Integrated Sanitation Approaches
Adapting Solutions to Rapid Urbanization

AWRA
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Donors

Private

Bilateral

Multilateral
Implementors

Non-Profit Organizations

For-Profit Organizations (Usually)

Engineering Firms (Usually For-Profit)
USAID and Wastewater Management: Evolution in Approach
1970’s–1980’s: Big Infrastructure

- Response to urgent public health issues

- **Big budget** infrastructure programs (e.g. Egypt)

- Success defined by **access** to infrastructure services

- Results: Transformative impact on urban conditions

- Challenges: **Needs outweigh budget**; operations and maintenance burden
1990’s–2000’s: Sector Strengthening

• Sustained growth
• Infrastructure with capacity building (e.g. Jordan)
• Success defined by institutional strength and reliability of service
• Results: Strong sector managers and emergence of utilities + infrastructure extension
• Challenges: Larger sector + more assets = greater costs
2010’s-present: Sustainable Systems

- Broad social and behavioral change to support sanitation
- Social marketing
- Private sector engagement to extend access.
- Success defined by broad service coverage options and cost recovery.
- Results: Adaptable spectrum of solutions to variable contexts; viable business models.
- Challenges: Increased complexity of programs.
Case study:
BE SECURE: Philippines
Be Secure Strategy: 3 prong approach

- **Technology and Infrastructure**
  - In Tacloban City: used lime stabilization technology

- **Supportive Environment**
  - In CDO, Ormoc, Cotabato, Tacloban and Sultan Kudarat, introduced variations in septage ordinances
  - Financing models, national grants, and PPP
  - Training for all sites via twinning, exposure trips, cross-cooperation and O&M training

- **Promotion**
  - Communication for public buy-in, flipcharts, Interpretive Center, videos, social media, events (e.g. Basilan,). Trained barangay captains.
Recognize that there are levels of sanitation

- Mindanao (Maguindanao and Basilan) still need to pursue basic sanitation (Toilets and septic tanks)

- Septage Management good first step prior to sewerage (Iloilo, CDO, and Zamboanga)

- Sewerage system and sewage treatment are gold standards for sanitation (Zamboanga City)
Strong Champions

• Mayor and Council of Ormoc passed Ordinance in record time

• Mayor and Vice Mayor of Cotabato City championed the program even in an election year

• New City Council of Tacloban worked overtime to learn the program and pass the ordinance

• Mayors of Iloilo, Zamboanga and Cagayan de Oro harmonized study teams and provided direction to TWGs

• GM of Isabela City Water District pursued the program successfully against political opposition

• Mayors of Zamboanga, Ormoc, Cotabato, Tacloban and Iloilo provided land at no cost

• DPWH committed to NSSMP funding
Your Water, Your Choice
National Government support is critical to local implementers’ success

- DPWH-NSSMP grant funds will help lower tariffs
- DILG Directives on Septage Management Ordinances helped provide legal mandate for programs
- DOH – Setting Standards for Septic Tanks helped write out ordinances
- DENR – Updated effluent standards helped prepare Terms of References
Public-Private Collaboration

• Iloilo City’s PPP initiatives
• CDO’s PPP Initiatives

• Service Contracting with private desludgers for Tacloban, CDO and Zamboanga

• Training collaboration between Be Secure sites / TWGs, private operators, NGOs, and universities.
The Right and Wrong Septic Tank

Septic tanks are often built the wrong way so they leach into the ground and affect water sources. In a bad El Niño year, the leaching can cause death due to water contamination.

RIGHT:
Cemented bottom, two-chambered, at least 25 meters away from the water pipe

Domestic septic tanks should be emptied every 3-5 years and the wastewater properly treated. Commercial septic tanks should be more frequently maintained.

WRONG:
Open bottom, single chambered, less than 25 meters from the water pipe
Case study: IUWASH: Indonesia
Kota Surakarta needs **Septage Management System**
Integrated & sustainable

unit *on-site* which is proper & registered

3 Years cycle for Scheduled desludging

Sludge is **treated** and **reused** in safe way

Sludge collection (by private sector)
Improved Septage Management
Service Chain is Needed

- Proper Septic tanks
- Correct Emptying
- Efficient Transport
- Good Treatment
- Reuse/disposal

- Improved latrines and access to emptying
- Professional Operator for Desludging & Managing Septage Treatment Plant
- Good emptying service & transport
- Convenient / accountable payment system
- All septage is safely disposed and treated
De-sludging Jakarta Video

https://www.youtube.com/watch?v=hUfdRphKDdo
Thank You!

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