Presentation on the Result of Pilot Project
In Batticalore City, Sri Lanka

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Asahi Craft Engineer
1. Overview of Project

(1) Objective of Pilot Project

Improvement of sanitation conditions in Batticalore city, by improving the function of the sewage facility of the City and provide instructions on operations and maintenance of the facility

(2) Project Activities

- Determination of the current conditions of the facility
- Design for improvement of functions
- Improvement of the facility
- Development of operations and maintenance manual
Project location

[Map of Sri Lanka with the Eastern Province highlighted.]
Aerial photographic image of the project site
処理施設平断面図
<table>
<thead>
<tr>
<th>Receiving pond</th>
<th>Reaction pond</th>
<th>Treated water pond</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Receiving pond" /></td>
<td><img src="image2" alt="Reaction pond" /></td>
<td><img src="image3" alt="Treated water pond" /></td>
</tr>
<tr>
<td><img src="image4" alt="Receiving pond" /></td>
<td><img src="image5" alt="Reaction pond" /></td>
<td><img src="image6" alt="Treated water pond" /></td>
</tr>
<tr>
<td><img src="image7" alt="Receiving pond" /></td>
<td><img src="image8" alt="Reaction pond" /></td>
<td><img src="image9" alt="Treated water pond" /></td>
</tr>
</tbody>
</table>
Flow of project activity

<conditions of the site before piloting>

<activities>

<improved conditions>
排水処理・浄化槽
汚水用バイオ製剤
アクアリフト® 900LN・900LN-S

撤くだけで、ドブ川や排水口、排水材、排水筒、側溝、生ゴミ置場、排水処理、浄化槽、汲み取り式トイレなどのヘドロや汚水を分解し悪臭を改善！ 原因が定着すれば、効果は長期間持続し、経済的です。

排水・汚水処理、浄化槽の性能向上・臭気改善の即効性の促進剤です。
ドブ川や排水口、排水材、排水筒、側溝、生ゴミ置場、汲み取り式トイレなどの悪臭を改善します。
アクアリフト1800Pでは対応できない狭い場所に使用します。
散布すると排水や汚水の中の養分を対急効に増殖して定着するイメージで散布してください。

散布方法

水に溶かして散布する場合には、現場の水を使用して濃い目に溶かします。

粉体はすぐに底に沈殿するので、かき混ぜながら散布します。

ピシャクを使って、水面全面にまんべんなく散布します。

※粉体のアクアリフトをそのまま散布する場合には、なるべく水面近くで粉体が飛び散らないように散布します。
アクアリフト®1000PN・1000PN-S

浄化槽・排水処理施設に設置するだけで浄化能力を大幅に向上し、悪臭も改善します。

アクアリフトは、排水処理施設・浄化槽内の活性汚泥と共存して浄化槽内で徐々に増殖し、浄化能力を向上し、その後の処理を軽減します。
悪臭を放っている浄化槽や、負荷オーバーの排水処理施設・浄化槽でも期待することなく効果を発揮します。
残さが少ないので、バキュームなどにかかる負担が軽減できます。
使い方も、原水槽に設置しておき、瓶詰めするだけの簡単にです。
排水や赤水の中での倉分を有機物に増殖して残るイメージで設置してください。長期持続性です。

＜アミ袋に入れたアクアリフトの設置方法＞

1. 岸辺に木杭を打ち込み、アミ袋のヒモをくくりつけ固定します。
2. ナイロン袋の強いヒモを使って吊下げます。
3. アミ袋に入れたアクアリフトを投入し、設置します。
   X槽・Y槽の流入側には槽の途中にぶら下がる位置に。
   Y槽の下流側・Z槽には底に着くあたりに設置してください。

※底泥が少ない所などはバックのまま投げ入れます。
Methods of bio-treatment using ‘Aqua-lift’

Put ‘aqualift’ bag type in nets

Throw into pond

Tie the end of the net to a stick to secure its location

Dissolve powder type ‘aqualift’ in water

Spray the aqualift-water evenly across water surface
Receiving pond（conditions before piloting）

① From the accumulated sludge conditions, it was decided that it would be necessary to dredge the receiving pond

② The pipe between the receiving pond and reaction pond appeared to be completely clogged

③ The upper curved part of the pipe appeared to be unnecessary for this facility, judging from the amount of receiving sewage (which is low in quantity).

④ The conditions were not yet completely ready to implement the bio formulation, but after some level of dredging was made, the mission decided to proceed to bio implementation.
① The mission decided to cut into the upper part of the pond wall dividing the receiving pond and reaction pond in order to allow water flow
→ the sew water level went down to the level possible for dredging
→ the clogged pipe became visible

② Solution to the clogged pipe
→ put high pressure water from the vacuum truck through the pipe

③ Cut the pipes
→ secured a flow route to the reaction pond
   In case the pipe should clog again, installed an additional ‘bypass’ pipe

④ Used ½ of the prepared amount of bio-treatment this time
   Should add more by looking at the degrading conditions
Reaction pond (conditions before piloting)

① Algae in the pond; a sign that treatment is not going well

② The curved top part of the pipe was considered unrequired (too high)

③ Waterweeds in the pond; sludge appears to be tangled with the weeds
Reaction pond (activities)

① Sprayed the bio-treatment product  
   → Needs regular monitoring

② Cut the upper curved pipe  
   Recommended to attach T-shape pipe

③ Removed grass and weeds  
   → The shape of the ponds became clear
① Algae; a sign that treatment is not going well

② Decided that the upper part of pipe was not necessary
Treated water pond (activity)

① Sprayed bio-treatment products
   → needs regular monitoring

② Cut off of the pipe
   Recommended to place a T-shape pipe at the end
Consultation at the site and Municipal office

Consultation

Meetings at the municipality
Development of operations manual

1. Development of operations manual

1. Contents of operation manual

1.1. Purpose of the operation manual

1.2. Operation procedure

2. Procedures of operation manual

2.1. Procedure

2.2. Diagrams

図1 フローシート
Recent photographs of the facility

Before bio treatment
2012.04.24撮影

After bio treatment
2012.11.04撮影