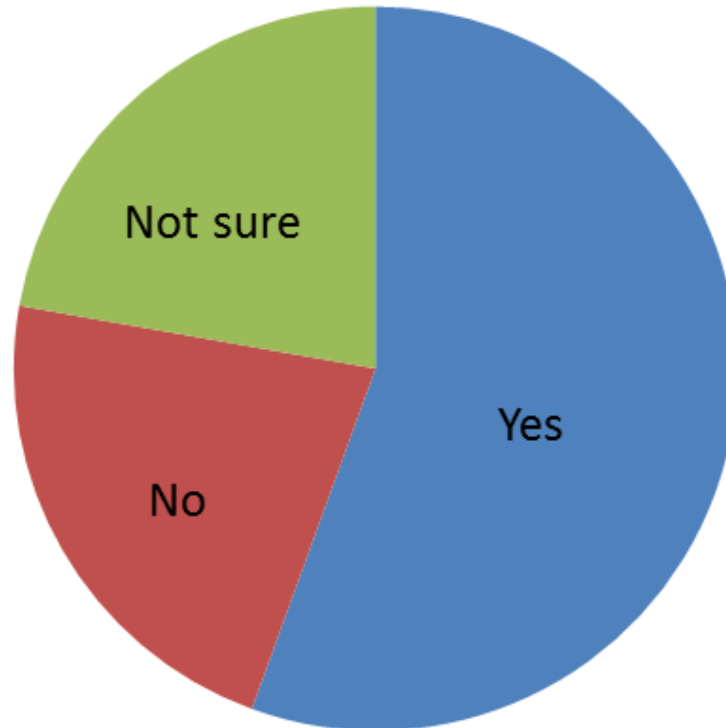
Categories included excellent, adequate, average, inadequate, and none

Academic Level: Wastewater in Schools' Curricula



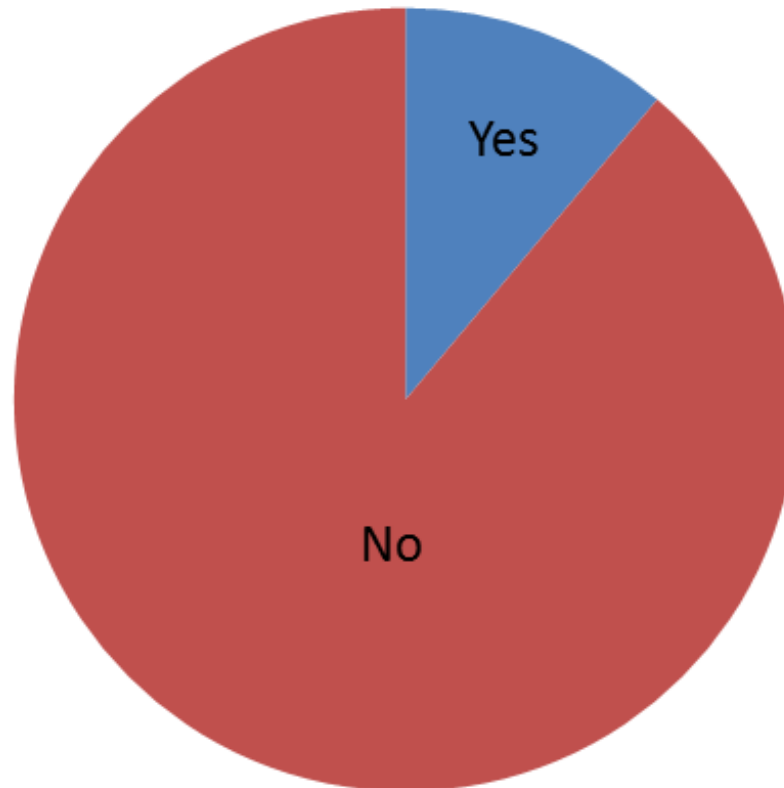
Topic of wastewater management in any form as a part of the curricula in schools

Academic Level: Wastewater in Universities' Curricula



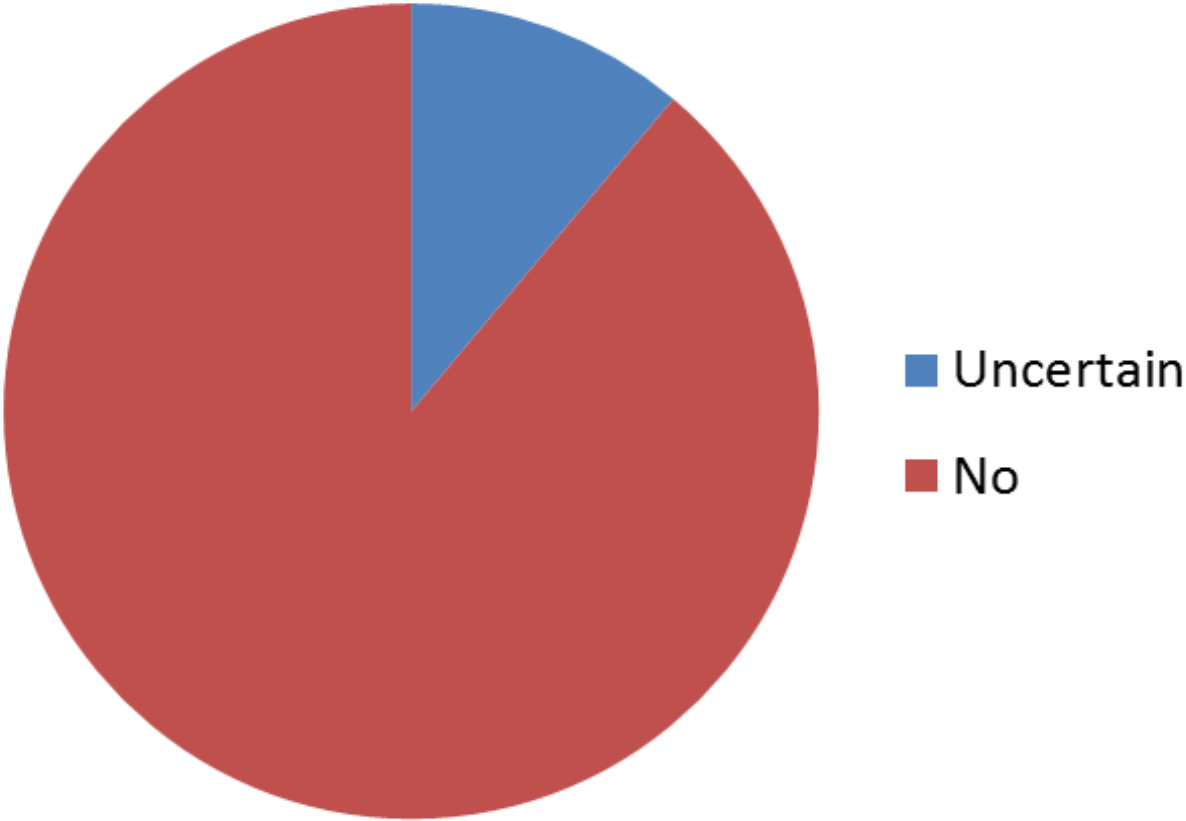
Topic of wastewater management as a part of the curricula in universities

Farmers/Water Users Associations



Farmers/water users associations dealing with local institutions for wastewater delivery

Farmers pay to Local Institutions for Wastewater



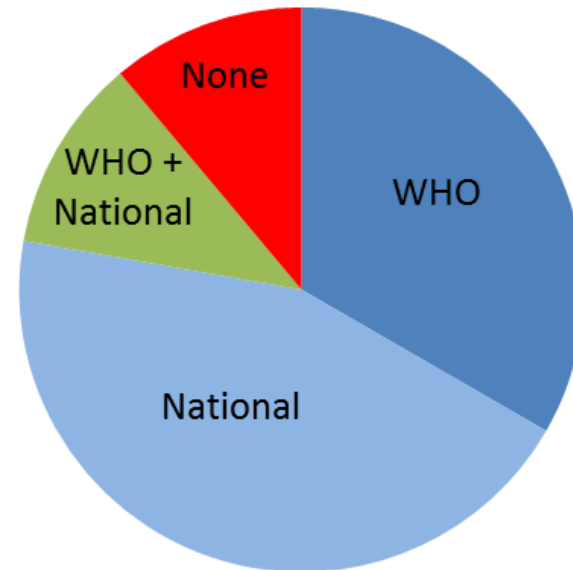
Policy Level: Guidelines for Wastewater Use

WHO Guidelines: Cambodia, Malaysia, and Thailand

WHO + National Guidelines: Vietnam

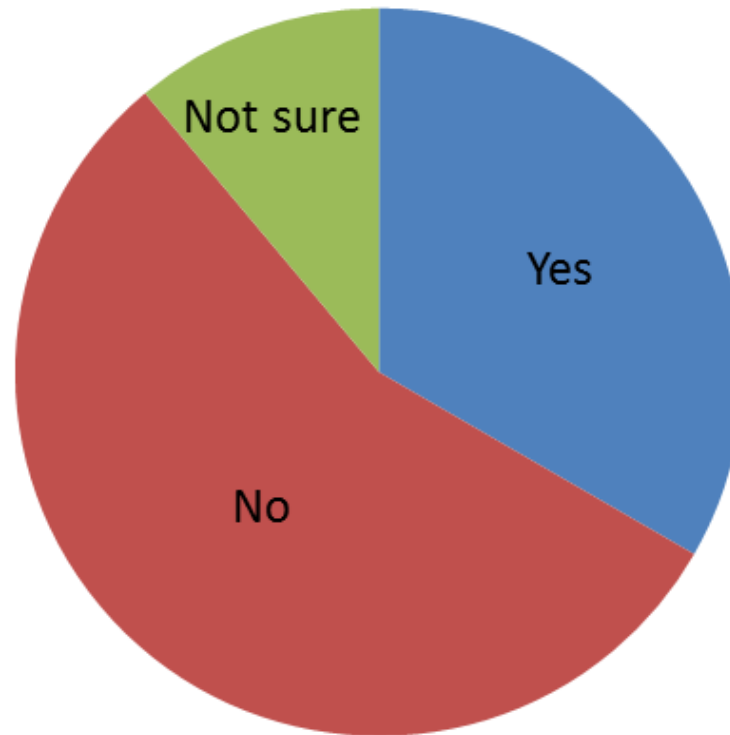
National Guidelines: China, Mongolia, Philippines, and Timor-Leste

None: Lao PDR



Categories included WHO guidelines, WHO + national guidelines, national guidelines, and none

Regional Level: Collaboration across Countries



In case of yes, (1) collaboration through joint projects funded by international donor organizations and (2) participation in regional workshops

Discussion

1. What status do we have in regard to institutional arrangements at different levels for wastewater management?
2. What success stories do we have in terms of institutional collaboration addressing safe and productive use of wastewater?
3. How can we improve institutional collaboration addressing safe and productive use of wastewater?