

Sludge Utilization as a Construction Material & Fertilizer

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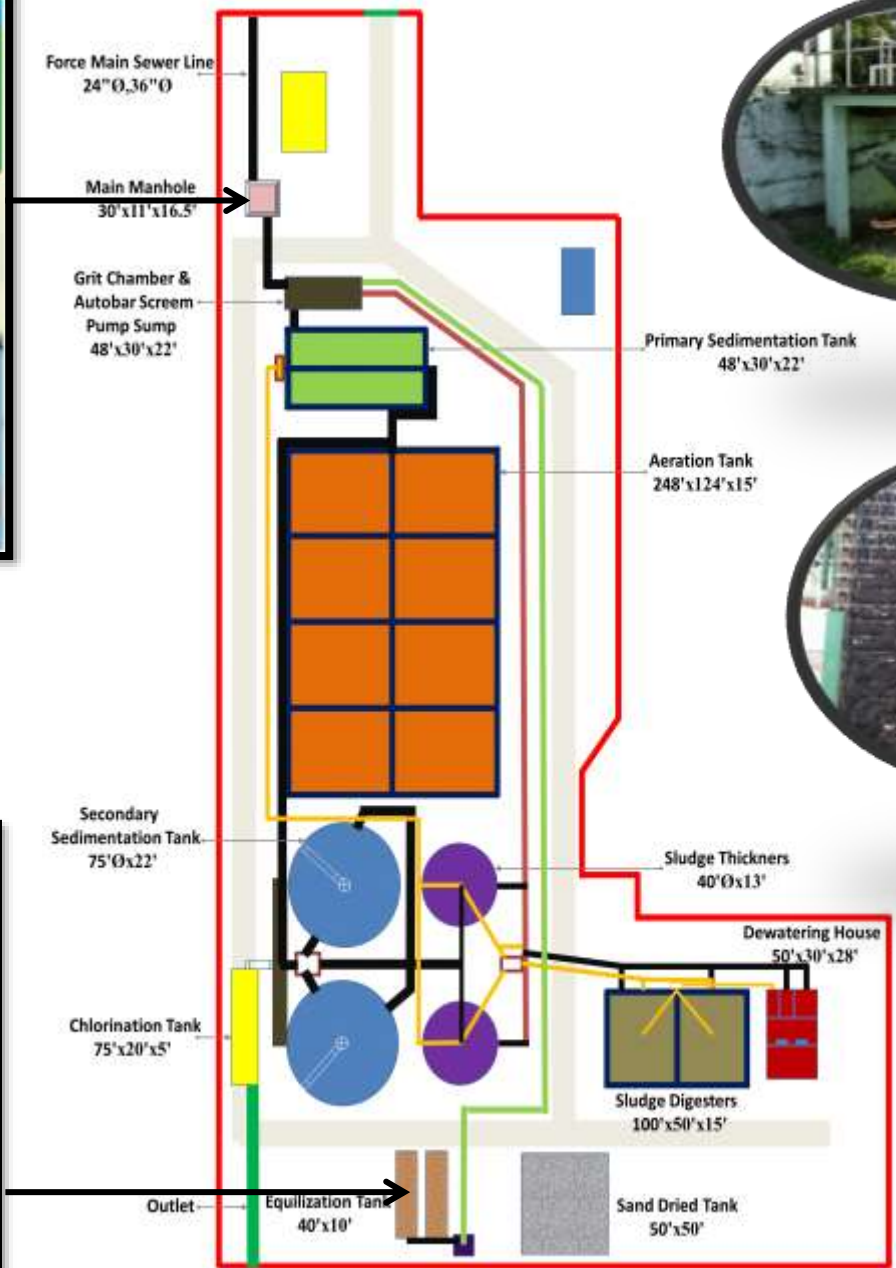
- **Wastewater Treatment Plant history in Yangon**
- **Production process of sludge in treatment process**
- **Reuse of sludge as a Fertilizer**
- **Can be used in combination With other technology for sludge**

Wastewater Treatment Plant history in Yangon



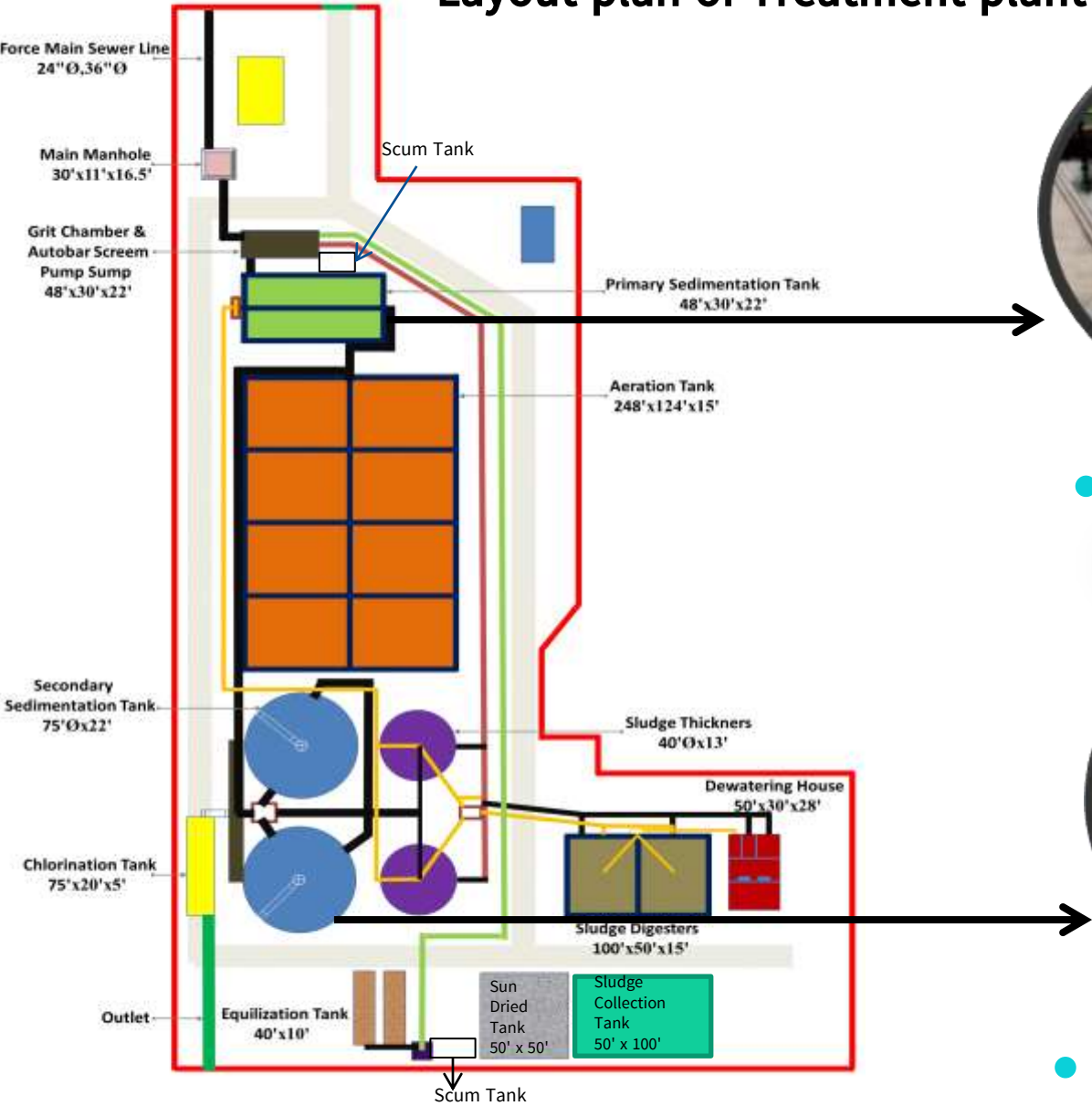
Year of Establishment	- 12 th April 2003
Year of Completion	- 17 th January 2005
Year of Opening ceremony	- 22 nd December 2006
Volume of Daily Treatable sewage	- 3.25MGD
Developer	- Myanmar Engineers of Yangon City Development Committee
Cost of Project	- US\$ 0.96 Millions (Myanmar Kyat -2065.7 Millions)
Areas of Plant	- 5.56 Acres

Production process of sludge in treatment process



Production process of sludge in treatment process

Layout plan of Treatment plant



• Primary Sedimentation Tank



• Secondary Sedimentation Tank

Production process of sludge in treatment process

Sundried Tank



Sludge Collecting Tank



sludge

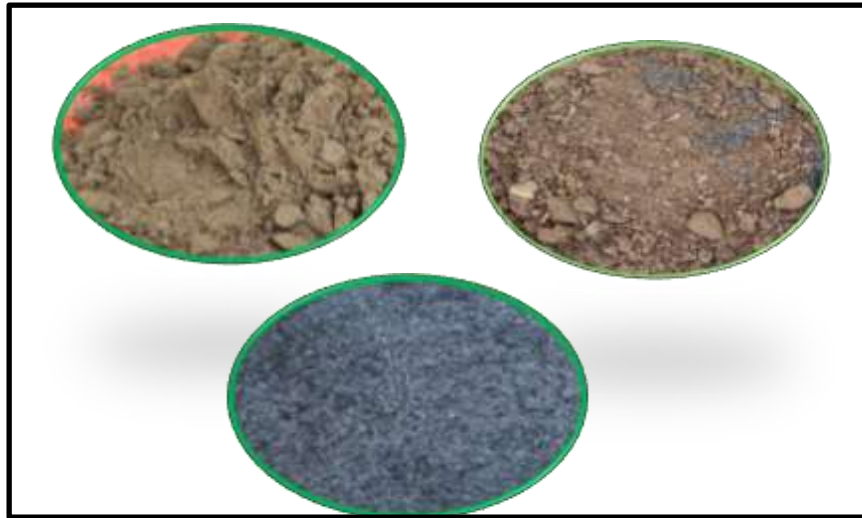
Reuse of sludge as a Fertilizer



Sludge (Human Waste)



Use as a fertilizer



Sand , Sludge & Rice Husk ash



Reuse of sludge as a Fertilizer



Sludge Bags



Use as Fertilizer





Ingredients : This fertilizer is a mixture of natural compost, sand and chaff ash in equal proportions with full of cold nutrients.
(Weight – 1 kg)

How to use – 150 gram – 200 gram (2 to 3 tablespoons) can be spread around the tree root for one use

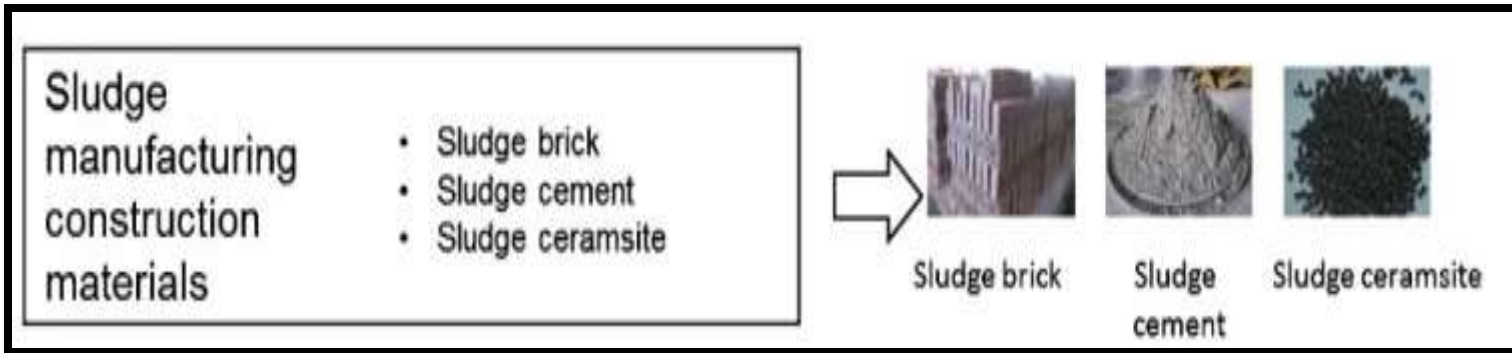
Can be used in combination With other technology for sludge



Incinerator

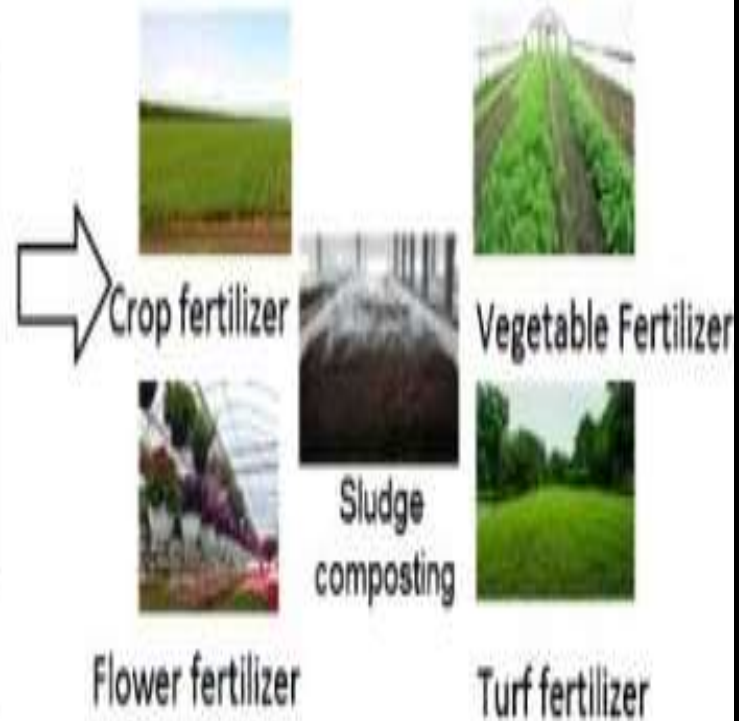


Use as Bio-char from Sewage Sludge



Sludge composting

- Accelerating plant growth
- Improving moisture retention
- Increasing organic matter in the soil
- Improving erosion control



Can be used in combination With other technology for sludge



HANEDA Airport in Japan



KANSAI Airport in Japan



Sustainable Development of Sludge Management

1. Managing the sludge from wastewater treatment plant
2. Knowledge sharing for sludge reuse as a fertilizer
3. Managing the sludge to combine with other technology
4. Knowledge sharing about sludge that can reuse as landfill after disinfection the sludge
5. Coordination with technician / researcher to apply sludge management

Sludge Exhibition





Question and Answer