

**8th World
Water Forum,
Regional Process**

***Institutional
and
Regulatory
Framework for Sanitation
and Wastewater
Management
in
MALAYSIA***



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National Water Services Commission**

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CHALLENGES IN SEWERAGE SECTOR



SEWERAGE CATCHMENT PLAN (SCP)



WAY FORWARD

1st Reform

2nd Reform

3rd Reform

Policy



MOH
(Public Health)

MOH
(Public Health)



KPKT
- Housing Policy
- Sanitation
- Sewerage Development



KTAK / KeTTHA
- Protect Water Resources
& Environment
- Green Technology

Regulatory



Local Council



JPP



SPAN

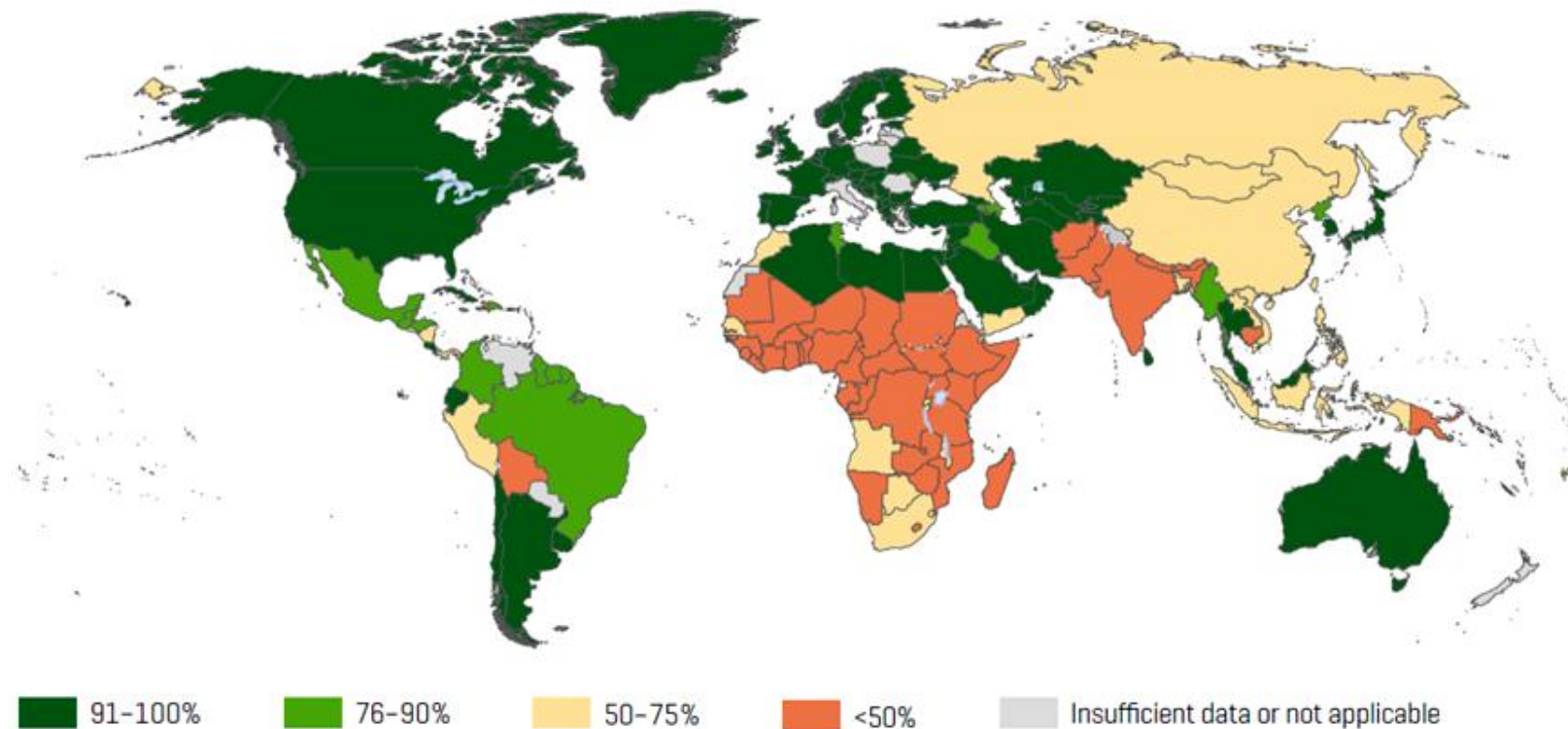
Services

Local Council



Certifying Agency (IWK)
Other Area Left Unattended

SL/FL/AP/ Certifying Agency

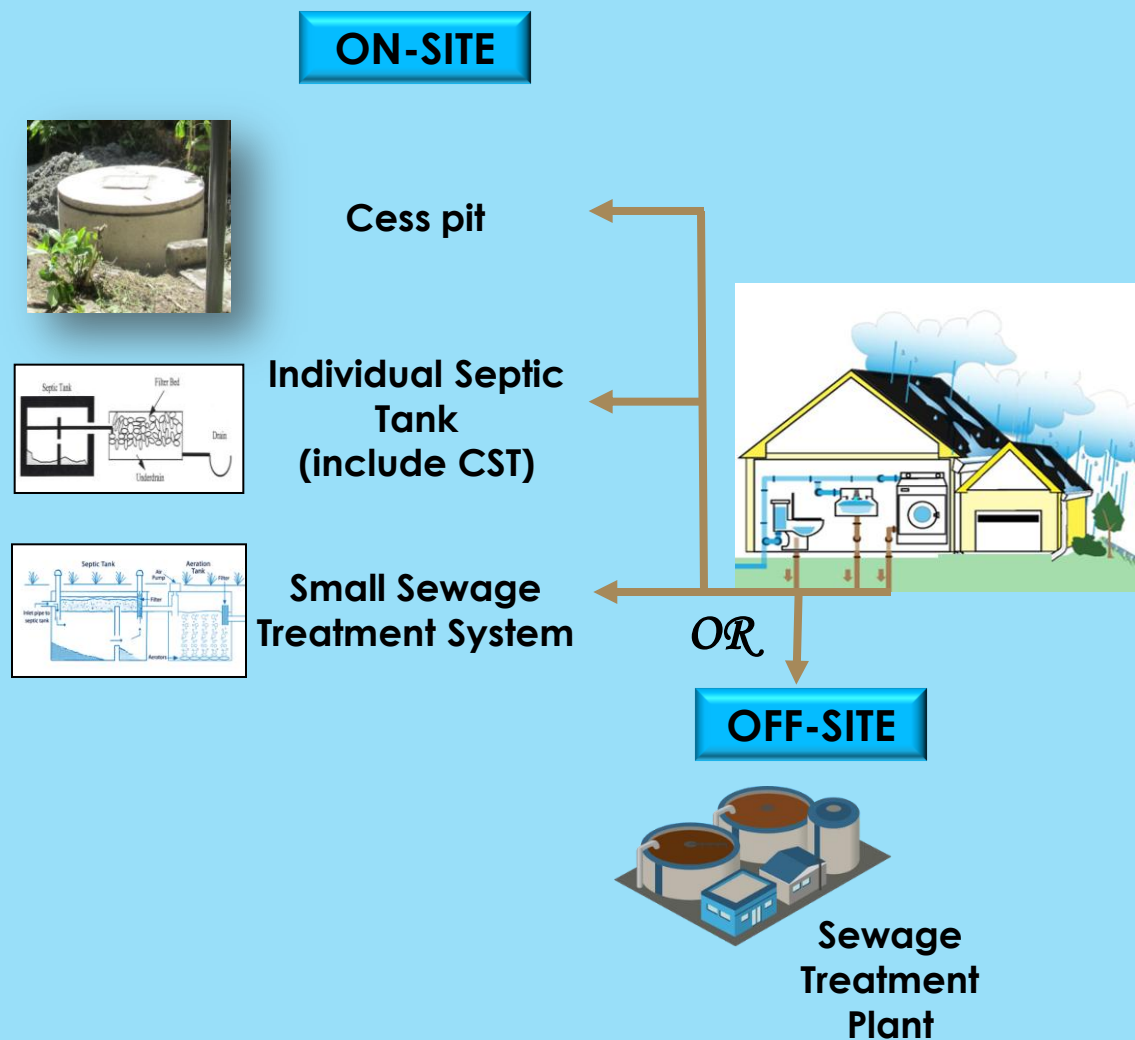





WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation

MALAYSIA

	Sanitation coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1990	2015	1990	2015	1990	2015
Improved facilities	90	96	83	96	86	96
Shared facilities	4	4	4	4	4	4
Other unimproved	5	0	5	0	6	0
Open defecation	1	0	8	0	4	0



SEWERAGE FACILITIES	QUANTITY	POPULATION EQUIVALENT (PE)
Public Sewage Treatment Plant	6,752	24,789,450
Private Sewage Treatment Plant	3,338	3,009,095
Communal Septic Tank	4,386	532,076
Individual Septic Tank	1,343,439	6,859,823
Traditional System	1,154,592	5,772,960
Network Pumping Station	1,117	n.a
Length of Sewer Network (km)	18,689	n.a

Source : Malaysia Water Industry Guide 2017

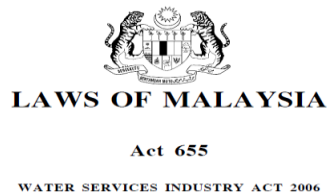
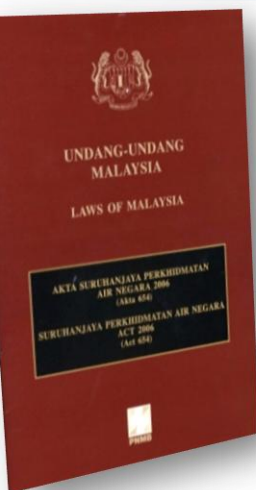
PERCENTILE OF PUBLIC SEWAGE TREATMENT SYSTEM IN MALAYSIA

NO	PE RANGE	NUMBER OF STP		POPULATION EQUIVALENT (PE)	
		NO.	%	NO.	%
1.	0 to 150	76	1	8,220	0
2.	151 to 500	1,712	26	583,586	2
3.	501 to 1,000	1,423	22	1,053,862	3
4.	1,000 to 2,500	1,441	22	2,357,496	7
5.	2,501 to 5,000	826	13	3,023,159	9
6.	5,001 to 10,000	513	8	3,749,914	12
7.	10,001 to 20,000	319	5	4,545,327	14
8.	20,000 and above	278	4	16,799,124	52
	TOTAL	6,588	100	32,120,688	100

Based on the PE range, **91%** of the overall STP are between **151 to 10,000 PE** whereas **9%** is more than **10,000 PE**

STP with capacity of **10,000 PE** and above represents approximately **70%** of the total cumulative PE while STP with capacity of **151-10,000 PE** only represents about **30%** of the total cumulative PE

DESLUDGING – PROVISION OF LAW AND COMPONENTS



Chapter 3

Duties and obligations applicable to licensees providing sewerage services

Septic tanks to be desludged

44. (1) The service licensee operating and maintaining a public sewerage system shall desludge the septic tanks in its sewerage services areas from time to time as may be prescribed.

(2) The service licensee who fails to comply with its obligations under subsection (1) commits an offence and shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit.

Section 44 (1) Obligation of service licensee to desludge septic tanks as prescribed

Section 65 (1) ...Service licensee or permit holder must be given access for the purpose of servicing and desludging

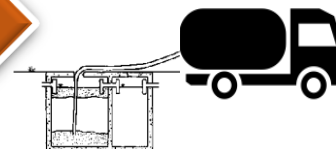


ST owner call
Service Licensee or
Permit Holder



Desludging

Service Licensee or
Permit Holder



Sludge Lagoon



Drying Beds



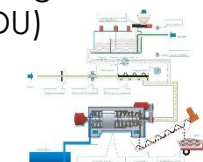
Trenching



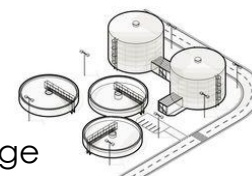
Geo-tube



Mechanical
Dewatering Unit
(MDU)



Centralised Sludge
Treatment Facility



Disposal
Site (Landfill)



BACKGROUND

In January 2008, Water Services Industry Act 2006 become enforceable

Responsibility of desludging individual septic tank falls under the owner

Prior to WSIA mandatory scheduled desludging was in place

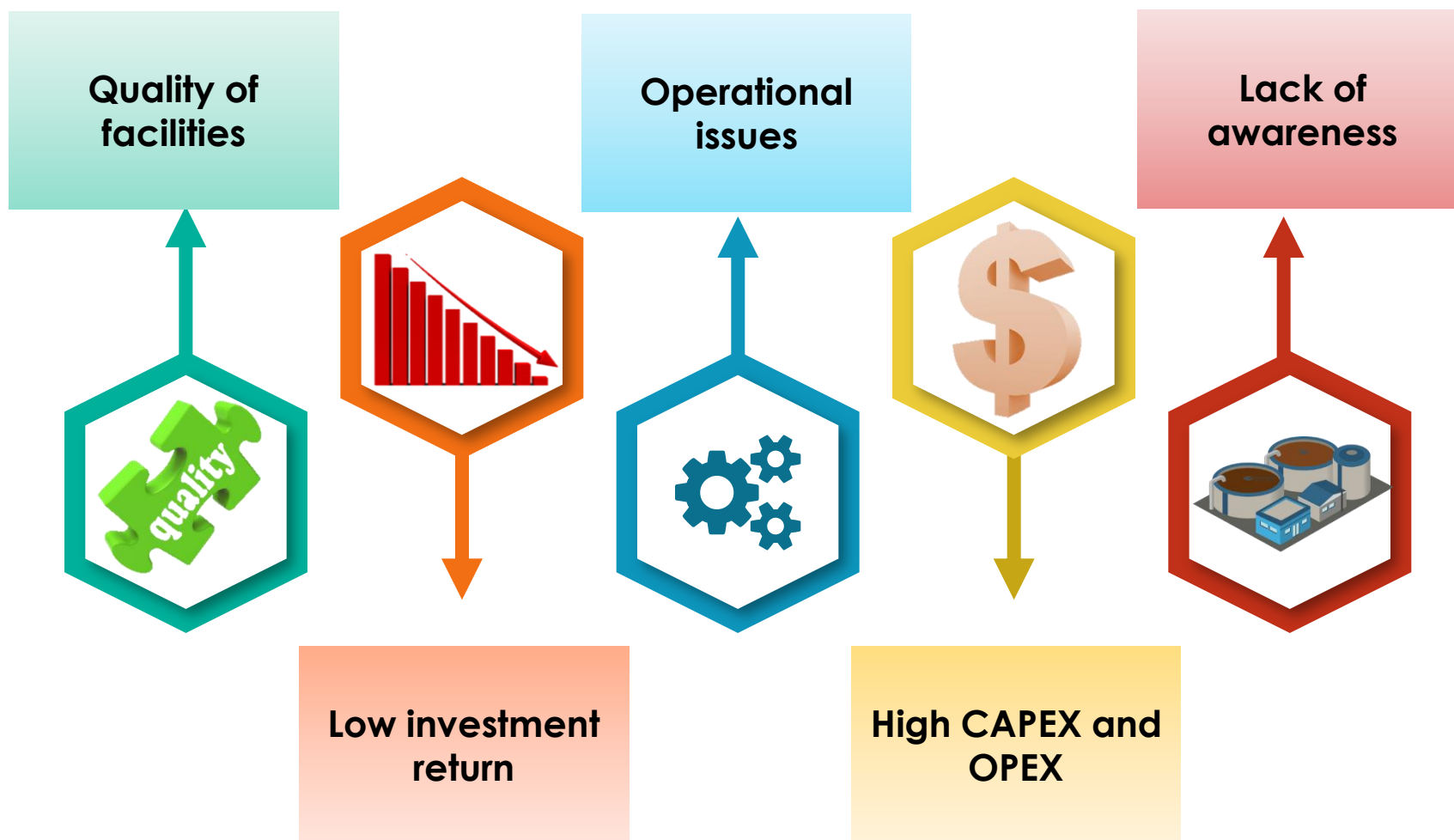
INDIVIDUAL SEPTIC TANK (IST) DESLUDGING TREND (2005 – 2017)

Before 2008, desludging contractors were more proactive in providing door to door notices offering desludging services

Analysis shows desludging cost is **RM 228/m³**

**Substantial
DECLINE**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
● Total Desludging Done	148,2	135,9	146,5	37,01	47,05	58,40	68,54	70,17	79,63	57,65	53,25	54,41	60,37



DRAFT PLANNING POLICY



STANDARDIZATION

To elevate and control the quality of prefabricated components produced by manufacturer

To ensure construction and installation is at desirable level to perform as required

To ensure the system would be able to provide treatment efficiency as intended



DESLUDGING

Review draft Water Services Industry (Desludging and Discharge Sewage Sludge) Rules

Implementation of Scheduled Desludging

The tariff is proposed to be spread over a 2 year for urban and 4 year for peri-urban and rural (monthly billing)

THANK YOU

It takes
CHANGE
to make
CHANGE

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