THIRD PARTY MONITORING MECHANISM TO ASSESS THE IMPACT OF UTILIZATION OF FUNDS UNDER SPA IN MANIPUR WATER SUPPLY PROJECTS

Terms and Conditions for Evaluation

- To verify whether the works undertaken are executed as per approved Estimates/Plan of Action/Time Frame
- To verify the physical progress is commensurate with the funds released
- To verify and check whether work has been executed as per approved specifications and Design
- To verify and check whether materials used in the work conform to prescribed BIS Standards, Building Codes
- To verify whether work has been executed within the Estimated Cost and as per the implementation schedule laid down in the DPR
- To examine reasons for any deviations
Projects taken up under SPA from 2006-07 to 2010-11

List of Projects

<table>
<thead>
<tr>
<th>SI</th>
<th>Name of Project</th>
<th>Project Cost</th>
<th>Amount Released</th>
<th>Amount Utilised</th>
<th>%age Utilised</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upgradation of Water Supply Distribution Network for Imphal City i/c Greater Imphal area</td>
<td>37.00</td>
<td>37.00</td>
<td>37.00</td>
<td>100</td>
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<tr>
<td>2</td>
<td>Upgradation of Distribution System of Churachandpur Water Supply Scheme Zone – I, II, III</td>
<td>10.00</td>
<td>10.00</td>
<td>9.56</td>
<td>95.60</td>
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<tr>
<td>3</td>
<td>Upgradation of Distribution Network and replacement of raw water main for Ukhrul District HQ and surrounding villages</td>
<td>5.00</td>
<td>5.00</td>
<td>4.98</td>
<td>99.60</td>
</tr>
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</table>
## List of Projects

<table>
<thead>
<tr>
<th>Sl</th>
<th>Name of Project</th>
<th>Project Cost</th>
<th>Amount Released</th>
<th>Amount Utilised</th>
<th>%age Utilised</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>Upgradation of Distribution Pipe network and improvement of treatment sites for Water Supply Schemes at Senapati District HQ, Ph – I</td>
<td>3.00</td>
<td>3.00</td>
<td>2.80</td>
<td>93.33</td>
</tr>
<tr>
<td>5</td>
<td>Upgradation of Water Supply Scheme at Old Thumbuthong and Yonglan Leirak Areas, Imphal</td>
<td>2.00</td>
<td>2.00</td>
<td>1.99</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Distribution of pipe network for Imphal – Old Thumbuthong, Babupara OverHead Tank, Pipeline system at Yonglan Leirak at Imphal (Babupara only)</td>
<td>1.00</td>
<td>1.00</td>
<td>1.04</td>
<td>100</td>
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<tr>
<td>7</td>
<td>Upgradation of Chandel HQ Water Supply Scheme and extension of feeder line to the surrounding areas</td>
<td>4.00</td>
<td>4.00</td>
<td>3.80</td>
<td>95</td>
</tr>
<tr>
<td>8</td>
<td>Waithoupat Water Supply Scheme, Thoubal District (Additional Component Phase – I)</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>Water Supply Scheme for Kwakeithel Thiyam Leikai</td>
<td>4.64</td>
<td>4.64</td>
<td>4.62</td>
<td>99.60</td>
</tr>
<tr>
<td>10</td>
<td>Water Treatment Plant at Singjamei Ward No. 17</td>
<td>6.89</td>
<td>6.89</td>
<td>6.80</td>
<td>98.70</td>
</tr>
</tbody>
</table>
List of Projects

<table>
<thead>
<tr>
<th>Sl</th>
<th>Name of Project</th>
<th>Project Cost</th>
<th>Amount Released</th>
<th>Amount Utilised</th>
<th>%age Utilised</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Sewerage Project, Phase – I for Imphal City (2010-11)</td>
<td>68.50 (106)</td>
<td></td>
<td>51.72</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Water Supply Scheme to be implemented in various district. (Installation of water pipes, overhead tanks)</td>
<td>13.75</td>
<td>13.75</td>
<td>13.75</td>
<td>100</td>
</tr>
</tbody>
</table>

Upgradation of Water Supply Distribution Network for Imphal city including Greater Imphal Area

To improve the distribution system and to meet the further demand upto 2050 a.d. PHE Department has prepared the following two projects

1. **Upgradation of Water Supply Distribution Network for Imphal city including Greater Imphal Area (Phase I)**  
   - EXCLUSIVELY FOR PIPELINE Rs. 99.99 crores

2. **Upgradation of Water Supply Distribution Network for Imphal city including Greater Imphal Area (Phase II)**  
   - EXCLUSIVELY FOR DISTRIBUTION AND OVERHEAD TANKS Rs. 62.37 crores

Total Rs. 162.36 crores
During the year 2006-07, an amount of Rs. 17 crore was provided under SPA for upgradation of a part of the distribution network as Phase I, Part I of the Project.

Again during 2007-08, an amount of Rs. 20 crore was provided under SPA for upgradation of a part of the distribution network as Phase I, Part II of the Project.

It consists of two parts
  a) Phase I, Part I costing Rs. 17 crores, and
  b) Phase I, Part II costing Rs. 20 crores

Phase I, Part I is implemented by Water Supply Maintenance Division No. I - Works costing Rs. 17 crores

Phase I, Part II is implemented by 3 (Three) Divisions i.e.
  o Water Supply Maintenance Division No. I – Works costing Rs. 12.64 crores,
  o Water Supply Maintenance Division No. II – Works costing Rs. 5.95 crores, and
  o Project Construction Division – Works costing Rs. 1.41 crores
### Upgradation of Water Supply Distribution Network for Imphal city including Greater Imphal Area Phase – I, Part – I and Phase-I, Part-II

- **Project Cost**  
  - 17.00 Crore (Ph-I, Pt-I)  
  - 20.00 Crore (Ph-I, Pt-II)
- **Year of Sanction**  
  - October 2006 (Ph-I, Pt-I)  
  - July 2007 (Ph-I, Pt-II)
- **Time Frame**  
  - 1 (One) Year
- **Actual Time Taken**  
  - Phase-I, Part-I: 31/03/2008 (Two years)
  - Phase-I, Part-II: 31/03/2009 (except Iroisemba reservoir)
- **Expenditure Incurred**  
  - 37.00 Crore
- **Date of Submission of 100 % UC**  
  - Phase-I, Part-I: 31/03/2008  
  - Phase-I, Part-II: Yet to be submitted

### Scope of the Work

- **Phase-I, Part-I**
  - Laying of 150, 200, 300, 350, 400, 450 and 500 mm dia DI K7 Pipes
  - Procurement of Water Tankers 4 nos
  - Details of work done and pipes laid are shown in Annexure I of the Report.
Scope of the Work

- Phase-I, Part-II
- Works under Water Supply Maintenance Division No. I
  - Laying of DI K7 pipes 100, 150, 200, 300, 400 mm dia
  - Renovation of Chingtham Leikai Zonal Reservoir
  - Construction of zonal reservoirs at North AOC, Inter State Bus Terminus and Iroisemba
  - Upgradation of Khuman Lampak Water Supply Treatment Plant
  - Details of work done and pipes laid are shown in Annexure II of the Report.

Scope of the Work

- Phase-I, Part-II
- Works under Water Supply Maintenance Division No. II
  - Laying of DI K7 pipes 100, 150, 200, 300, 350 mm dia
  - Rehabilitation of Treatment KIOSK
  - Construction of zonal reservoirs at Ramania Kshetrigao, and Khongman
  - Details of work done and pipes laid are shown in Annexure III of the Report.
Scope of the Work

- **Phase-I, Part-II**

- **Works under Project Construction Division**
  
  - Laying of DI K7 pipes 150 mm dia
    Chingakham Leirak
    Sougaijam Leirak
    Yumnam Leikai Leirak
    Ngakrabam Leirak
    Sapam Leirak
  
  - Laying of DI K7 pipes 200 mm dia
    Janmasthan to Singjamei Market
    Heirangoithong to Manipur College
    Chigtham Leikai to NH 39

FINDINGS

- 1710 m of 500 mm DI pipes costing Rs. 71.34 lakhs could not be procured as the Agency Charge sanctioned by GOI is only 6.5% whereas the FD has deducted 11.75%. There is a difference of 5.25% amounting to Rs. 79.35 Lakhs. This is in respect of Phase-I, Part-I.

- No major deviations are seen in respect of Phase-I, Part-II. The length of pipes laid at different places are shown in the last column of the Annexures II, III, IV. However, some difference in intra-zonal quantity of pipes laid are found, the total quantity of pipes as per DPR remaining more or less the same.
SUGGESTIONS

- Deviations during execution of the scheme
- Attention to preparation of Detailed Estimate
- No sufficient time for conducting survey, investigation and design to avoid deviations and extra items
- MAS and TEO
- Realisation of revenues and taxes for proper maintenance

2. Upgradation of Distribution System of Churachandpur Water Supply Scheme Zone – I, II, III

- Project Cost: 10.00 Crore
- Year of Sanction: 2007
- Time Frame: 1 (One) Year
- Actual Time Taken: 2 (Two) Years (March 2009)
- Expenditure Incurred: 9.56 Crore
- Date of Submission of 100 % UC: Not yet submitted
### Brief

- Augmentation of the existing Water Supply Scheme for Churachandpur Town with treatment plant situated at Bungmual village with a treatment capacity of 3.15 MLD was taken up by tapping raw water from 3 (three) different sources namely:
  - (a) Koite and Loklao river source (Zone-I) with treatment plant at Mongjang village,
  - (b) Lanva River source (Zone-II) with treatment plant at Bungmual village and
  - (c) Khuga River source (Zone-III) with treatment plant at Buallian hillock near Khuga Dam.
- The 3(three) projects were taken up under NLCPR.

### Scope of the Work

- Construction of 12 (twelve) Nos. of Zonal Reservoirs to build up water pressure at different locations of the town.
- Laying of pipelines.
## DETAILS OF ZONAL RESERVOIRS AND PIPES

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Zonal Reservoir</th>
<th>D.I. pipe (in Rm)</th>
<th>G.I. pipe (in Rm)</th>
<th>Area covered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>150 mm</td>
<td>100 mm</td>
<td>80 mm</td>
</tr>
<tr>
<td>1.</td>
<td>Tuibuong community hall</td>
<td>400</td>
<td>1800</td>
<td>1000</td>
</tr>
<tr>
<td>2.</td>
<td>Khajang Veng, Bijang</td>
<td>-</td>
<td>2000</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>Higher Secondary School, Upper Lamka</td>
<td>600</td>
<td>600</td>
<td>1000</td>
</tr>
<tr>
<td>4.</td>
<td>Tangnuam</td>
<td>2300</td>
<td>900</td>
<td>500</td>
</tr>
<tr>
<td>5.</td>
<td>LRRC, Zoar Veng, Bungmual</td>
<td>1000</td>
<td>-</td>
<td>1600</td>
</tr>
<tr>
<td>6.</td>
<td>PHED compound, Headquarter Veng</td>
<td>500</td>
<td>100</td>
<td>2800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 mm</td>
<td>100 mm</td>
<td>80 mm</td>
</tr>
<tr>
<td>7.</td>
<td>Phallian</td>
<td>1000</td>
<td>1500</td>
<td>1000</td>
</tr>
<tr>
<td>8.</td>
<td>Thingkangphai</td>
<td>1080</td>
<td>-</td>
<td>900</td>
</tr>
<tr>
<td>9.</td>
<td>Rengkai</td>
<td>-</td>
<td>-</td>
<td>1000</td>
</tr>
<tr>
<td>10.</td>
<td>Don Bosco, Salem Veng</td>
<td>450</td>
<td>1200</td>
<td>800</td>
</tr>
<tr>
<td>11.</td>
<td>Lamka College, New Lamka</td>
<td>400</td>
<td>500</td>
<td>1500</td>
</tr>
<tr>
<td>12.</td>
<td>Ebenezer compound, Bungmual</td>
<td>500</td>
<td>1000</td>
<td>-</td>
</tr>
</tbody>
</table>

**Total**: 8,430 9,600 13,600 11,000 8,300 7,300

NB: Again, length of 200 mm dia. raw water main from Lanva River source to Bungmual treatment plant is 7,000 Rm.
Khajang Veng Reservoir

District Hospital Reservoir
Phaillien Reservoir

Tangnuam Reservoir
FINDINGS AND SUGGESTIONS

• Findings:
• From the MAS account, it is seen that only 7,400 Rm. of 100 mm. dia. DI pipes has been utilized against the supplied quantity of 9,600 Rm.
• The balance 2,200 Rm. has been utilized by Thoubal PHE Division.
• This balance quantity of pipes should either be returned by the Thoubal PHE Division or it should be transferred to the works of Thoubal PHE Division by the Churachandpur PHE Division.
• Transfer Entry Order with booking of expenditure to the proper head of accounts should be made so that 100% utilization with Completion Certificate can be submitted to the Govt. of India.
• There are no other discrepancies in other sizes of pipes.
• The booking of expenditure has been made with 11.75 % Agency Charge instead of the sanctioned figure of 9 % Agency charge in the Approved DPR.

3. Upgradation of Distribution System and replacement of raw water main for Ukhrul District HQ and surrounding villages

• Project Cost 5.00 Crore
• Year of Sanction 6th January 2009
• Time Frame 1 (One) Year
• Actual Time Taken 1 Year 2 Months (5th March 2010)
• Expenditure Incurred 4.98 Crore
• Date of Submission of 100 % UC Not yet submitted
Scope of the Work

- Extension and replacement of Distribution pipelines:
  a) Tingrei /SDO office 100 mm dia - 2.5 km
  b) District Hospital/Mayotang 80 mm dia - 0.5 km
  c) Phungreitang East and West/Soyatang/7th Finance Qtr 100 mm - 1.2 km
     80 mm dia - 1.5 km
  d) Vashingtang/Kaziphung/Awungtang (Hundung) 80 mm dia - 2.0 km
  e) Greenland/Alungtang/Khayashat/Rayotang 80 mm dia - 1.0 km
  f) Khunjao/Awongtang/Kasom/Luyainaotang 100 mm dia - 4.0 km

- Replacement of Old Raw water main from Shiroi source for a length of 12 Km – 150 mm Dia DI pipe.

- Construction of District Level Laboratory
- Improvement of the old reservoir

Replacement of Pipes at District Hospital, Ukhrul
Laboratory, Ukhrul

Replacement of raw water pipe, Ukhrul
FINDINGS AND SUGGESTIONS

While inspection was carried out on 12.03.2011, work of the upgradation of distribution network was not complete in all respects even though the required GI pipes of 100 mm & 80 mm dia are lying at the treatment plant of Ukhrul due to the improvement of road work by the BRO within the town.

4. Upgradation of Distribution Pipe network and improvement of treatment sites for Water Supply Schemes at Senapati District HQ, Ph – I

- Project Cost: 3.00 Crore
- Year of Sanction: 2008-09
- Time Frame: 2 (Two) Years
- Actual Time Taken:
  - a) Physical – Completed
  - b) Financial – Yet to be closed
- Expenditure Incurred: 2.80 Crore
- Date of Submission of 100 % UC: Not yet submitted
**Brief**

- The District Headquarter area of Senapati is provided with drinking water from 3 Nos. of treatment units.
  a) Taphou Naga Treatment Unit,
  b) Ekailongdi Treatment Unit and
  c) Mao Karong Treatment Unit

**Scope of the Work**

- Objectives of the Project are
  a) expanding its command area and population,
  b) tapping larger quantity of raw water,
  c) protecting the treatment sites by fencing

- Details of Pipelines

<table>
<thead>
<tr>
<th>Pipe Type</th>
<th>Diameter</th>
<th>Rate (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.I. Pipe</td>
<td>150 mm. dia.</td>
<td>5,000.00 Rm</td>
</tr>
<tr>
<td>G.I. Pipe</td>
<td>100 mm. dia.</td>
<td>3,000.00 Rm</td>
</tr>
<tr>
<td></td>
<td>80 mm. dia.</td>
<td>2,500.00 Rm</td>
</tr>
<tr>
<td></td>
<td>65 mm. dia.</td>
<td>2,500.00 Rm</td>
</tr>
<tr>
<td></td>
<td>50 mm. dia.</td>
<td>4,500.00 Rm</td>
</tr>
<tr>
<td></td>
<td>40 mm. dia.</td>
<td>3,000.00 Rm</td>
</tr>
<tr>
<td></td>
<td>32 mm. dia.</td>
<td>5,000.00 Rm</td>
</tr>
<tr>
<td></td>
<td>25 mm. dia.</td>
<td>4,000.00 Rm</td>
</tr>
</tbody>
</table>
Distribution pipeline, Taphou Rikhumai

PCC Steps and Fencing at Ekai Longdi
Distribution Main, Tadubi

Raw water main, Tadubi
FINDINGS AND SUGGESTIONS

- Project cost – 3.00 crores
- 5 Kms. of 150 mm dia Pipes procured for the raw water main was transferred to Extension of Raw water main of Tadubi Water Supply Scheme.
- The raw water main of Tadubi Water Supply Scheme needed extension for an extra length of 5 Km due to land dispute in the area of the source.
- TEO for the same pipe should be made immediately.
- Expenditure for Senapati Water Supply Scheme is reduced and that of Tadubi Water Supply Scheme is increased to the extent of the cost of DI Pipes. (Rs. 80.70 lakhs)
- The Expenditure thus reduced from Senapati Water Supply Scheme can be utilised for clearing liabilities for compound wall and PCC steps and 100 % UC may be submitted.
5. Upgradation of Water Supply Scheme at Old Thumbuthong and Yonglan Leirak Areas, Imphal

- Project Cost: 2.00 Crore
- Year of Sanction: January 2009
- Time Frame: 1 (One) Year
- Actual Time Taken: 7 months (July 2009)
- Expenditure Incurred: 1.99 Crore
- Date of Submission of 100 % UC: Yet to be submitted

Scope of the Work

- Laying of DI K7 150 mm dia 1500 m (Old Thumbuthong area)
- Laying of DI K7 150 mm dia 2300 m, 200 mm dia 420 m (Yonglan Leirak area)
- Procurement of 250KVa Transformer (Old Thumbuthong)
- Details of work done and pipes laid are shown in the Report
**FINDINGS & SUGGESTIONS**

Findings

- Break up of pipelines laid
- Thumbuthong area: (150 mm dia DI pipe)
  - A) St. George School Leirak 320 m
  - B) Pureitmayum Leirak 303 m
  - C) GuruAriham Leikai 232 m
  - D) Macha Leima road 253 m
  - E) Bachaspati Leirak 82 m
  - F) Hanjabam Leirak 190 m
  - Total 1500 m

- Yonglan Leirak Area: (150 mm dia DI pipe)
  - A) Kongba to Yonglan Leirak along Ayangpalli Road (Western side) 1100 m
  - B) Yonglan Leirak (Southern side) 800 m
  - C) Nongmeibung Pung Leikai 400 m
  - Total 2300 m

- Yonglan Leirak Area: (200 mm dia DI pipe)
  - A) Utilised at Kanchipur 300 m
  - B) Ayangpalli Road & DC Road Porompat 120 m
  - Total 420 m
FINDINGS & SUGGESTIONS

- No major differences are seen but about 300 m of 200 mm dia DI pipes were transferred to Kanchipur Water Supply Scheme. It should be regularised by booking the cost of pipes to the proper Head of Account through proper TEO or the same quantity should be returned.

- Deviations during execution of the scheme
- MAS and TEO
- Attention to preparation of Detailed Estimate
- No Sufficient time for conducting survey, investigation and design to avoid deviations and extra items
- Realisation of revenues and taxes for proper maintenance

6. Distribution of pipe network for Imphal – Old Thumbuthong, Babupara Overhead Tank, Pipeline system at Yonglan Leirak in Imphal (Babupara only)

- Project Cost 1.00 Crore
- Year of Sanction January 2009
- Time Frame 1 (One) Year
- Actual Time Taken May 2009
- Expenditure Incurred 1.04 Crore
- Date of Submission of 100 % UC Not yet submitted
Scope of the Work

- Laying of 150 mm and 200 mm dia DI pipes
- Supplying and Installation of 250 KVa Transformer.
- Stringing of HT Line.

FINDINGS AND SUGGESTIONS

- Not much difference is found in the execution of the work as the items are for procurement of materials mainly.
7. Upgradation of Chandel HQ Water Supply Scheme and extension of feeder line to the surrounding areas

- Project Cost: 4.00 Crore
- Year of Sanction: 2008-09
- Time Frame: 1 (One) Year
- Actual Time Taken: Yet to be completed
- Expenditure Incurred: 3.80 Crore
- Date of Submission of 100 % UC: Yet to be submitted

**Brief**

- Provisions for distribution pipelines were upto Zonal Reservoir only as per plan under NLCPR.
- Adjoining villages were not getting the full benefit of the augmentation as feeder lines to the respective colony and adjoining villages are inadequate in size and has also become very old and corroded at many places.
- Extension of the pipelines to 8th MR post at Leikun and para-military forces were also very much required.
- Old raw water main for the old existing scheme also needed replacement.
- Intake structure prone to damages during the rainy season also required strengthening.
- Additional Zonal Reservoir was needed for the old treatment unit.
Scope of the Work

- (i) Providing & laying of feeder lines,
- (ii) Construction of RCC Zonal Reservoir 2.50 lakh litres capacity – 3 Nos,
- (iii) Construction of pipe crossing, anchor block & pipe support,
- (iv) Construction of cement concrete retaining wall for the treatment site.

The details of pipes are as given below.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of Zone</th>
<th>Length of pipes in metre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>100 mm</td>
</tr>
<tr>
<td>1.</td>
<td>Providing &amp; laying of feeder lines</td>
<td>7,500</td>
</tr>
</tbody>
</table>

Zonal Reservoir at 8th MR

Inspection report for Upgradation of Chandel Hqtrs water supply scheme & extension of feeder lines for surrounding areas (under SPA) on 16th April 2011.

Constrn. of Zonal Reservoir at Leikun 8th M.R. battalion
Angkhel Chayang

Inspection report for Upgradation of Chandel Hld Qtr water supply scheme & extension of feeder lines for surrounding areas (under SPA) on 16th April 2011.
Constrn. of Zonal Reservoir at Angkhel Chayang

Pipe Supports

Inspection report for Upgradation of Chandel Hld Qtr water supply scheme - extension of feeder lines for surrounding areas (under SPA) on 16th April 2011.
Constrn. of Pipe supports & Anchor blocks
### FINDINGS AND SUGGESTIONS

**Progress:**
Laying of feeder line and improvement of existing distribution line has been completed covering the following villages –

<table>
<thead>
<tr>
<th></th>
<th>Lamphou Pasana,</th>
<th></th>
<th>Lamkang Colony,</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mantri Pantha,</td>
<td></td>
<td>Kurkam Village,</td>
</tr>
<tr>
<td>2</td>
<td>Japhou East West,</td>
<td></td>
<td>Natham,</td>
</tr>
<tr>
<td>3</td>
<td>River Lane,</td>
<td></td>
<td>Chandel Khullen,</td>
</tr>
<tr>
<td>4</td>
<td>Nhahringkhu,</td>
<td></td>
<td>Chandel Khubul,</td>
</tr>
<tr>
<td>5</td>
<td>Solan,</td>
<td></td>
<td>Chandel Christian,</td>
</tr>
<tr>
<td>6</td>
<td>Panchai,</td>
<td></td>
<td>District Hospital,</td>
</tr>
<tr>
<td>7</td>
<td>Japhou Bazar,</td>
<td></td>
<td>Sports Complex,</td>
</tr>
<tr>
<td>8</td>
<td>Sidan Dam,</td>
<td></td>
<td>Modi,</td>
</tr>
<tr>
<td>9</td>
<td>Lambung,</td>
<td></td>
<td>Charangching Khullen,</td>
</tr>
<tr>
<td>10</td>
<td>Kanankhu,</td>
<td></td>
<td>Charangching Khunkha,</td>
</tr>
<tr>
<td>11</td>
<td>Khurinkhu,</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FINDINGS AND SUGGESTIONS**

- Instead of 3 zonal reservoirs, only 1 (one) reservoir has been constructed at Japhou.
- Two Independent schemes were taken separately for the 8th MR at Leikun (for security reasons) and at Angkhel Chayang (far from treatment site).
- Construction of retaining wall at treatment site was not started on the date of field visit on 16.04.2011.
- Financially it is found that there is still a balance of Rs. 20 lakhs (400-380).
- Payment for construction of chowkidar quarter and balance payment for zonal reservoir are to be made still.
FINAL REPORT

- Deviations during execution of the scheme
- Attention to preparation of Detailed Estimate
- No sufficient time for conducting survey, investigation and design to avoid deviations and extra items
- Realisation of revenues and taxes for proper maintenance

8. Waithoupat Water Supply Scheme, Thoubal District (Additional Component Phase – I)

- Project Cost: 3.00 Crore
- Year of Sanction: December 2008
- Time Frame: 1 (One) Year
- Actual Time Taken: Yet to be completed
- Expenditure Incurred: 3.00 Crore
- Date of Submission of 100 % UC: 28.07.2009
Scope of the Work

- Construction of pipe crossings at Athokpam (Arong river) and at Wangjing Bazar (Wangjing river)
- Thoubal river
- Thoudam Wangma Taba
- Construction of Earthen Storm Water Canal along eastern and southern side of the lake.
- Removal of vegetation (Phumdi)
- Construction of culverts 2 (two) nos and lock gates 5 (five) nos

- Item wise Details of work done and Expenditure incurred are shown in Annexure enclosed in the Report.

Pipe Crossing, Wangjing river
FINDINGS AND SUGGESTIONS

- Removal of phumdi was not done due to dispute among local groups. The money for the same (Rs. 54.26 lakhs) has been utilised for additional works of extension of pipe crossing and steel truss over Thoubal river, Wangjing river and Athokpam river on the northern and southern side.

- Realignment of pipeline and Extension of steel truss over Thoubal river and Athokpam river was required due to widening of the NH 39 thereby causing delay in commissioning the scheme.
9. Water Supply Scheme for Kwakeithel Thiyam Leikai

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Cost</td>
<td>4.64 Crore</td>
</tr>
<tr>
<td>Year of Sanction</td>
<td>March 2010 (Rs. 2 crore) March 2011 (Rs. 2.64 crore)</td>
</tr>
<tr>
<td>Time Frame</td>
<td>2 (Two) Years</td>
</tr>
<tr>
<td>Actual Time Taken</td>
<td>Work in Progress</td>
</tr>
<tr>
<td>Expenditure Incurred</td>
<td>4.62 Crore</td>
</tr>
<tr>
<td>Date of Submission of 100 % UC</td>
<td>Not yet Submitted</td>
</tr>
</tbody>
</table>

Scope of the Work

- Construction of 1 lakh gallon RCC Overhead tank
- Construction of 1 lakh gallon zonal reservoir
- Laying of DI pipeline
  - 100 mm dia - 2150 m
  - 150 mm dia - 1000 m
  - 200 mm dia - 1200 m
- Procurement of 100 Kva Transformer
- Procurement of 50 HP electric pumpsets
- Chowkidar quarter
- Fencing
FINDINGS AND SUGGESTIONS

- Almost all items completed except the RCC overhead tank and installation of transformer and pumpset.
- Since, source is from Kangchup, adequate water may not be available during the lean season.

10. Water Treatment Plant at Singjamei Ward No. 17

- Project Cost: 6.89 Crore
- Year of Sanction: March 2010 (A/A)
- Expenditure Sanction: March 2010 - 3 crore, March 2011 - 3.89 crore
- Time Frame: 2 (Two) Years
- Actual Time Taken: Work in progress
- Expenditure Incurred: 6.80 Crore
- Date of Submission of 100 % UC: Not yet submitted
Scope of the Work

- Construction of 2.5 MLD Treatment Plant (comprising of Intake, Aerator, Flash Mixer, FloccuClarifier, Rapid Sand Filter, RCC service reservoir, land development & mechanical equipments etc).
- Laying of 200 mm dia raw water main pipeline – 200 m.
- Distribution pipeline 150 mm dia – 2000 m.
- Laying of 500 mm dia clear water conveying main from TP to reservoir – 580 m.
WATER TREATMENT PLANT AT SINGJAMEI WARD NO.17 (SPA)  
CONSTRUCTION OF INTAKE

75

WATER TREATMENT PLANT AT SINGJAMEI WARD NO.17 (SPA)  
CONSTRUCTION OF RAPID SAND FILTER

76
WATER TREATMENT PLANT AT SINGJAMEI WARD NO.17 (SPA) (CONSTRUCTION OF FLOCCU CLARIFIER)
FINDINGS AND SUGGESTIONS

- No major differences are observed.
- Item wise Progress of the works and expenditure incurred are shown in the Report.
- The items are at different stages of construction.

11. Sewerage Project, Phase – I for Imphal City (2010-11)

- Project Cost: 106 Crore
- Year of Sanction: February 2010
- Time Frame: 2 (Two) Years
- Actual Time Taken: Work in progress (Target Dec 2012)
- Expenditure Incurred: 51.72 Crore
- Date of Submission of 100 % UC: Not yet submitted
Brief

- Sewerage Project Phase-I, Zone-I for Imphal City was taken up with French Assistance.
- Target coverage of Ward No. 1, 2, 3, 4, 5, 6, 14, 15, 24 & 25 of Imphal Municipal area.
- The design flow for the treatment plant is 27,000 m$^3$/day for a population of 1,73,245 heads.
- The designed period is 30 years for primary and secondary networks and 15 years for sewage treatment plant with provision for extension for future requirement.
- Materials for sewer network are RCC, PVC, HDPE & DI pipe networks.

Brief Financial

- Total revised cost 259.15 crore
- EAP component 41.54 crore
- State component 217.61 crore
  (259.15 - 41.54)
- Expenditure incurred under State Plan 111.61 crore
- Funding proposed under SPA 106 crore
  (217.61 – 111.61)
### Details and Progress of Work
on the day of Field Visit on 08.09.2011

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Items of work</th>
<th>Quantity</th>
<th>Amount (Rs)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sewage treatment plant:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Construction of file Screening Chamber</td>
<td>1 job</td>
<td>15,11,750.00</td>
<td>Foundation completed.</td>
</tr>
<tr>
<td>2</td>
<td>Constrn. of Grease and Grits removal tank</td>
<td>1 job</td>
<td>52,690,750</td>
<td>Foundation &amp; 50% of wall completed.</td>
</tr>
<tr>
<td>3</td>
<td>Constrn. of repartition chamber</td>
<td>1 job</td>
<td>17,73,000</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Constrn. of Aerator cum clarifier – 4 Nos sludge recirculation .etc.</td>
<td>1 job</td>
<td>773,22,500</td>
<td>Overall 75% completed.</td>
</tr>
<tr>
<td>5</td>
<td>Construction of Thickners</td>
<td>1 job</td>
<td>68,95,000</td>
<td>Foundation completed</td>
</tr>
<tr>
<td>6</td>
<td>Constrn. of Sludge container</td>
<td>1 job</td>
<td>51,22,000</td>
<td>Not started</td>
</tr>
<tr>
<td>7</td>
<td>Constrn. of sludge dewatering belt</td>
<td>1 job</td>
<td>13,29,750</td>
<td>-do-</td>
</tr>
<tr>
<td>8</td>
<td>Construction of Control Room</td>
<td>1 job</td>
<td>41,37,000</td>
<td>-do-</td>
</tr>
<tr>
<td>9</td>
<td>Constrn. of Electrical room and power generator room</td>
<td>1 job</td>
<td>44,32,000</td>
<td>-do-</td>
</tr>
<tr>
<td>10</td>
<td>Constrn. of drainage pumping system</td>
<td>1 job</td>
<td>6,89,500</td>
<td>Equipment procured and foundation not yet done.</td>
</tr>
<tr>
<td>2</td>
<td>Sewer Network:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Constrn. of treated water channel &amp; industrial water pumping system</td>
<td>1 job</td>
<td>39,40,000</td>
<td>Not started</td>
</tr>
<tr>
<td>12</td>
<td>Laying of connecting pipe (PVC) 500 mm. dia. 150 Rm</td>
<td>1 job</td>
<td>9,85,000</td>
<td>-do-</td>
</tr>
<tr>
<td>13</td>
<td>P/L connecting pipe (PVC)</td>
<td>1 job</td>
<td>12,80,500</td>
<td>-do-</td>
</tr>
<tr>
<td>i)</td>
<td>160 mm. dia. – 400 Rm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td>1000 mm. dia. – 50 Rm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>P/L connecting pipe line (cement concrete pipes)</td>
<td>1 job</td>
<td>59,10,000</td>
<td>-do-</td>
</tr>
<tr>
<td>i)</td>
<td>800 mm. dia. – 400 Rm</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ii)</td>
<td>1000 mm. dia. – 50 Rm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Constrn. of pumping chamber at Langol crossing</td>
<td>1 job</td>
<td>54,07,261</td>
<td>60% completed</td>
</tr>
</tbody>
</table>

### Details and Progress of Work
on the day of Field Visit on 08.09.2011

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<td>Not started</td>
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<td></td>
</tr>
<tr>
<td>15</td>
<td>Constrn. of pumping chamber at Langol crossing</td>
<td>1 job</td>
<td>54,07,261</td>
<td>60% completed</td>
</tr>
</tbody>
</table>

**II) Sewer Network:**

1. Laying of primary sewer | 1 job | 1278,44,857 Annexure-I |
2. Laying of secondary sewers | 1 job | 1812,96,298 Annexure-II |
3. P/L 1000 mm. dia. glass reinforced plastic pipes (GRP) at AB line, Lamphelpat in place of RCC 1000 mm. dia. sewer line | 1 job | 802,13,797 Not started |
4. P/L 400 mm. dia. 500 mm. dia. and 630 mm. dia. HDPE pipes for sewer lines using Trenchless Technology at different part of Imphal | 1 job | 1552,80,000 About 50% completed |
5. Restoration work for road, drains, culverts and maintenance of drains, etc. | 1 job | 732,94,489 In progress |
### Details and Progress of Work on the day of Field Visit on 08.09.2011

#### III) Pumping Station:
- **a)** Construction of lift station at Yaiskul: 1 job, 46,31,207 Civil works 95% completed.
- **b)** Constrn. of lift station at Kangla North: 1 job, 46,31,207 Civil works 80% completed.
- **c)** Constrn. of lift station at Shamumakhong: 1 job, 54,07,261 Civil works 80% completed.
- **d)** Constrn. of lift station at Keishampat: 1 job, 54,07,261 Civil works 80% completed.

#### IV) Electrical installation and lifting etc:
- **i)** Lift Stations:
  - a) Stringing of HT/LT installation of 250 KVA electrical transformer at Shamumakhong i/c cable wiring, etc.: 1 job, 15,87,783 Equipments procured. Not yet installed.
  - b) –do– at Yaiskul: 1 job, 15,87,783 -do-
  - c) –do– at Kangla North: 1 job, 15,87,783 -do-
  - d) –do– at Keishampat: 1 job, 15,87,783 -do-
- **ii)** Treatment Plant:
  - a) Stringing of HT/LT lines i/c installation of 3x400 KVA electrical transformer at STP: 1 job, 69,50,000 Equipments procured. Not yet installed.
  - b) Electrical wiring of the installations of treatment plant central rook, pump house, etc.: 1 job, 54,00,000 -do-

#### V) Procurement of T&P such as Excavator, Crane and Trucks, etc.
- 1 job, 50,00,000 Completed.

#### VI) Land development, approach road, etc.
- **1)** Constrn. of compound wall at treatment site at STP: 1 job, 200,00,000 60% completed.
- **2)** Constrn. of pucca open channel from STP to Samusang: 1 job, 166,00,000 Not yet started.
- **3)** Constrn. of earthen open channel from Samusang to Nambul River: 1 job, 26,00,000 Not yet started.

#### VII) Others:
- **1)** Proforma invoice for equipments for Keishampat pumping station: 1 job, 280,00,000 Payment made.
- **2)** Payment to be made to French Consortium for extension of service to PHED for 1 year: 1 job, 160,00,000 -do-

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**Details and Progress of Work on the day of Field Visit on 08.09.2011**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>V)</td>
<td><strong>Procurement of T&amp;P such as Excavator, Crane and Trucks, etc.</strong></td>
<td>1 job</td>
<td>50,00,000</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>VI)</td>
<td>Land development, approach road, etc:</td>
<td>1 job</td>
<td>200,00,000</td>
<td>60% completed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Constrn. of compound wall at treatment site at STP</td>
<td>1 job</td>
<td>166,00,000</td>
<td>Not yet started</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Constrn. of pucca open channel from STP to Samusang</td>
<td>1 job</td>
<td>26,00,000</td>
<td>Not yet started</td>
<td></td>
</tr>
<tr>
<td>VII)</td>
<td>Others:</td>
<td>1 job</td>
<td>280,00,000</td>
<td>Payment made</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Proforma invoice for equipments for Keishampat pumping station</td>
<td>276,22,204</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Payment to be made to French Consortium for extension of service to PHED for 1 year</td>
<td>488,27,129</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add 5.6% VAT</td>
<td>9207,40,149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add 3% contingency charge</td>
<td>9483,62,354</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add 11.75% departmental charges</td>
<td>10597,94,930</td>
<td>Say- Rs.106.00 crore</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Break-up of Expenditure at the time of Submission of Report (Sept. 2011)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Item/Sub-head of work</th>
<th>Approved cost</th>
<th>Expenditure incurred</th>
<th>Month during which the expenditure was incurred</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sewerage treatment plant</td>
<td>Rs. 127,050,311.00</td>
<td>Rs. 78,381,576.00</td>
<td>March 2011</td>
<td>65% completed</td>
</tr>
<tr>
<td>2.</td>
<td>Sewerage network primary, secondary, trenchless, etc.</td>
<td>Rs. 617,929,441.00</td>
<td>Rs. 195,147,477.00</td>
<td>March 2011</td>
<td>81% completed</td>
</tr>
<tr>
<td>3.</td>
<td>Pumping Stations</td>
<td>Rs. 20,076,895.00</td>
<td>Rs. 17,780,077.00</td>
<td>March 2011</td>
<td>94% completed</td>
</tr>
<tr>
<td>4.</td>
<td>Electrical installation and lighting, etc.</td>
<td>Rs. 18,791,132.00</td>
<td>Rs. 3,475,000.00</td>
<td>March 2011</td>
<td>19% completed</td>
</tr>
<tr>
<td>5.</td>
<td>Development of land in and around the STP i/c compound fencing, pucca and earthen channel, etc.</td>
<td>Rs. 36,200,000.00</td>
<td>Rs. 19,036,000.00</td>
<td>March 2011</td>
<td>38% completed</td>
</tr>
<tr>
<td>6.</td>
<td>Procurement of pumping equipments for Keishampat pumping station</td>
<td>Rs. 28,000,000.00</td>
<td>Rs. 28,000,000.00</td>
<td>March 2011</td>
<td>Completed.</td>
</tr>
<tr>
<td>7.</td>
<td>Miscellaneous</td>
<td>Rs. 21,000,000.00</td>
<td>Rs. 21,000,000.00</td>
<td>March 2011</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Amount kept under 8449</td>
<td>Rs. 86,696,000.00</td>
<td>Rs. 86,696,000.00</td>
<td>March 2011</td>
<td></td>
</tr>
</tbody>
</table>

Add 5.6% VAT: Rs. 48,827,129.00 Rs. 23,827,783.00
Add 3% contingency: Rs. 4,620,393.00 Rs. 1,937,151.00
11.75% dept. Charge: Rs. 54,379,427.00 Rs. 51,783,587.00

- Site Plan showing the progress of laying of Primary and secondary sewer lines and 12 nos of photographs showing the progress of construction at different places were enclosed in the Report.

## FINDINGS AND SUGGESTIONS

- MAS accounts are yet to be furnished
12. Water Supply Scheme to be implemented in various districts (Installation of water pipes, overhead tanks)

- Project Cost: 13.75 Crore
- Year of Sanction: ---
- Time Frame: ---
- Actual Time Taken: ---
- Expenditure Incurred: ---
- Date of Submission of 100 % UC: ---

- No Sanction is available for this Project.

Thank You