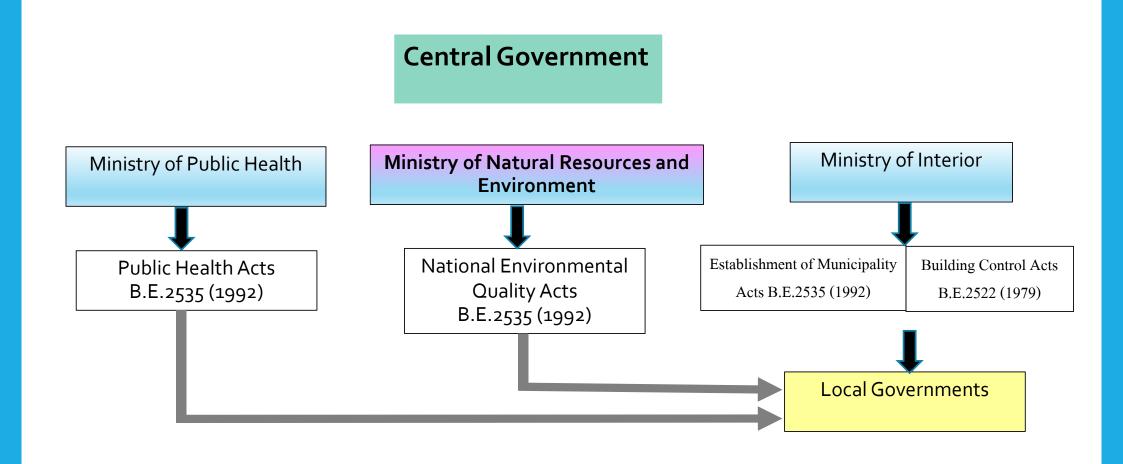
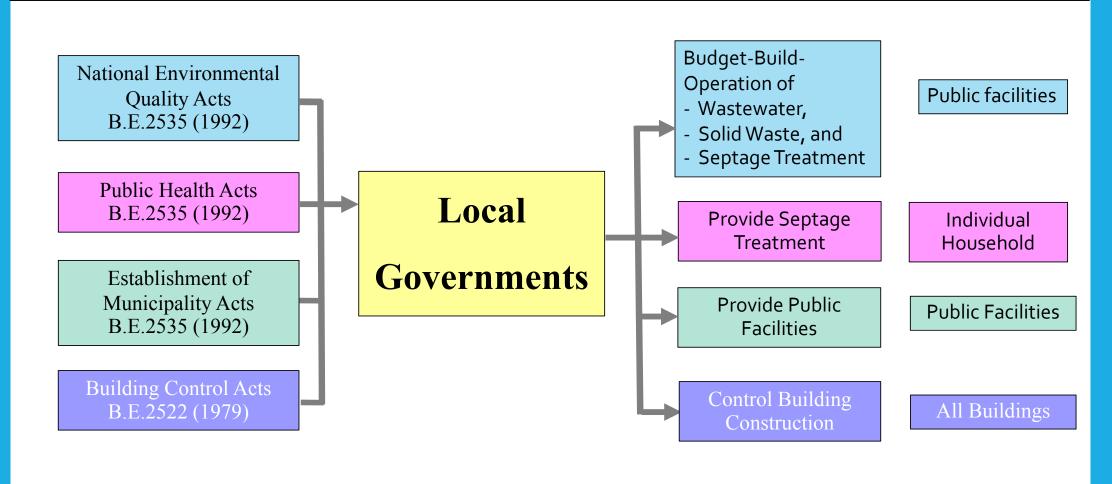
Good Practices of Septage Management in Thailand

Jiranun Hempoonsert
Pollution Control Department
Ministry of Natural Resources and Environment

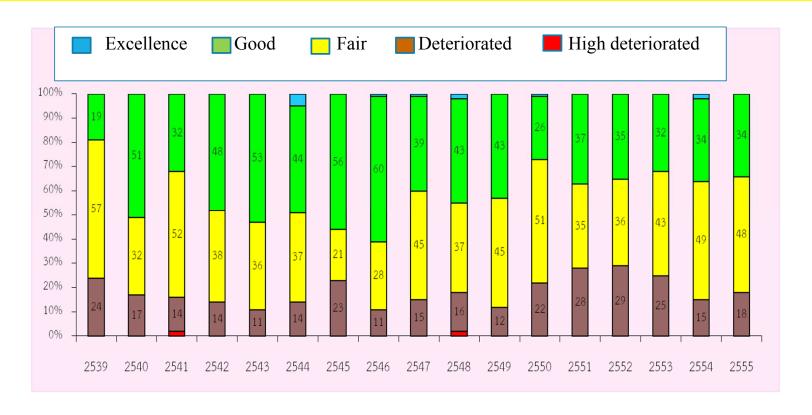
Background of Administration in Thailand



Local Administration Responsibility

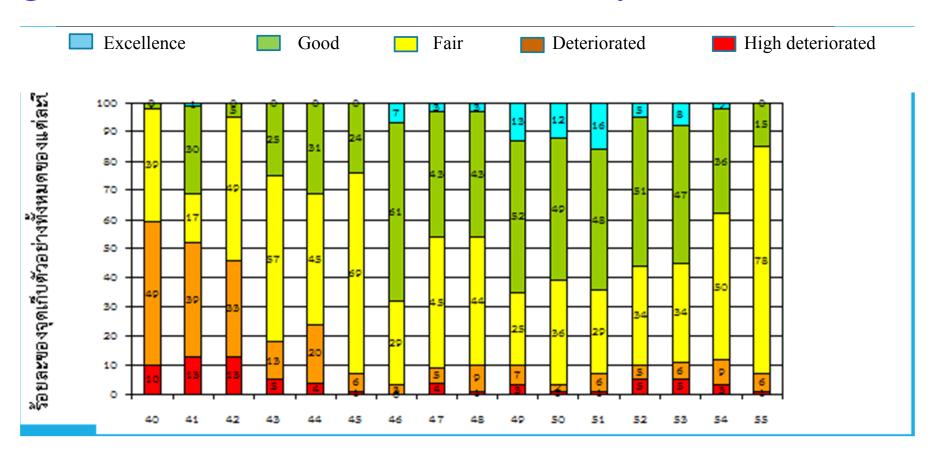


Background of Surface Water Quality Situation 1996 - 2012



Source: State of Thailand Pollution, 2013

Background of Coastal Marine Water Quality Situation 1997 - 2012



Wastewater Management Model in Thailand

Central Treatment Plant



Cluster (Community)
 Treatment Plant



On-site Treatment



Central Wastewater Treatment plants in Thailand

North

- <u>16 plants operating</u> subtotal 255,809 m³/D

Central

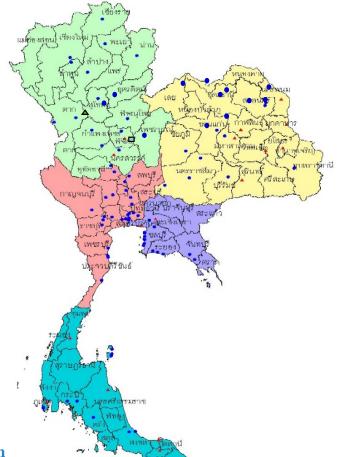
- 28 plants operatingsubtotal 1,384,600 m3/D
- 1 <u>plant under construction</u>
 1. จ.สมุทรปราการ (วว.)(AS) 525,000 m³/D

 Total 1,909,900 m3/D

Northeast

- 18 plants operatingsubtotal 353,466 m3/D
- 1 plant under construction
 1. пи. инэ w и и (па.) (SP) 8,600 m3/D

 Total 362,066 m3/D



East

• 16 plants operating
Total 297,400 m3/D

South

- 16 plants operating subtotal 346,750 m³/D
- 3 plants under construction

กม.ชุมพร (ฮธ.)(SP) 12,000 m³/D
 กม.ปัตตานี (ฮธ.)(SP) 27,000m³/D
 Total 375,750 m³/D

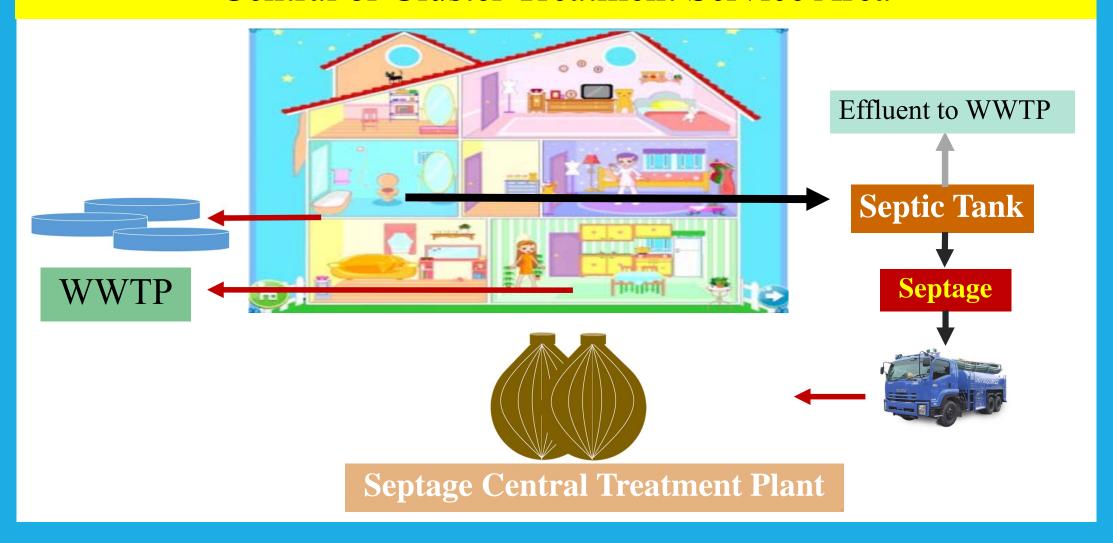
Sum. :

Operating 96 plants
Under construction 4 plants
Suspended 1 Plants
Total 101 Plants

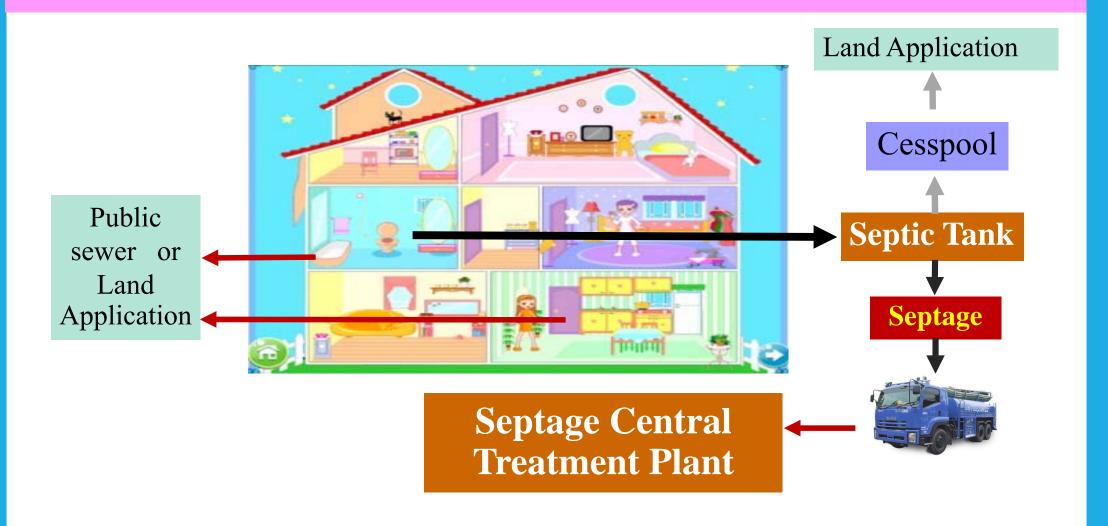


Figure of Wastewater Treatment Plants in Thailand (as of 2016)

Central or Cluster Treatment Service Area



Rural Area



Central Septage Treatment: Nonthaburi Plant









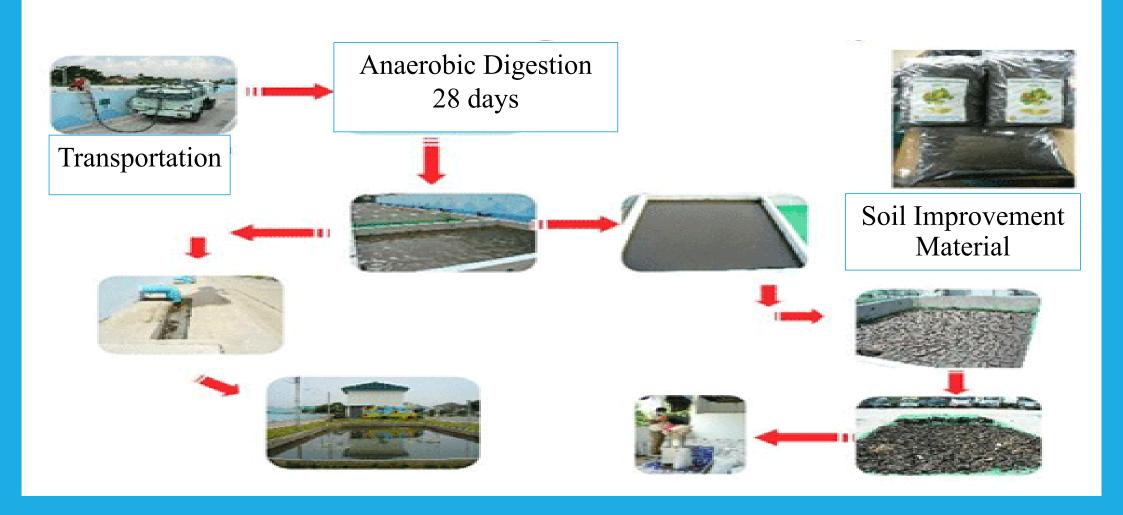
Facilities in Treatment Plant



http://www.behn.go.th/upload/detail_dirt.pdf

- 1. Office
- 2. Pond
- 3. Digestion Tank
- 4. Sand Drying Beds
- 5. Heavy MechanicalEquipment Store
- 6. Soil ImprovementMaterial Store
- 7. Equipment Store
- 8. Parking Lots

Septage Treatment Process (Nonthaburi Plant)



Transportation & Pumping



Anaerobic Digestion





Sludge Drying & Soil Improvement Material



- Concrete tank 13 cu.m
- Slope 3%
- PVC Ø 6" piping distribution



Liquid Fertilizer



Drainage from Sand Drying Bed



Storage Pond for Liquid Fertilizer Process Thank you for your attention