



UNITED NATIONS
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Institutional Arrangements and Collaboration for Safe Use of Wastewater in Agriculture

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UNU-INWEH

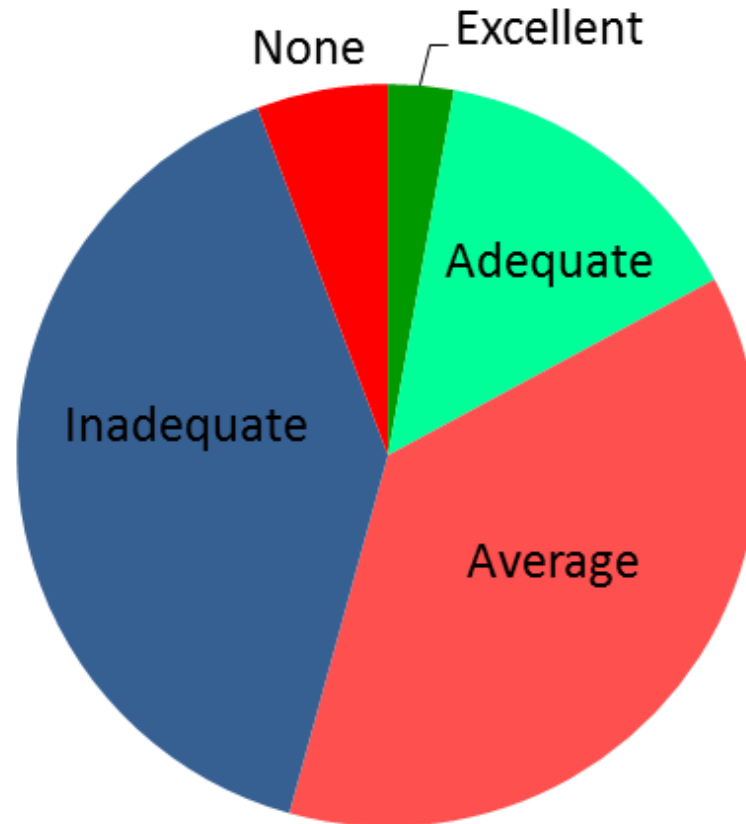
Institutional Levels/Categories

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

National Level – Responsible Ministry

- Diversity at the national level ministries among countries for wastewater management
 - Ministry of Water (and Energy)
 - Ministry of Water and Environment
 - Ministry of Agriculture (Water and Forestry)
 - Ministry of Environment (Wildlife and Tourism)
 - Ministry of Natural Resources
 - Ministry of Energy and Public Utilities
 - Ministry of Local Government and Rural/Urban Development
 - Municipalities

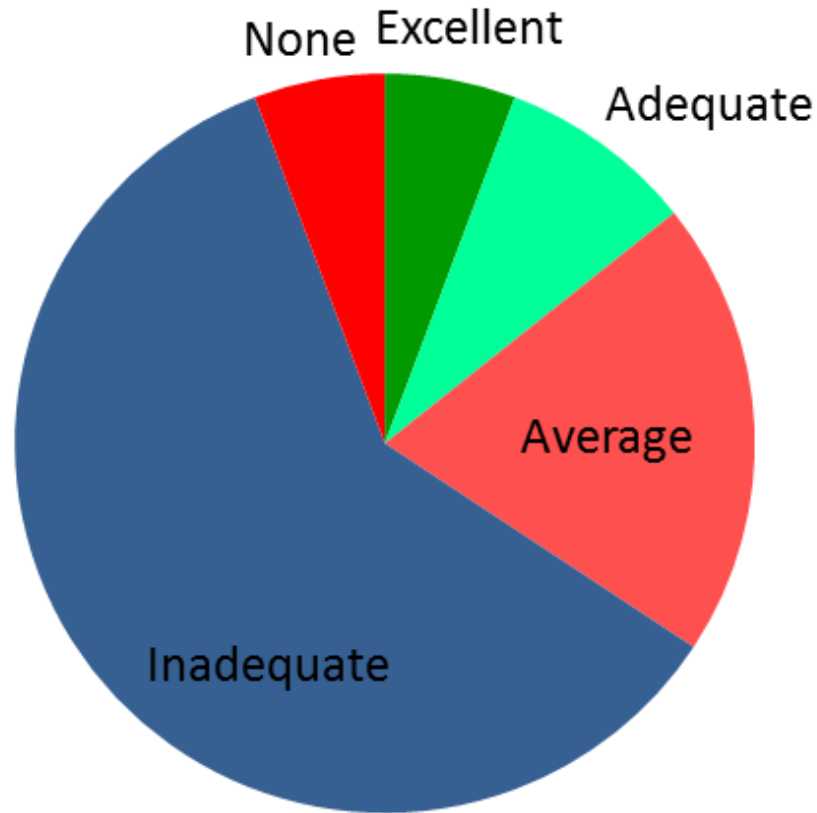
Inter-ministerial Collaboration



Excellent: Swaziland

Adequate: Botswana and Mauritius

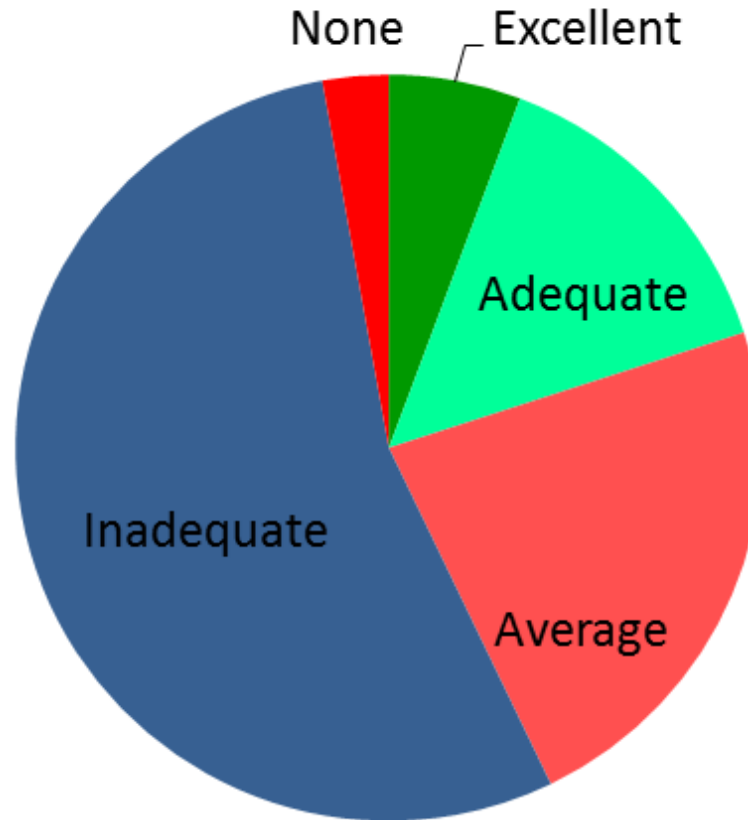
Government's Commitment and Budget Allocation



Excellent: Botswana

Adequate: Mauritius

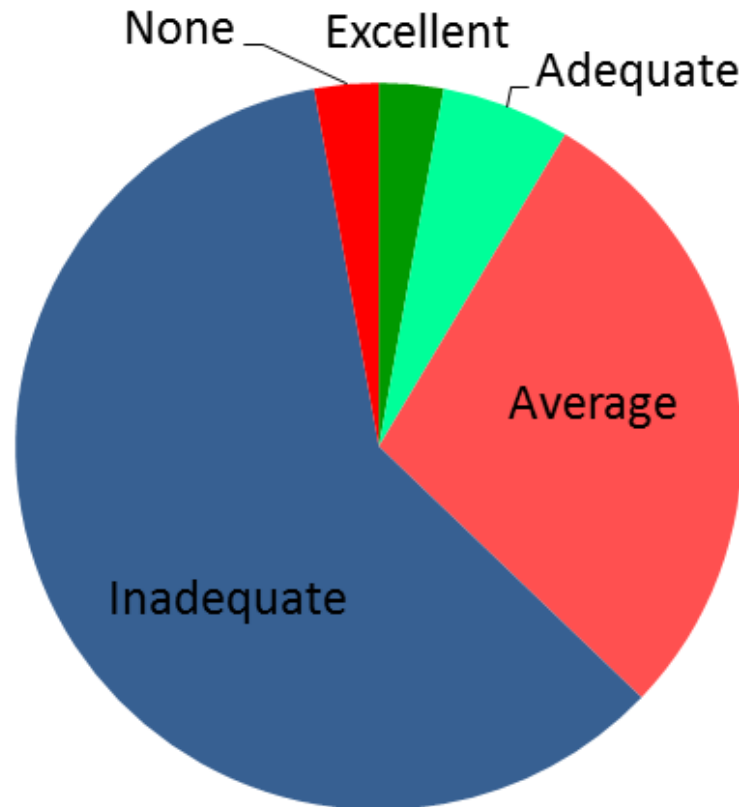
Institutional Collaboration at District Level



Excellent: Swaziland and Namibia

Adequate: Botswana and Seychelles

Institutional Commitment and Budget Allocation

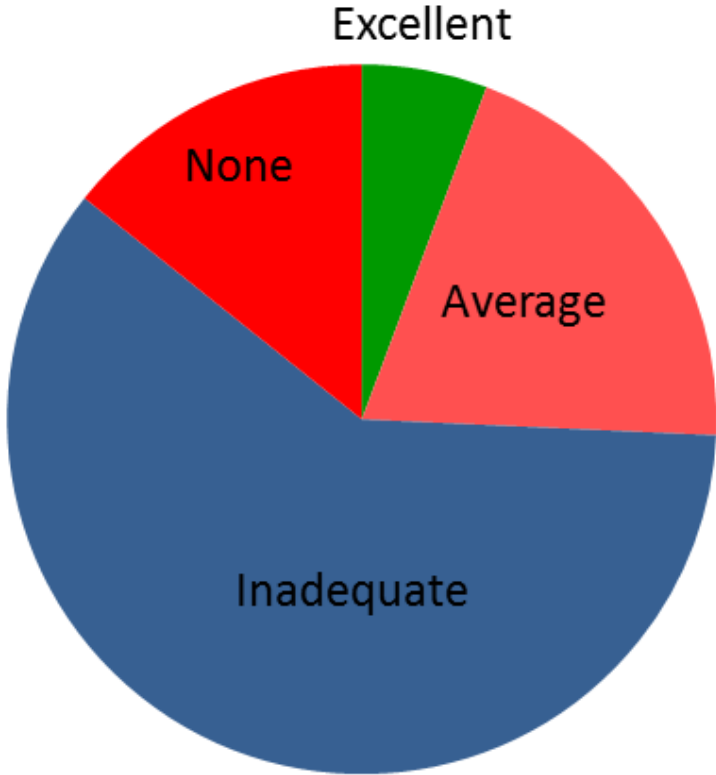


Excellent: Namibia

Adequate: Botswana and Swaziland

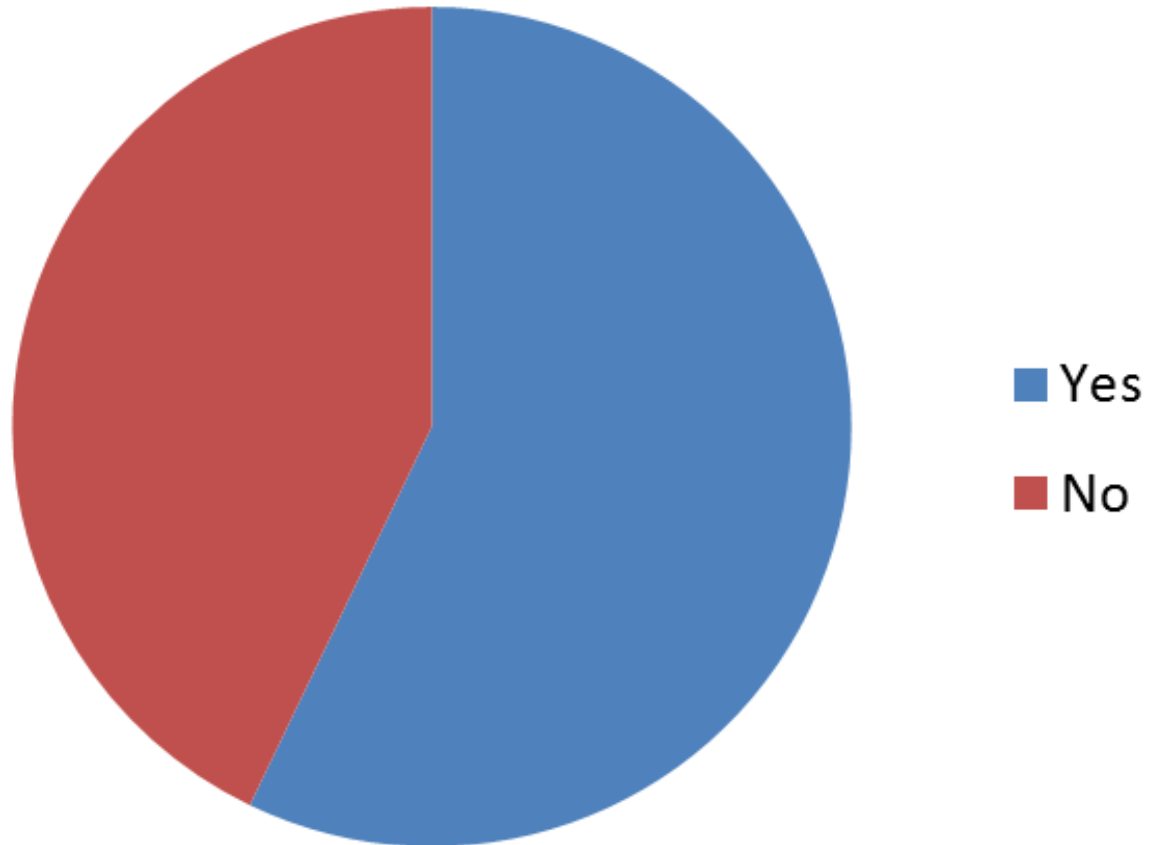
Variable: Adequate in large cities, inadequate in small towns (South Africa)

Multi-institutional Collaboration (PPP)



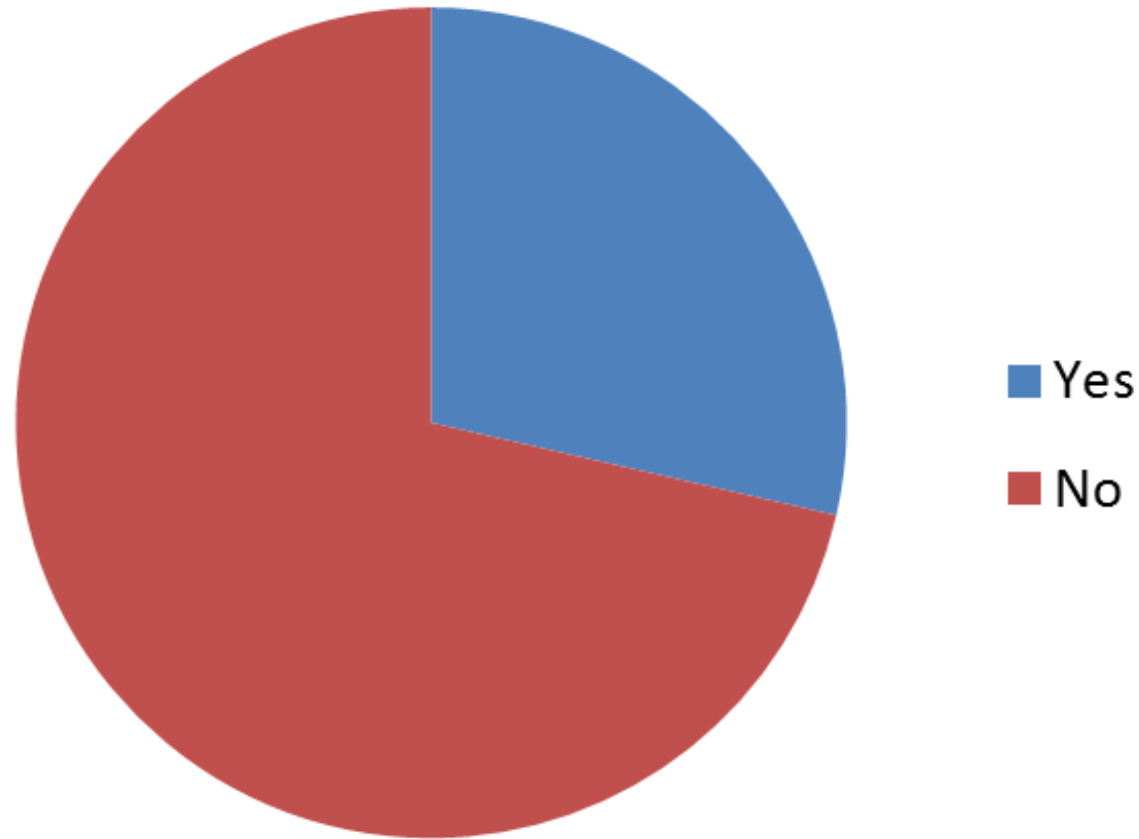
Excellent: Swaziland and Namibia

Academic Level: Wastewater in Schools' Curricula



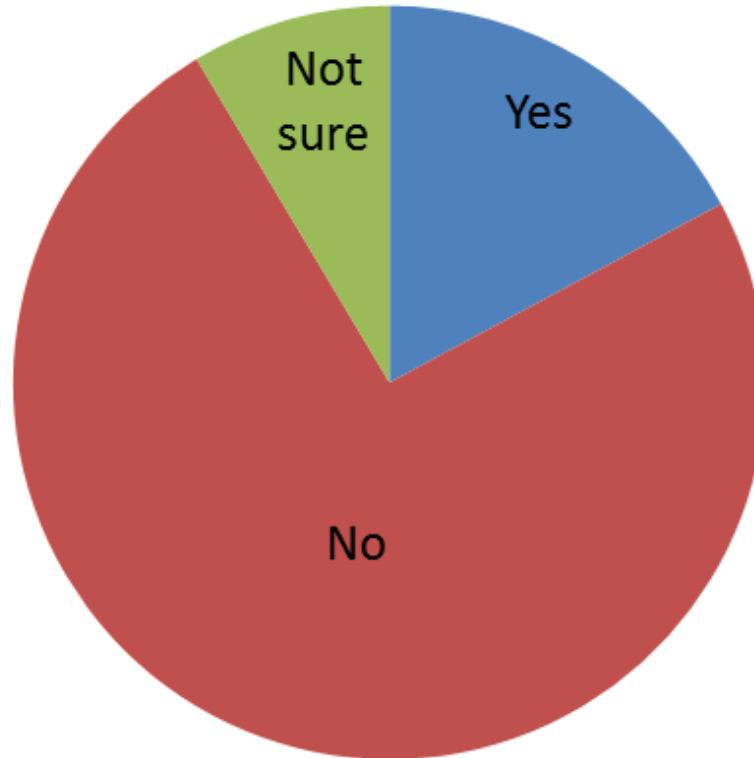
Topic of wastewater management in any form as a part of the curricula in schools

Academic Level: Wastewater in Universities' Curricula



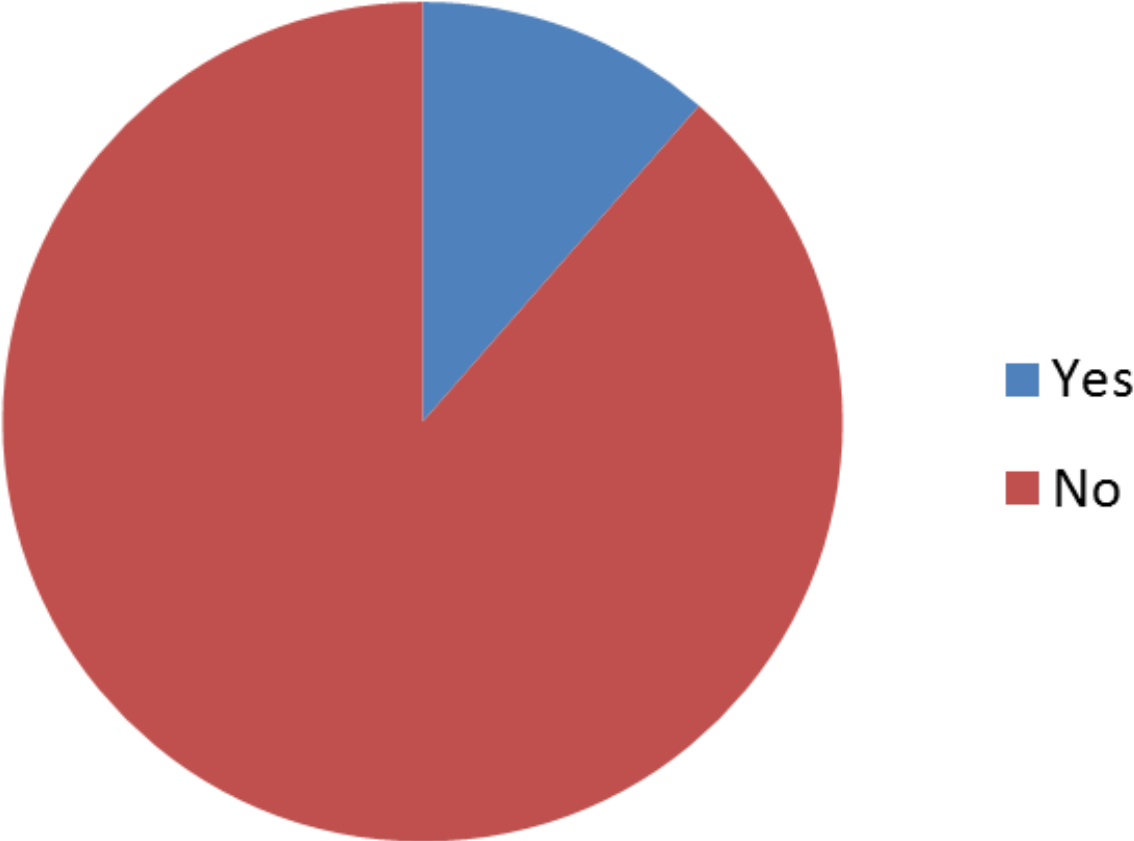
Topic of wastewater management as a part of the curricula in universities

Farmers/Water Users Associations



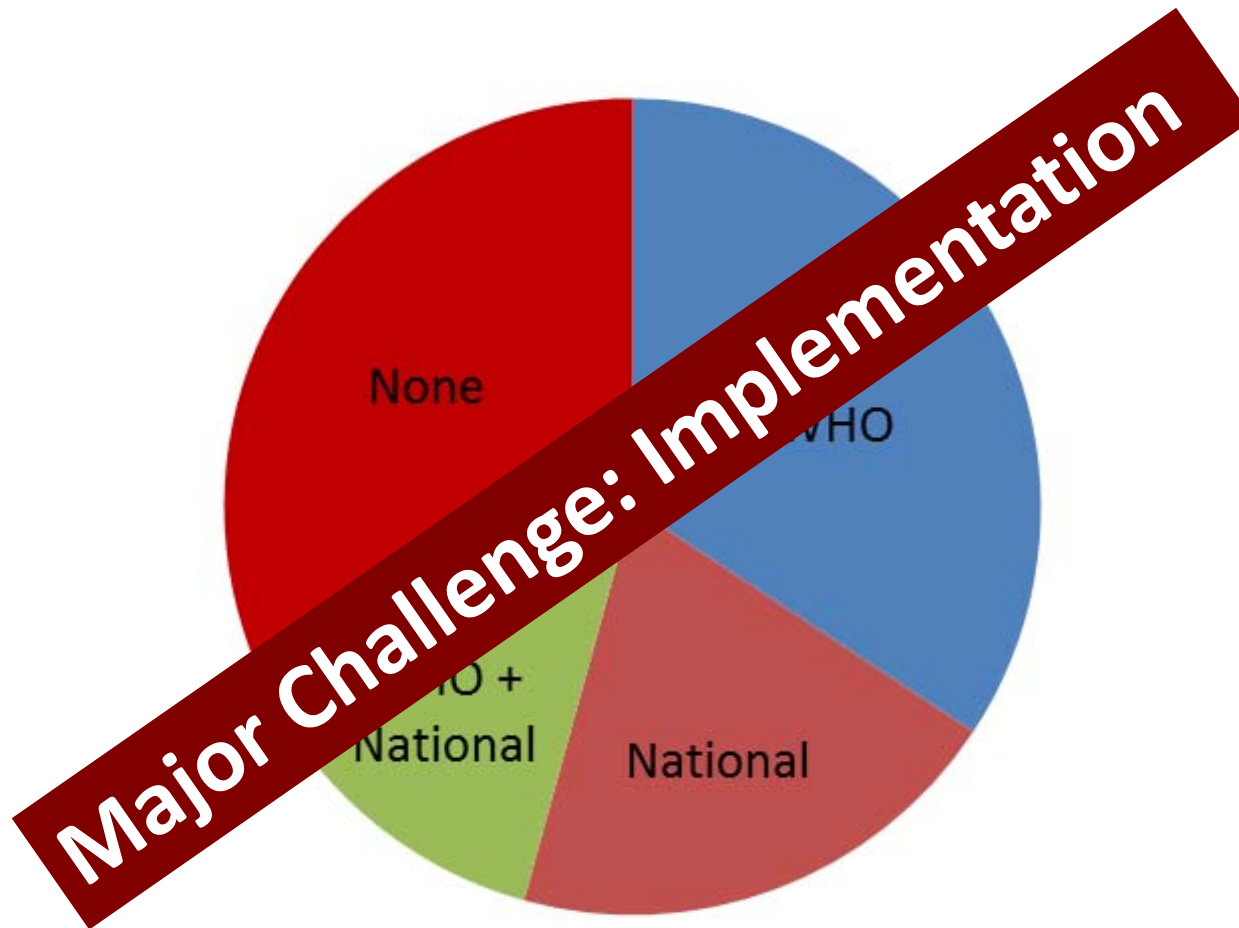
Farmers/water users associations dealing with local institutions for wastewater delivery

Farmers pay to Local Institutions for Wastewater



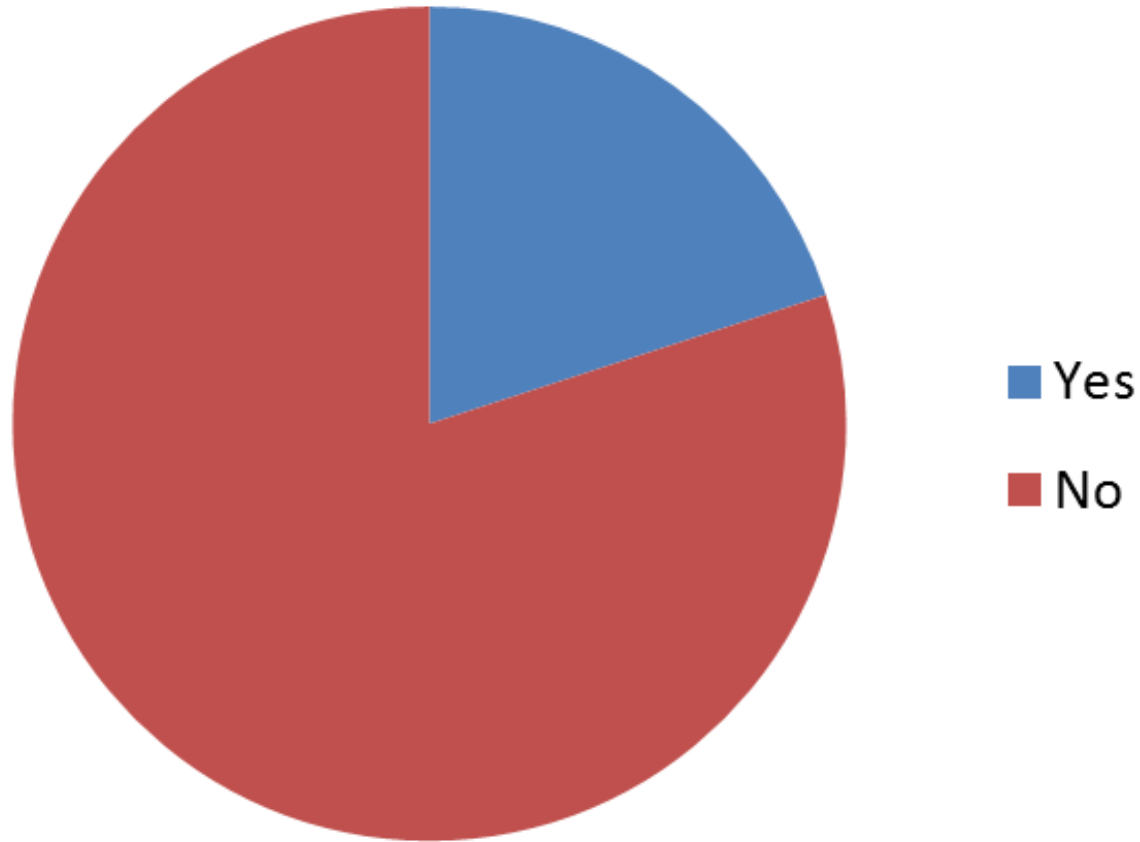
Yes: Botswana and South Africa (Cape Town)

Policy Level: Guidelines for Wastewater Use



Categories included WHO guidelines, national guidelines, and none

Regional Level: Collaboration across Countries



- In case of yes, collaboration through joint projects and participation in workshops
- Lake Victoria Environment Management Program (LVEMP)

Key Questions for Roundtable Discussions

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