In association
with

Brisbane City Enterprise Pty Ltd, Australia
AQUA Consultant and Associates Ltd, Bangladesh
Building Design Authority, Nepal
CEMAT Consultants, Nepal

Monthly Progress Report (January, 2016)

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar, Nepal

07 February 2016

Biratnagar Sub-Metropolitan City, Nepal

AUSTRALIA | ASIA | MIDDLE EAST | AFRICA | PACIFIC

Project Name:	Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP)
Project Number:	56064023
Report for:	Biratnagar Sub Metropolitan City, Nepal

PREPARATION, REVIEW and AUTHORISATION

Revision	Date	Prepared by	Reviewed by	Approved for Issue by
	07 February 2016	DSC		

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1. SALIENT FEATURE of Contract Package: STIUEIP/W/BRT/ICB-01

General Features	
Name of Project	Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP)
Executing Agency	Government of Nepal, Ministry of Urban Development Department of Urban Development and Building Construction (DUDBC)
Implementing Agency	Biratnagar Sub-Metropolitan City, Biratnagar
Funded By	Asian Development Bank & Government of Nepal
Package	Sewerage and Drainage Network, Wastewater Treatment Plant and Road and Lanes Improvement Sub Project
Contract No.	STIUEIP/W/BRT/ICB-01
Location	Biratnagar Sub-Metropolitan City, Biratnagar
Consultant	SMEC in association with Brisbane/AQUA/BDA/CEMAT
Contractor	CTCE-KALIKA Joint Venture
Date of Commencement	8th December, 2013
Date of Completion	25th May, 2016
Contract Period	900 days from date of commencement
Time elapsed till December 2015	785 days from date of commencement **(87.22%)**
Original Contract Amount with PS and VAT	NRs. 2,391,332,525.90
Variation Order No 01 with VAT	NRs 99,753,075.60
Total Contract Amount with VO 01 including PS and VAT	NRs. 2,491,085,601.50
Variation Order No 02 with VAT (submitted on 02 August 2015 and is under review)	NRs. 240,596,937.92
Total Contract Amount with VO 01 and VO 02 including PS and VAT	NRs 2,731,682,539.42 (Under review), Comments received from PMSC/PCO/PIU Biratnagar on 02 October 2015 and 22 January 2016.
Paid Amount of IPC 01	NRs. 209,400,000.00 (Mobilization Advance Payment)
Paid Amount of IPC 12	**NRs. 16,931,906.24**
Total Paid Amount from IPC 01 to IPC 12	**NRs. 1,036,165,520.72**

2 INTRODUCTION / BACKGROUND

1. SMEC International Pty (Australia) in association with Brisbane City Enterprise Pty Ltd (Australia), AQUA Consultant and Associates Ltd (Bangladesh), Building Design Authority (Nepal) and CEMAT Consultants (Nepal) have entered for a Contract of Consulting Services with Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Project Implementation Unit(PIU), Biratnagar Sub metropolitan City on 7th December 2011. This monthly Progress Report of January, 2016 has been submitted to the PIU as per the Work Program proposed in the consultant's technical proposal as well as TOR of the consultant.

2. Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), the Department of Urban Development and Building Construction (DUDBC), under the Ministry of Urban Development (MUD) through the Government of Nepal (GoN) has received the loan from Asian Development Bank (ADB) Loan 2650-NEP. As per PAM contribution from GoN is 3.99 million USD, Asian Development Bank (ADB) 18.86 million USD and Biratnagar Sub-metropolitan City (BSMC) 1.99 million USD while contingency is 2.88 million USD for Secondary Town Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar. The cost sharing has been revised in April, 2013 as: Government of Nepal (GoN) is 5.960 Million USD, Asian Development Bank (ADB) 24.214 Million USD, TDF loan 4.098 Million USD and Biratnagar Sub-metropolitan City (BSMC) 2.980 Million USD and in total **37.252** Million USD.

3. In line with ADB's Strategy 2020 and based on Nepal's fundamental long term needs and on the GoN's priority, the ADB is continuing to support the Government in (i) improving urban infrastructure; improving access to water supply and sanitation (ii) supporting urban environmental improvement (iii) strengthening the operation and management skills of local governments. The proposed project Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) is another step forward to promote healthy cities by creating healthier urban environments and was formulated under the PPTA 2010.

   - Contract of consulting services signed on 07 December 2011.
   - Design works commenced on 01 January 2012.
   - Final design works submitted to the Client on March 2013
   - Contract of construction works signed on 02 December 2013
   - Construction works commenced on 08 December 2013
   - Contractor's Work Program (Revision 02) 05 December 2014, this has to be revised as the work progress is not consistent. The Contractor is advised to revise the work program and it is expected to receive by the end of August 2015. The Contractor has officially submitted the third (3rd) revised work program through the Contractor's letter in 15th September 2015 (received on 23rd September 2015). The third revised work program is under review.

3. SUB-PROJECT COMPONENTS

3.1 SEWER LINES

4. The prioritized sewer lines for Final Detailed Engineering Report of BSMC are as follows:

Table 1: Proposed Sewer Lines in BSMC

S N.	Description	Unit	Quantity
1	**Sewerage Pipe Supply and Installation**		**62,835.0**
	Reinforced Concrete Pipe laying and jointing		**15,748.0**
	Line T1 (Secondary Line T2 (Trunk)	m m	3,788.0 7,506.0
	Line T3 (Trunk)	m	4,136.0
	Line T4 (Secondary)	m	318.0
	HDPE laying and jointing		**47,087.0**
	Line T1 (Secondary	m	7,124.0
	Line T2 (Trunk)	m	19,410.0
	Line T3 (Trunk)	m	18,341.0
	Line T4 (Secondary)	m	22,12.0
2	**Manhole (Brick / RCC)**	**no.**	**2,019**
3	**Sewer Inlet**	**no.**	**3,766.00**
4	**House Connection**	**no.**	**5,930.00**
5	**Reinstatement of Roads**	**km**	**64.50**

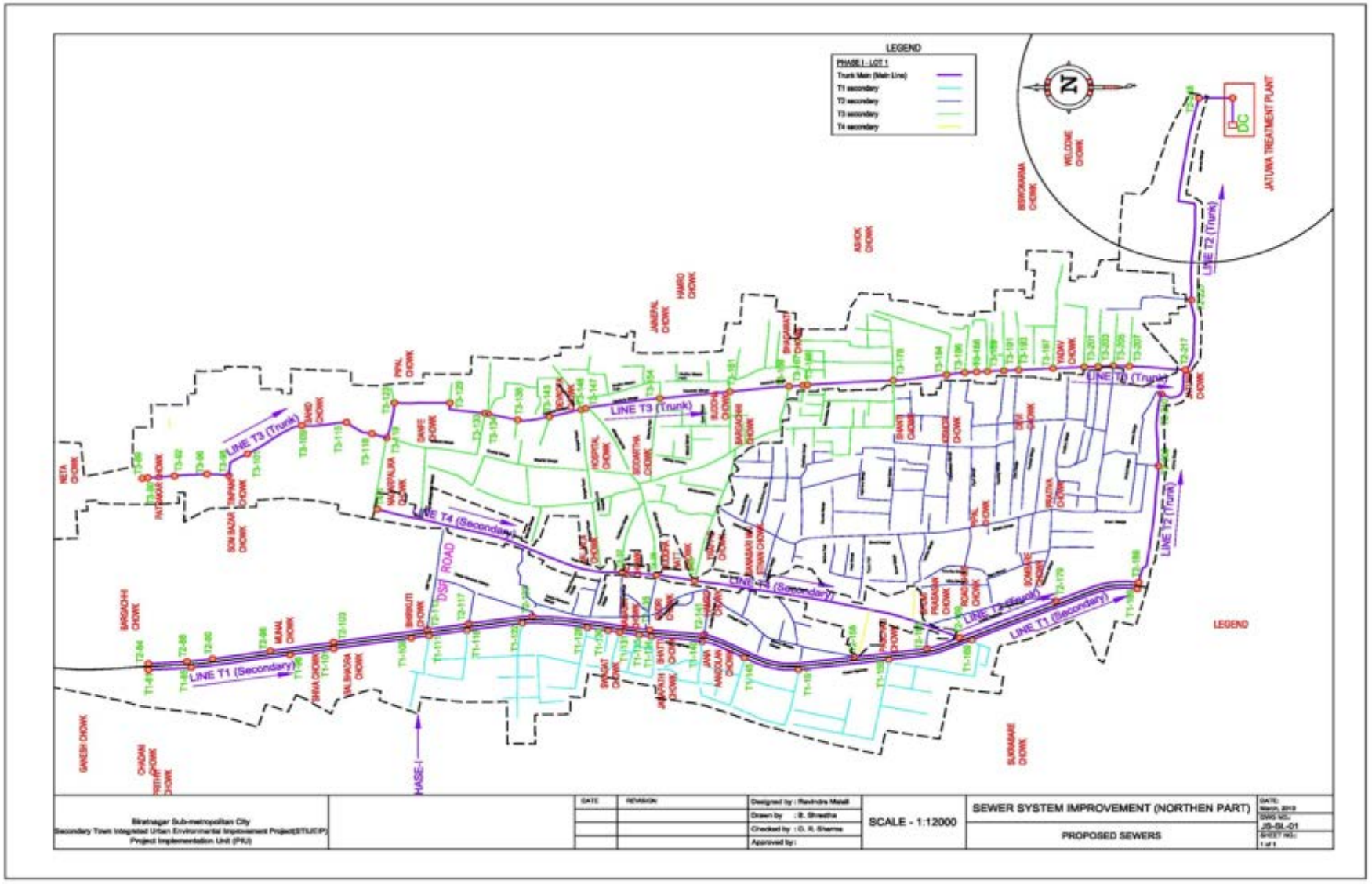


FIGURE. 1 PROPOSED SEWER LINES IN BSMC

3.2 Storm Water Drains

5. Most of the storm drains (S13, S11, S9, S5, B1, B2, B3, CN2, CN3 and southern parts) have been provisioned as Phase I priority works. The major storm drain outlets as planned are 14 numbers and catchment areas and discharges are respectively 1,324.2 Ha and 73.21 cum/sec.

Table 2: Proposed Storm Water Drains in BSMC

S. No.	Description	Unit	Quantity
A	**Storm Drain for Northern Parts**		**39,379.00**
I	Storm Drain Lines	m	25,388
II	Culvert	no	41
III	Outfall	no	15
IV	Rain Inlet	no	30
V	Manhole	no	30
VI	Canal Crossing	no	11
B	**Storm Drain for Southern Part**		
I	Brick Masonry Drain	m	13,991
II	Cleaning and Maintenance of Existing Drain	m	7,273
III	Culverts	no	38
C	**Rehabilitation of Existing Drain**		
I	Drain Cover	m	30,467
II	Cleaning and Maintenance of Existing Drain	m	33,601

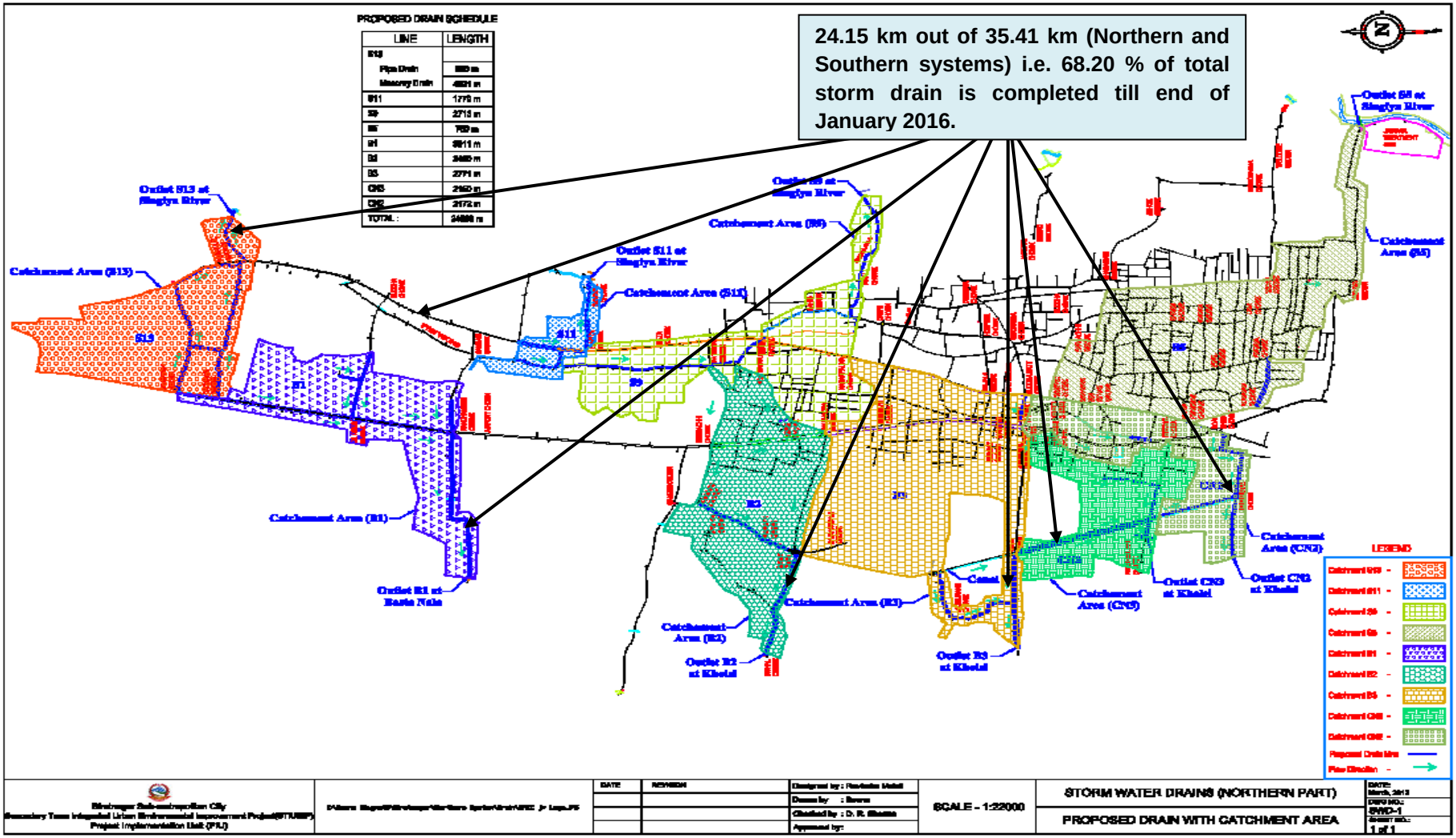


Figure 2: Proposed Storm Water Drains in BSMC (Northern Drainage System)

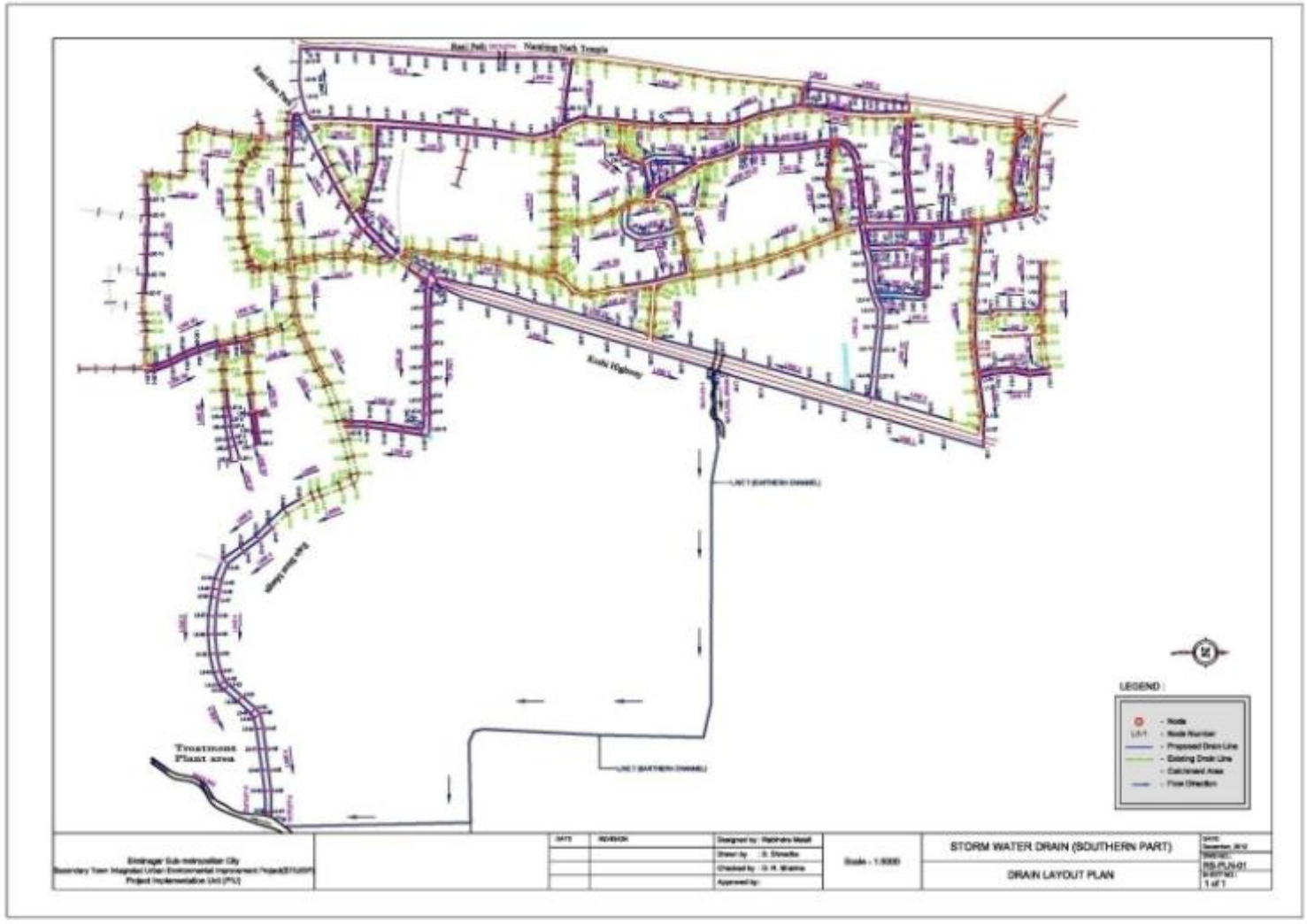


Figure 3: Proposed Storm Water Drains in BSMC (Southern Drainage System)

3.3 WASTE WATER TREATMENT PLANTS

6. The quantity of domestic waste water is calculated using water supply rate at 90 liters per person per day in the design year 2035, out of which 80% is converted into waste water. Maximum quantity of waste water is calculated taking peak factor of 1.99 to 2.5. Minimum quantity of sewage is taken as 30% of the average quantity. Commercial / Institutional / Industrial waste water quantity is calculated as 0.10 LPS/ha. While in filtration quantity is calculated as 0.14 LPS/ha in the design year 2035. The total quantity of commercial / institutional / industrial and infiltration waste water estimated as 237.79 LPS in the design year 2035 which is very large in comparison with domestic waste water quantity of 207.18 LPS. The maximum quantity (peak flow) of waste water in the design year 2035 for both Phase I and Phase II areas is estimated at 650.08LPS. The maximum quantity of the waste water for Phase I areas only is estimated at 213.97 LPS. The capacity of the Phase I WWTP has been adopted as 214LPS. The capacity of the Phase II WWTP will be thus 436 LPS. Features of WWTP at Jatuwa are as follows:

Table 3: Proposed Waste Water Components in BSMC

S.N.	Description	Unit	No
	Waste Water Treatment Plant Component		
1	By Pass Chamber	no	1
2	Distribution Chamber	no	1
3	Bar Screen Chamber	no	2
4	Sump well with Pumping Station	no	2
5	Collection Chamber1	no	1
6	Oil & Grease Chamber	no	2
7	CollectionChamber2	no	1
8	Grit Chamber	no	2
9	CollectionChamber3	no	1
10	Anaerobic Pond	no	3
11	Facultative Pond	no	3
12	Collection Chamber4	no	1
13	Outfall Structure	no	1
14	Sludge Drying Bed	no	10
15	Enclosure Chamber Shed	no	1
16	Guard House	no	1
17	Office Cum Lab Building	no	1
18	Workshop Building	no	1
19	Generator / Changing House	no	1
20	Entrance Gate	no	1
21	Boundary wall	m	1,340
22	Shallow Tube Well with water Tank	set	1
23	Landscaping and Plantation works	sqm	99,915

24	Site clearance, grubbing, surface dressing	sqm	99,915
25	Road and Drain Improvement	m	1,440
26	River training works	m	600
27	Electro mechanical works	Set	1
28	Lab Equipment and installation	Set	1

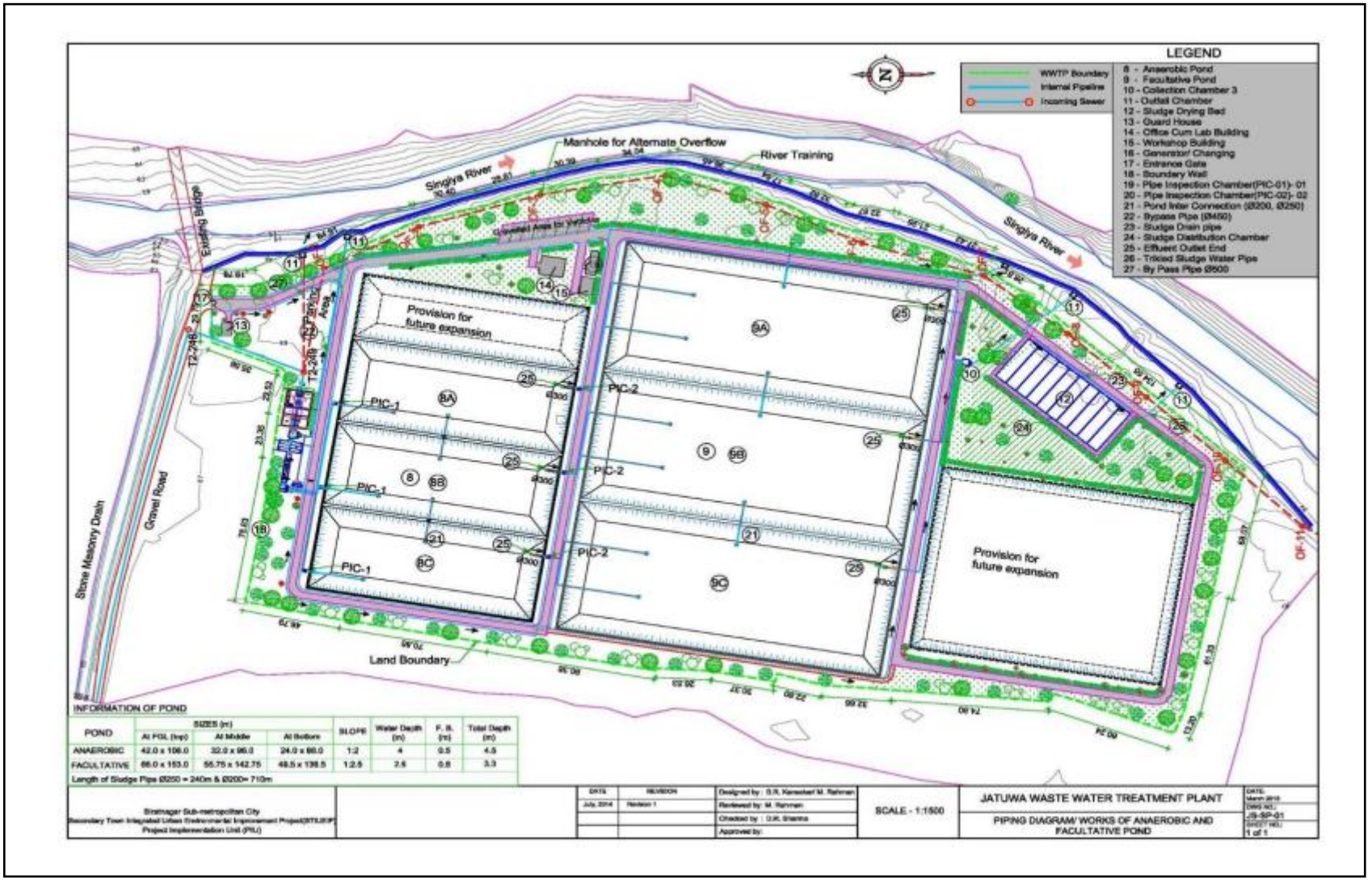


Figure 4: Proposed Waste Water Treatment Plant at Jatuwa in BSMC

3.4 Roads and Lanes

7. Most of the roads / lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement, whereas some of the roads are graveled and would benefit from upgrading. In the areas where drainage and sewerage works are proposed there will be significant impact on the existing roads. Almost necessary streets are already constructed and hence the Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads and lanes.

Table 4: Proposed Roads in BSMC

Description of Item	Quantity
Main Road Improvements (Road from Puspalal Chowk to Bhatta Chowk)	2.5 Km
Reinstatement and Road Improvements (under sewer line installation)	62.0 Km

3.5 Environmental Aspect

8. The project is environmental improvement project and mainly constitutes works on sewerage and drainage improvement works in BSMC besides others. As per ADB guidelines on Environmental Assessment requirements, this project is classified as Environment Category B. According to Environmental Protection Guidelines, 2054 BS, First Revised (2055 BS) schedule-3, IEE is required for Operations of Sewerage Schemes under Schedule 1.h.2.e (pertaining to Rule 3). The final report on IEE was submitted and MoUD had approved the IEE on May14, 2013.

9. Installation of functioning sewers and functioning drainage system including roads / lanes improvement in BSMC does not possess any adverse environmental impacts to its surrounding. In fact, these will greatly enhance the living conditions / hygiene of the inhabitants and facilitate transportation. Nevertheless, it is imperative to look into positive as well as negative impacts of such infrastructure development works in the urban area.

10. DSC has prepared and submitted Environmental Progress Reports (Semi-Annual) October 2014 – March 2015 and Quarterly Updated Environmental Report, January – March on 27 May 2015. Recently, the DSC has received comments from PCO to revise semi-annual environmental report. The next Quarterly Updated Environmental Report for the months of April, May and June 2015 and semi – annual report will be submitted soon.

3.6 Social Aspect

11. Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) in Biratnagar has commenced from 2010 to improve the quality of life and help to achieve higher and more socially inclusive economic growth of people through effective, efficient, and reliable delivery of improved and affordable municipal services. Infrastructure development of drainage and sewerage system as well as roads and lane improvement are the major components of STIUEIP in Biratnagar Sub-Metropolitan City (BSMC). Besides this, community development and institutional strengthening components, the two other objective focused components of STIUEIP Biratnagar are running various social development programs and activities.

Social development component is one of the major components of STIUEIP Biratnagar that comprises of various social development programs and activities like community development program (CDP), awareness raising, skill development, health and sanitation.

Social Development Specialist (SDS) in Design and Supervision Consultant (DSC) is deputed to assist the Project Implementation Unit (PIU) in implementing effectively the social activities to achieve the project goal as envisaged by the project. Monitoring of ongoing social development activities and consultation meetings with community people are the general tasks to be accomplished as regular basis.

Establishment and functioning of Social Safeguard Desk in PIU is a major milestone of social development aspect which has been effective to address all social/ community development issues and concerns with active initiation of the DSC.

Based on the poverty indicators, all details have been documented and shown in the social map. The program area for community development programs has been extended to most poverty stricken area scattered across several wards of the BSMC. The Community Development Program includes meetings, orientation, awareness activities, skill development trainings and health, hygiene and sanitation activities which are conducted and organized by the NGO (FriPAD).

12. As there is slack period of the construction due to monsoon and till November 2015. Currently, the work has been resumed partially due to difficulties in fuel supply from NOC and still the Madhesh strike (bandh) has not been called off to date. Hence there is no change in the status of the social matters from the previous month.

3.7 Financial Plan

13. The Sub project cost will be disbursed in three years starting from FY2013/14 to 2015/16.

It has estimated that 20 percent of the Sub project cost will be disbursed in first year. Similarly, in second year, 50 percent will be disbursed. Finally, remaining 30 percent of Sub project cost will be disbursed in third year. Actual disbursement in the first fiscal year was 4.3 %(up to July 2014); 34.3% (up to July 2015 inclusive VO2) in second fiscal year. Hence the remaining disbursement 65.7 % is planned within 25 May 2016.

3.8 DISBURSEMENT RECORDS IN CONSTRUCTION

Table 5: Disbursement Record in Construction to Date

S.N.	Description of Payment	Payment Items	Amount in NRs.
1	M/S CTCE-Kalika JV	IPC 01	209,400,000.00
2	M/S CTCE-Kalika JV	IPC 02	27,853,500.98
3	M/S CTCE-Kalika JV	IPC 03	47,507,270.95
4	M/S CTCE-Kalika JV	IPC 04	42,241,392.52
5	M/S CTCE-Kalika JV	IPC 05	22,035,291.99
6	M/S CTCE-Kalika JV	IPC 06	85,573,541.38
7	M/S CTCE-Kalika JV	IPC 07	76,203,672.17
8	M/S CTCE-Kalika JV	IPC-08	115,297549.23
9	M/S CTCE-Kalika JV	IPC-09	109,414,317.97
10	M/S CTCE-Kalika JV	IPC-10	110,962,146.75
11	M/S CTCE-Kalika JV	IPC-11	160,083,476.07
12	M/S CTCE-Kalika JV	IPC-12	16,931,906.24
		Total in NRs. with corrections	**1,036,165,520.72**

4. OBJECTIVES AND SCOPE OF WORKS

4.1 OBJECTIVES

14. The following are the expected physical infrastructure improvement outputs of the project in Biratnagar:

- Drainage and sewerage systems improved.
- Urban roads and lanes improved.

15. Reference to the deliverables identified in the Project, indicates that there are a number of deliverables related specifically to the design aspects of the above infrastructure improvements with construction works.

4.2 SCOPE OF WORKS

16. The scope of works for consultant's services is fairly detailed in the TOR attached with contract Agreement. The main points are summarized below:

A. Detailed Design and Procurement Assistance Phase
   1. Surveys verification of Feasibility Studies and GIS Base Maps
   2. Finalization of Design Criteria, Preparation of Manuals, Guidelines and Systems.
   3. Specific design requirements for the sub projects
      - Improvement and development of drainage and sewerage systems
      - Improvement of urban roads and lanes
   4. Project Planning and Management Support to PIU
   5. Detailed Engineering Design

B. Construction and Post Construction Management Phase
   1. Construction Management and Contract Administration
   2. Environmental and Social Compliance Monitoring
   3. Implementation of Community Development Program, Community Mobilization and GESI Action Plan
   4. Capacity Building of the Municipality and Service Providers for Operational Sustainability

C. Communications, Reporting and Deliverables (Inception Report, Monthly Progress Reports, Interim Report for each of the outputs, Annual Progress Report, Draft Final Report for each of the outputs and Final Report).

5 PROGRESS OF SUB-PROJECT COMPONENTS

5.1 STORM WATER DRAINS

17. The Contractor has resumed the works from mid December 2015 in difficult situation due to ongoing Madesh Strikes and partial fuel supply. Storm drains at B1, B2, B3, S9, S5 and Rani area are being continued.

    The contractor has completed storm water drain about 24.15 km out of 35.41 km, 68.20 % till January 2016.

5.2 SEWER LINES

18. The Contractor has resumed the sewer works from mid December 2015 in difficult situation due to ongoing Madesh Strikes and partial fuel supply. Sewer lines with HDP pipes are being continued but RCC pipes are stopped due to the high moisture content / ground water found while trench excavation.

    The Contractor has completed sewer lines with HDP and RCC pipes about 16.06 km out of 63.64 km, 25.24 % till January 2016.

    The proposal of the precast concrete manholes, sewer inlets and house connection chambers has been submitted for review and approval. A conditional approval in consultation with the Employer has been given to the Contractor to prepare few numbers and to demonstrate at site. If the proposal comes out to be economical, time effective and environmental friendly and structurally strong enough to carry out the function of their respective items, then the Consultant will release for unconditional approval.

    The precast concrete house connection chambers, sewer inlets and manholes were installed at sites and found to be effective and we were able to open traffic at the shortest possible time. Especially where the business center with crowds (in R5 and R65 Roads) were very efficient and effective. This has reduced disturbances to the local people and road users, dumping of construction materials, workers and working for long period. This is found to be environment friendly too. Hence, the adaptation of precast units for sewer lines found to be effective and efficient.

    During the site visit of delegate at different time in the construction period from BSMC, PMSC, ADB, PCO, local political representatives, TLO, Executive Director of TDF and the Secretary of Ministry of Urban Development have commended.

    The payment for the respective item of works as appropriate is being paid under each IPCs for the cash flow and to account disbursement in ADB's disbursement book.

5.3 WASTE WATER TREATMENT PLANT

19. Office cum laboratory building, workshop building and generator / changing house at WWTP, Jatuwa are complete. The Contractor had stopped all activities at WWTP site. There is no change in the progress from July 2015.

    Now the Contractor has just started landscaping and embankment filling at WWTP from mid December 2015.

5.4 ROAD AND LANES IMPROVEMENT WORKS

20. The Contractor has completed the rehabilitation / repair of existing drain of about 6 km in R2 road. The Contractor has completed the shifting/ relocating electric poles up to Bhatta Chowk on both sides. During the monsoon, the Contractor has continued to excavate the trenches for electric poles but the rate of the progress is in a very slow pace. The Contractor has assured that the road works on R2 road will not be affected due to delay in shifting of the electric poles. Currently, this activity has been stopped due to the strikes at Madesh/ Terai.

    The Contractor had started to prepare subgrade and sub-base after discussion held at ADB Office Kathmandu on 25th May 2015. The Contractor had tried to continue with the success if 100m sub-base laying but unfortunately the Contractor has to stop the work due to unfavorable weather condition during those days.

    The Contractor has resumed the road works (sub grade preparation, sub base laying and kerb stone placing) at R2 road as well as road side drains at sewer lines from mid December 2015. Road works have been frequently disturbed due to the existing water supply network and house connection pipes.

The Contractor has completed road side drain of R2 and sewer lines about 8.16 km out of 132.325 km, 6.16 % till January 2016.

5.5 CONSTRUCTION MATERIALS

21. The fabrication of steel moulds for precast units- manholes, sewer inlets and house connection chamber are also stopped due to the strikes at Madesh / Terai.similarly, other item of works inside the Contractor's yard is also affected due to Madesh strike.

The Contractor has resumed to produce the precast items (manholes, sewer inlets, house connection chambers, kerb stones, drain cover slabs etc.) at the Contractor's Camp, Katahari from mid December 2015.

5.6 CONSTRUCTION MATERIAL TESTING LAB

22. Construction material testing laboratory has been set up at the Contractor's camp at Katahari.
There is still no activity of lab tests due to no works at site due to Madhesh Strike.

Now, construction material testing lab is working in full swing for testing of sub grade material, sub base material, base material, concrete, brick, sand and aggregates.

As regular, Three Edge Bearing Test for RCC pipes of different diameter has been conducted on 20 January 2016 at Itahari in presence of Consultant (TL, CSE) and PM/PIU. And results were found satisfactory.

5.7 PHYSICAL PROGRESS TILL END OF JANUARY 2016

23. Total physical progress till January 2016 is about 35.64 % whereas the cumulative planned progress till January 2016 is 69.51 %, wrt work program rev. no 03. The progress of the work is lagging behind by 33.87% compared to the planned works till end of January 2016 (**based on work scheduled Rev 03, which is under review**).

Table 6: Plan Vs Actual Progress till January 2016

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar Plan Vs Progress																
Month	**Sep-14**	**Oct-14**	**Nov-14**	**Dec-14**	**Jan-15**	**Feb-15**	**Mar-15**	**Apr-15**	**May-15**	**Jun-15**	**Jul-15**	**Aug-15**	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**
Cumulative Planned work Rev 01 (%)	17.098	18.514	26.588	36.398	46.281	56.947	67.003	76.728	86.593	94.037	95.75	95.99	96.16	96.3	96.45	96.59
Cumulative Planned work Rev 02 (%)				14.04	20.11	28.74	37.22	44.94	51.60	57.295	59.33	60.92	60.99	61.07	64.65	71.29
Cumulative Planned work Rev 03 (%)													41.847	45.447	47.767	58.037
Cumulative Actual Achievements (%)	5.81	5.98	9.29	10.77	12.57	17.57	21.82	25.25	27.85	34.317	34.317	34.317	34.317	34.317	34.317	34.94
Progress lagging to date wrt the revised work plan rev 03 (%)		(12.53)	(17.30)	(3.27)	(7.54)	(11.17)	(15.40)	(19.69)	(23.75)	(22.98)	(22.98)	(22.98)	(7.53)	(11.13)	(13.45)	(23.09)

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar Plan Vs Progress																
Month		**Jan-16**	**Feb-16**	**Mar-16**	**Apr-16**	**May-16**										
Cumulative Planned work Rev 01 (%)		**96.74**														
Cumulative Planned work Rev 02 (%)		**79.29**														
Cumulative Planned work Rev 03 (%)		**69.51**														
Cumulative Actual Achievements (%)		**35.64**														
Progress lagging to date wrt the revised work plan rev 03 (%)		**(33.87)**														

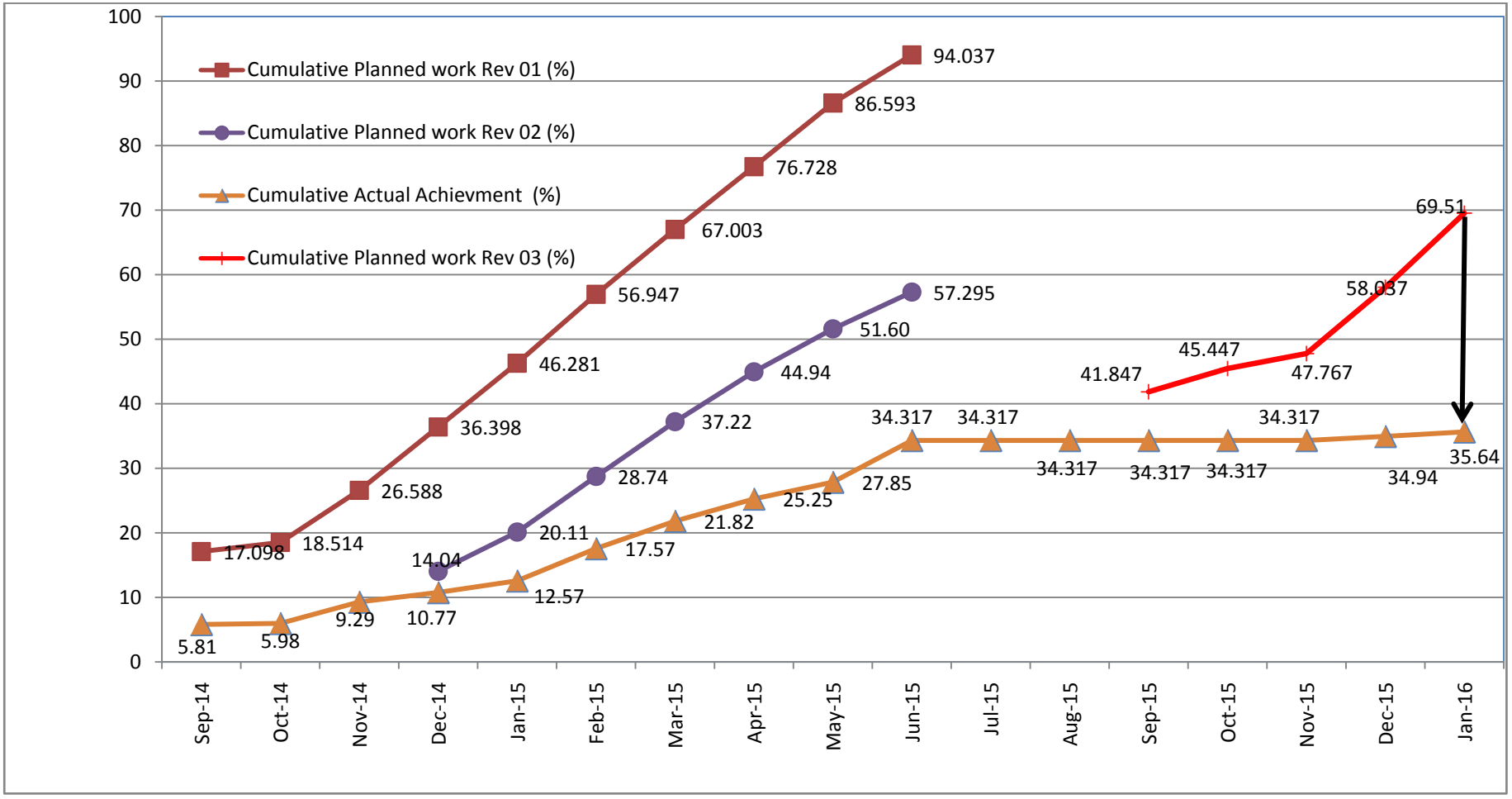


Figure 5: Plan Vs Actual Progress till January 2016

6 SUMMARY OF ACTIVITIES CARRIED OUT UP TO PREVIOUS MONTHS

6.1 ORGANIZATION AND STAFFING

The Project has involvement of different organization and the staffing as shown below.

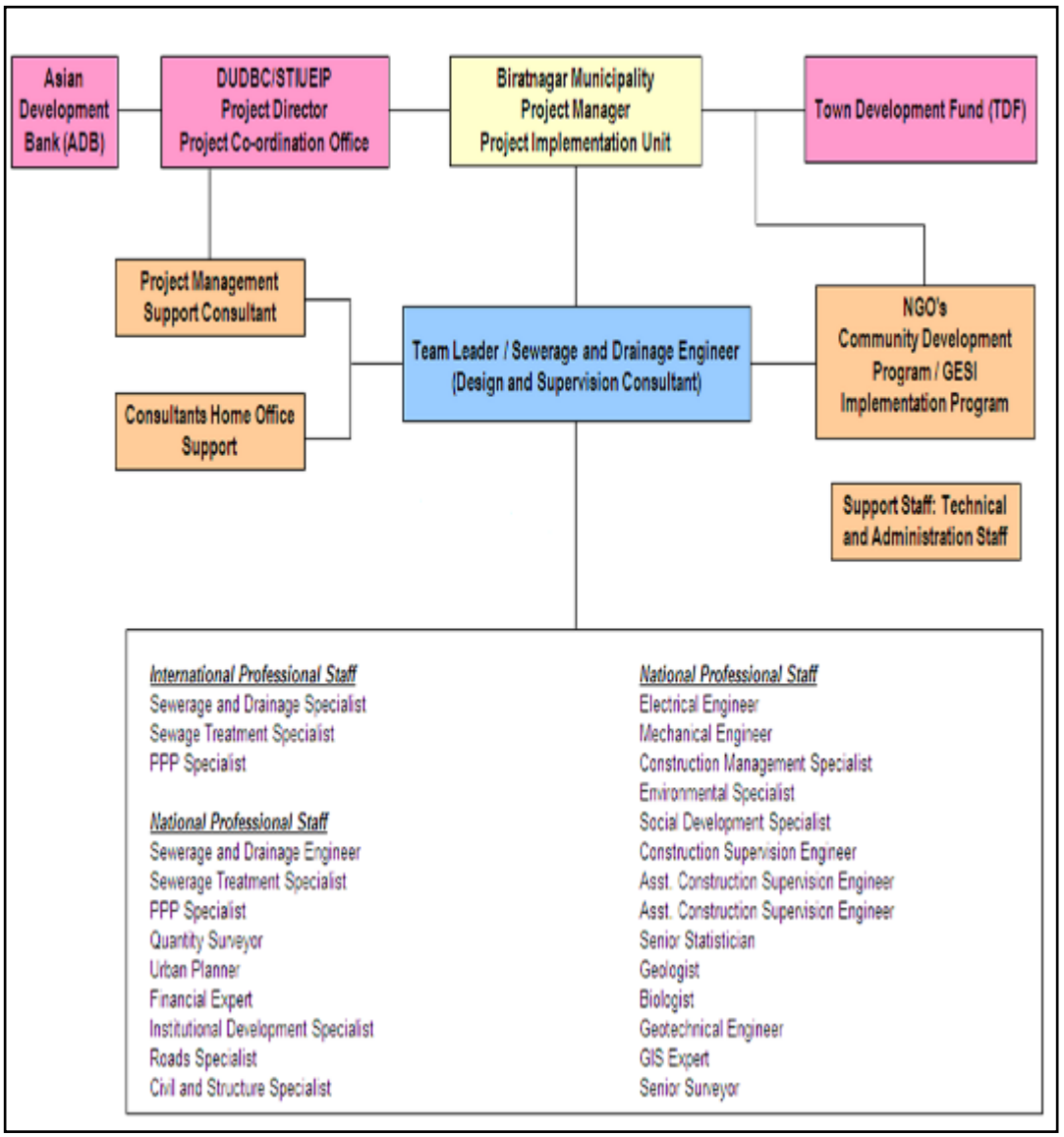


Figure 6: Organization and Staffing of STIUEIP, Biratnagar

6.2 Inception Report

24. The Inception Report was prepared and submitted on 29 February, 2012.

6.3 Conceptual Catchment Plan and Design Criteria

25. The Conceptual Catchment Plan and Design Criteria was prepared and presented in PCO on 30 March, 2012.

6.4 Survey

26. The survey was completed in August, 2012

6.5 Design

27. The design of sewer lines, storm drains, WWTPs and appurtenances and final detailed design and estimates were submitted in March 2013.

28. During construction B2, B3 and S5 alternate design was also submitted. Similarly, CN2 and CN3 were submitted as the community request to reduce the size. The size was reviewed with 1 year return period as per the suggestion made by PMSC during field visit. Minor modifications in drawings are being carried out for considering the site condition and progress.

6.6 Pre-construction Activity

29. After successful completion of one stage two envelope bidding procedure the construction contract for STIUEIP/W/BRT/ICB-01 was signed on December 2, 2013 with M/S CTCE-Kalika JV, Baluwatar, Kathmandu.

6.7 Draft Report

30. The construction/contract timing schedule was needed to incorporate some additional time of about 4-5 months to account for decision re-making process, tender award procedures.

31. The total cost as per PPTA and earlier designs increased drastically and came to be NRs. **7,274,465,206.69** and therefore needs curtailments and revisions had to be made as per suggestions by PIU in final report.

32. The overall works proposed in the PPTA and the area coverage with connection was thus needed to be phased out.

6.8 Final Report

33. The DSC submitted the Final Reports adopting cost reduction exercise by phasing out of the works. The estimated cost of the Project was reduced and kept as NRs. **3, 278, 140, 000, 00 with a lot of exercises in March 2013.**

34. The sharing of cost by concerned institutions is as follows

Table 7: Agency-wise Financial Contribution to BSMC

Contributors	Amount (US$)	Amount (NRs.)	%
Government of Nepal (GoN)	5,960,256	524,502,513	**16.0%**
Asian Development Bank (ADB)	24,213,539	2,130,791,460	**65.0%**
Biratnagar Sub-Metropolitan City (BSMC)	2,980,128	262,251,257	**8.0%**
Town Development Fund (TDF)	4,097,676	360,595,478	**11.0%**

6.9 CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

35. The current staffing of the consultant at project site is as follows

Table 8: Consultant's Staff at Project Site, Biratnagar

S. No	Name	Position
1	Mohan Kumar Tuladhar	Team Leader
2	Dil Bahadur Rana	Construction Supervision Engineer
3	Raj Bahadur Khadka	Construction Management Specialist
4		Road Specialist
5	Bala Ram Mayalu	Social Development Specialist
6	Jaya Prakash Yadav	Asst. Construction Supervision Engineer-1
7		Asst. Construction Supervision Engineer-2
8	Rajesh Yadav	Junior Engineeer-1
9	Sujan Shrestha	Junior Engineeer-2
10	Ashok Kafle	Junior Engineeer-3
11	Santosh Dahal	Junior Engineeer-4
12	Saroj Bhattrai	Junior Engineeer-5
13	Santosh Yadav	Office Manager
14	Ramji Gimire	Driver-1
15	Suman Ghimire	Driver-2
16	Ramila Ghimire	Office Assistant

36. The consultant has been constantly supervising the contractor's work in daily basis. The consultant is mainly focusing in construction management, contract administration and the following activities but not limited as listed below:

i. Daily Construction supervision

ii. Quality control, cost control and time control

iii. Measurement and Certification of Interim Payment Certificates (IPC)

iv. Modification and design of storm drainage and sewer lines, manholes etc.as per site condition and approve working drawings

v. Supervise construction material testing and sampling

vi. Monitor Environment Management Plan and its compliance

vii. Monitor Social safeguard and Resettlement Plan and its compliance

viii. Meet obligation of reporting requirement – Updated Environmental Progress Report, Updated Resettlement Progress Report, Monthly Progress Report, Semi-Annual Updated Resettlement Progress Report

ix. Prepare Due Diligence Report of the Project

x. Received comments on VO No 02 and working on it

xi. Maintain correspondences with the Employer and the Contractor

xii. Assist to PIU

xiii. Started design review and cost estimation for additional financing based on the previous design reports and details

xiv. DSC has been working on design review, cost estimate and bid documents preparation for Additional Financing for Phase –II.

6.10 KEY DATES

The consultant has noted the following key dates for the month of December 2015

Table 9: Key dates of events /activities:

S. No	Date	Activities/Events	Remarks
1		Madhesh Strike/ Bandh and problems on fuel supply from Nepal Oil Corporation (NOC).	The work has been resumed partially due to continued Madesh Strike and problems on fuel supply.
2	18-19 January 2016	ADB Mission for Additional Financing	During discussion for Additional Financing, progress of the work, difficulties and challenges were also briefed.

7 DETAILS OF ACTIVITIES CARRIED OUT IN THIS MONTH

7.1 PHYSICAL PROGRESS IN THIS MONTH

Table 10: Physical Progress in Storm Water Drains:

Physical Progress till January 2016						
S.N.	Location	Proposed Length (m)	Progress		Total to Date (m)	Progress (%)
			Up to Dec 2015 (m)	This Month (m)		
1	B1	3,580	3,564	108	3,672	102.57
2	B2	3,742	3,367	250	3,617	96.66
3	B3	3,514	3,350	144	3,494	99.43
4	S5	740	0	150	150	20.27
5	S9	3,178	810	150	960	30.21
6	S11	2,092	1,434	0	1,434	68.55
7	S13	5,640	4,334	130	4,464	79.15
8	CN2	2,273	2,216	90	2,306	101.45
9	CN3	2,170	1,493	0	1,493	68.80
10	Rani	8,483	2,521	40	2,561	30.19
	Total	**35,412**	**23,089**	**1,062**	**24,151**	**68.20**

Table 11: Physical Progress in Road Side Drain of R2 and Sewer Lines:

Physical Progress till January 2016						
S.N.	Location	Proposed Length (m)	Progress		Total to Date (m)	Progress (%)
			Up to Dec 2015 (m)	This Month (m)		
1	R2	6,325	6,325	0	6,325	100
2	T1, T2, T3, T4	126,000	821	**1,010**	1,831	1.45
	Total	**132,325**	**7,146**	**1,010**	**8,156**	**6.16**

Table 12: Physical Progress in Sewer Lines:

Physical Progress till January 2016						
S.N.	Location	Proposed Length (m)	Progress		Total to Date (m)	Progress (%)
			Up to Dec 2015 (m)	This Month (m)		
1	T1	10,912	0	822.20	822.20	7.54
2	T2	27,128	8,342	1,137	9,479	34.94
3	T3	23,070	5,759	0	5,759	24.96
4	T4	2,530	0	0	0	0
	Total	**63,640**	**14,101.00**	**1,959.20**	**16,060.20**	**25.24**

Table 13: Physical Progress in Manholes, Sewer Inlet and House Connection Chamber:

Physical Progress till January 2016						
S.N.	Description	Proposed Quantity (no)	Progress		Total to Date (no)	Progress (%)
			Up to Dec 2015 (no)	This Month (no)		
1	Manholes	2019	810	405	1,215	60.18
2	Sewer Inlet	3766	947	152	1,099	29.18
3	House Connection Chamber	5930	1108	96	1,204	20.30

Table 14: Physical Progress in Roads and Lanes:

Physical Progress till January 2016						
S.N.	Location	Proposed Length (km)	Progress		Total to Date (m)	Progress (%)
			Up to Dec 2015 (m)	This Month (m)		
1	R2,T1,T2, T3,T4	65	Sub Base=100m Sub-grade=100m	Sub Base=700m Subgrade=2 km	Sub Base=800m Sub-grade=2.1km	

Table 15: Physical Progress in Waste Water Treatment Plant (WWTP), Jatuwa:

Physical Progress till January 2016						
S.N.	Description	Proposed Quantity	Progress		Total to Date	Remarks
			Up to Dec 2015	This Month		
1	Anaerobic Pond	3 nos	3 (excavation)	0	3 (excavation)	
2	Facultative Pond	3 nos	2 (Excavation)	0	2 (excavation)	
3	River Training Work	600 m	600 m	0	600 m	
4	Boundary Wall		580 m	0	580 m	
5	Office cum Lab Building	1 no	1 no	0	1	
6	Workshop Building	1 no	1 no	0	1	
7	Generator / Changing House	1 no	1 no	0	1	

Table 16: Physical Progress in Production of Precast Items at Katahari:

Physical Progress till January 2016						
S.N.	Description	Unit	Progress		Total to Date (no)	Remarks
			Up to Dec 2015 (no)	This Month (no)		
1	Precast Slab	no	58,300	4,000	62,300	
2	Precuts	no	5,647	560	6,207	
3	Kerb Stone	no	6,292	790	7,082	
4	Manhole	no	837	112	949	
5	Sewer Inlet	no	997	62	1,059	
6	House Connection Chamber	no	1,129	31	1,160	

Table 17: Physical Progress in Production of RCC Pipes at Itahari:

Physical Progress till January 2016						
S.N.	Description	Diameter (mm)	Progress		Total to Date (no)	Remarks
			Up to Dec 2015 (no)	This Month (no)		
1	RCC Pipe	200	2103	14	2,117	
2	RCC Pipe	300	271	17	288	
3	RCC Pipe	350	179	7	186	
4	RCC Pipe	400	313	15	328	
5	RCC Pipe	450	80	0	80	
6	RCC Pipe	500	475	17	492	
7	RCC Pipe	600	832	14	846	
8	RCC Pipe	700	1200	29	1,229	
9	RCC Pipe	900	228	14	242	
10	RCC Pipe	1000	963	16	979	
11	RCC Pipe	1600	336	9	345	
	Total		**6980**	**152**	**7,132**	

Contractor's Manpower

Table 18: Contractor's key staffs in January 2016:

Designation	No	Remarks
Project / Contract Manager	1	
Planning Engineer/Construction Engineer	1	
Construction Engineer	1	
Site Engineers	5	
Quality Control Manager	1	
Office/Bill Engineer	1	
Junior Engineer	10	

Sub Overseers	6	
Safety Manager / Senior Site Supervisor	1	
Accountant / Office Manager	1	
Lab Assistant	3	
Store Keeper	4	
Light Drivers	6	
Machine Operator	14	
Site Supervisor	5	
Other Supporting Staff	18	
Skilled Labor at Site	9	
Unskilled Labor at Site	31	

Contractor's Equipment:

Table 19: Contractor's Equipment:

Equipment	No	Remarks
Excavator	7	
Back Hoe JCB	8	
Grader	1	
Crane / Teller	3	
Water Tanker	1	
Tractor	9	
Tipper	17	
Light Vehicle	6	
Motorbike	10	
Kerb Stone Machine Set	1	
Generator	4	
Welding Machine	3	
Diesel Tank with Pump	1	
Stand Drill Machine	1	
Gas Cutter Set	1	
Pipe Cutter	1	
Hand Grinder	1	
Plate Compactor	2	
Monkey Jumper	1	
Concrete Batching Plant	1	
Electric Vibrator	10	
Bar Bending Machine	3	
Bar Cutter Machine	3	
Transit Mixer	1	
Concrete Mixer (Hydraulic)	2	
Concrete Mixer (Manual)	6	
Asphalt Concrete Plant	1	
Asphalt Paver Machine	1	

7.2 Cumulative Progress (S Curve)

Contractor's Revised Cumulative Progress S-Curve (Based on Work Program Rev. No 03)

Item No.	Description	Amount (NRs)	Relative Weight in %	Year / Month	2013 Dec	Year 2014 Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Year 2015 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year 2016 Jan	Feb	Mar	Apr	May
1	Preliminary and General Works	16,850,000.00	0.795	Program	0.000	0.326	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.119
				Achieve	0.000	0.326	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Civil Works	1,972,492,008.90	93.08	Program	0.000	0.005	0.508	0.369	0.295	1.811	1.509	0.100	0.384	0.408	0.150	3.293	4.549	5.859	7.607	7.454	7.513	6.072	5.050	1.742	1.503	0.000	0.000	3.366	6.433	9.047	8.446	6.788	2.617	0.000
				Achieve	0.000	0.005	0.508	0.369	0.295	1.811	1.509	0.100	0.384	0.408	0.150	3.293	1.136	1.787	3.661	15.281	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Electro-mechanical Works	18,884,000.00	0.89	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.365	0.438	0.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	Provisional Items and Provisional Sum	63,741,517.00	3.01	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.197	0.197	0.197	0.065
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.068	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	Operation & Maintenance Equipment and Machinaries	34,450,000.00	1.63	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	Laboratary Equipment	6,000,000.00	0.28	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.174	0.109
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	Operation and Maintenance	6,000,000.00	0.28	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.283
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	Dayworks	637,000.00	0.03	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Total	2,119,054,525.90	100.00																															
Original Program		**%age**			0.347	0.074	3.181	6.282	7.931	3.017	2.219	1.212	0.476	2.710	3.643	3.662	3.700	4.435	4.401	4.460	4.456	4.401	3.802	1.168	3.018	3.658	4.413	3.645	3.597	4.707	4.728	3.150	2.891	0.616
		Cumulative %age			0.347	0.421	3.602	9.884	17.815	20.832	23.051	24.263	24.739	27.449	31.092	34.754	38.454	42.889	47.290	51.750	56.206	60.607	64.409	65.577	68.595	72.253	76.666	80.311	83.908	88.615	93.343	96.493	99.384	100.00
Revised Program-1		**%age**			0.000	0.286	0.449	0.329	2.288	6.606	4.806	1.003	0.183	0.576	1.416	8.074	9.810	9.883	10.666	10.056	9.725	9.865	7.445	2.284	0.247	0.159	0.145	0.145	0.145	0.145	0.644	0.601	1.227	0.787
		Cumulative %age			0.000	0.286	0.735	1.064	3.352	9.958	14.764	15.767	15.950	16.526	17.942	26.016	35.826	45.709	56.375	66.431	76.156	86.021	93.466	95.750	95.997	96.156	96.301	96.446	96.591	96.736	97.380	97.981	99.208	100.00
Revised Program-2		**%age**			0.000	0.286	0.449	0.329	0.265	1.575	1.314	0.097	0.343	0.363	0.140	2.855	4.760	6.070	8.630	8.478	7.724	6.654	5.699	2.040	1.581	0.079	0.079	3.577	6.643	9.257	9.423	7.700	3.002	0.577
		Cumulative %age			0.000	0.286	0.735	1.064	1.329	2.904	4.218	4.315	4.658	5.021	5.161	8.016	12.776	18.845	27.476	35.953	43.677	50.331	56.030	58.070	59.651	59.730	59.809	63.386	70.029	79.286	88.709	96.409	99.411	99.988
Revise Program 3		**%age**			0.000	0.286	0.449	0.329	0.265	1.575	1.314	0.097	0.343	0.363	0.140	2.855	0.991	2.712	3.232	3.939	2.764	2.246	5.421	0.302	0.302	7.530	3.600	2.320	10.210	11.470	11.165	10.790	10.360	2.630
		Cumulative %age			0.000	0.286	0.735	1.064	1.329	2.904	4.218	4.315	4.658	5.021	5.161	8.016	10.770	12.570	17.570	21.820	25.250	27.850	34.317	34.317	34.317	41.847	45.447	47.767	58.037	69.507	80.672	91.462	97.820	100.000
Achievement		**%age**			0.000	0.331	0.520	0.381	0.307	1.823	1.521	0.113	0.397	0.421	0.162	3.305	1.148	3.139	3.742	4.560	3.200	2.600	4.540	0.350	0.302	0.000	0.000	0.000	0.623	0.700	0.000	0.000	0.000	0.000
		Cumulative %age			0.000	0.331	0.851	1.232	1.539	3.362	4.883	4.996	5.392	5.813	5.975	9.280	10.770	12.570	17.570	21.820	25.250	27.850	34.317	34.317	34.317	34.317	34.317	34.317	34.940	35.640				

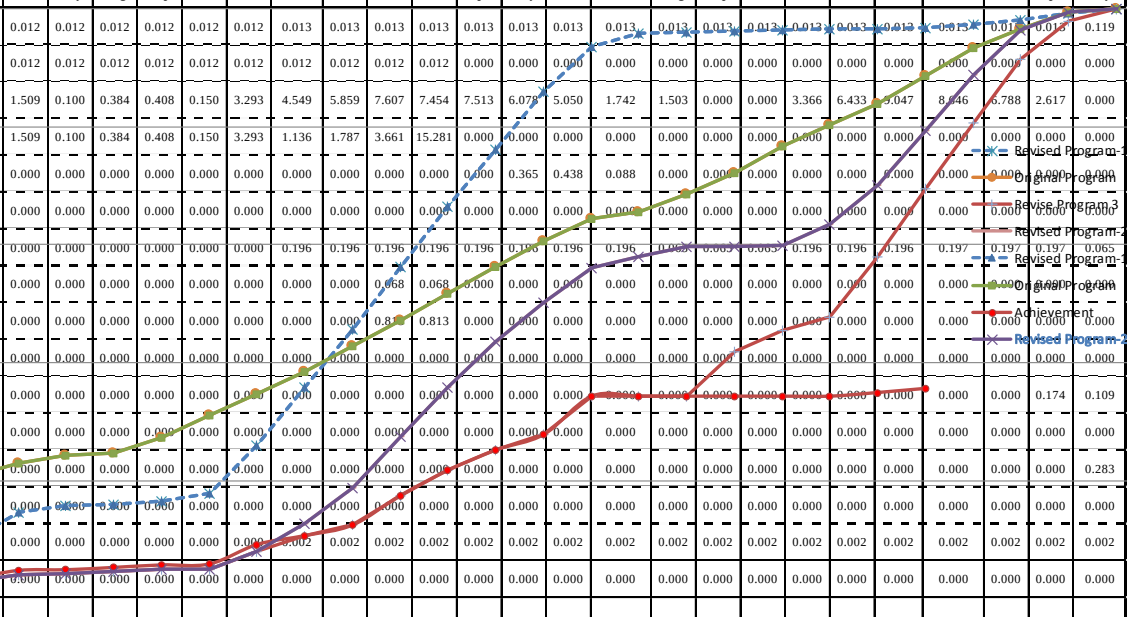


Figure 7: S- Curve of Physical Progress (based on rev. no. 03, which is under review)

DETAILS OF SAFEGUARD ACTIVITIES (SOCIAL, ENVIRONMENTAL AND RESETTLEMENT ACTIVITIES AND ISSUES)

This report records the project implementation performance of social safeguard aspect for the duration of Novem**ber 2015** and highlights the key activities undertaken during the period. The activities on the social development during the period are summarized below:

8.1 SOCIAL ISSUES

8.1.1 OPERATIONAL GUIDELINES FOR COMMUNITY MOBILIZATION AND IMPLEMENTATION OF CDP

- **VISIT, INTERACTION AND CONSULTATION WITH COMMUNITY PEOPLE**

37. Social Development Specialist (SDS) of the DSC is closely monitoring the social issues resulted due to the project activities. Visiting and interacting with people, Tole Lane Organizations (TLOs) and formal and informal consultation meetings are going on in this regard.

The project is regularly disseminating the information and message to community people about the project features, its purpose, methods of use and functionality of infrastructure under construction by the project through such consultation meetings. These meetings are fruitful to provide prior information regarding the project construction activities before execution at the community level. It is an appropriate platform to interact and make dialogue between 4 Cs (The Client, Consultant, Contractor and Community) about the project features, prime objectives, purpose, work methodology and potential threats/ cautions to be adopted during the project implementation.

The visits, meetings and consultations with community people at TLOs have provided many opportunities to obtain people's views and perception towards the project. Community people of those particular localities used to discuss extensively in the project features and have been provided some suggestions for efficient carryover of the project components and assured cooperation and coordination in the project execution in their localities.

Social Development Specialist (SDS)/ DSC along with of PIU, NGO staffs have been actively participated in the meetings. SDS/DSC as usual facilitate the consultation meetings, support to prepare meeting minutes and obtain decisions.

Apart from of this, many field visits and observations with community are also important to disseminate project message and monitor project features in the community. Monitoring visits along with Project Manager (PM), TL/DSC and TL/CDP to the core project area, community development program area and construction sites have been beneficial to make insight to the project progress, its effectiveness and challenges.

- **SAFEGUARD DESK**

38. A Safeguard Desk established in the project has been effective in planning, monitoring and follow up of all social development/ safeguard issues including the resettlement plan. It has been started as a functional mechanism consisting of PIU, NGO and DSC for this purpose. The desk consists of the Social Development Chief of PIU, Team Leader of CDP/ NGO and SDS of DSC with close consultation and guidance of PM/ PIU. It is in compliance with the Aide Memoire of last ADB Mission (21 April-12 May 2014). It is decided that the desk will review, update and discuss the progress, issues, constraints and challenges of social aspects, Community Development Program and implementation of resettlement plan as well as monitoring of social development activities.

- **ToT on Gender and Social Inclusion (GESI) Mainstreaming**

39. The project has been envisaged a 'Training of Trainers (ToT) on GESI Mainstreaming' for Biratnagar Sub Metropolitan City (BSMC) Office and STIUEIP project staff. The Aide Memoir Report of the ADB Review Mission has also noted about the training to be conducted in Biratnagar for the staff of municipality and related agencies. The Mission has recommended for conducting GESI training relating to urban infrastructure development to staff of municipality, municipal steering committee, PIU, local stakeholder agency and make them accountable for the better results. In line with this, the project is going to conduct Gender and Social Inclusion (GESI) Sensitization Training when it is approved. The revised ToT has been submitted to PIU, STIUEIP, Biratnagar incorporating the comments from PMSC and PCO.

Safeguard desk members discussed and reviewed the proposed 'ToT on GESI Mainstreaming' proposal. Social Development Specialist (SDS) of DSC has reviewed the detail proposal and adjusted budget accordingly for the 'Training of Trainers (ToT)' model. The training arrangement will be decided after the approval of this proposal by the project authority. Primarily it will be a 5 days training focusing mainly on Gender and Social inclusion Action Plan (GESIAP) comprising other project elements. About 35 participants from Biratnagar Sub Metropolitan City (BSMC) office and project staffs will participate in the training.

- **Update of Small Facilities Construction and other Activities in CDP/STIUEIP**

40. The latest safeguard desk meeting has reviewed all ongoing and completed small facilities infrastructure and other activities implemented under the Community Development Program (CDP), a component of STIUEIP. It provided a common understanding and status information of infrastructures and activities under the CDP program to all safeguard desk members.

A glimpse of community development program has been obtained by the presentation in the appraisal and interaction meeting. Total 7,417.36 m. roads and 13,246.32 m. drains are under construction through small facilities infrastructure by CDP/STIUEIP. Regarding on the household toilet, total 458 nos. such toilets has been built by May 2015. Similarly 10 hand pumps have been installed, 45 hands pump platforms built and 5 public toilets are complete.

- **Employment in Project**

41 The core activities of the project i.e. sewerage pipe laying, drain construction and road/ lane improvement provided employment to about 250 in a day this month. The employed human resources varied from skilled engineer/ project manager to general labor, supervisor, (sub) overseers and mechanics. However, a very few women (16%) are working in the construction activities as skilled and unskilled labor but they are paid equal to men for similar type of work. Three women Assistant Sub-Engineers are also working at construction sites after completing OJT (on the job training) successfully at the same sites from different CTEVT affiliated institutes of nearby districts. The contractor has been suggested to increase the work opportunity to women in different types of works.

- **General**

42. Sewer/ Drainage lines are being laid in the public rights of way (RoW). During construction, if any trees or crops or structures demolished, it shall be properly addressed with compensation. Private individuals or shopkeepers will also be looked into if their livelihood is affected by the disturbance during constructions/ pipe laying works.

Apart from this, the project did not encounter any resettlement or re-location and any compensation issue in the month November 2015.

9 KEY ISSUES AND REMARKS / REASON FOR DEVIATION (IF ANY) AFFECTING PROGRESS

43. Following are the key issues affected in progress:

- The construction activities at limited sites have been resumed from mid December 2015.
- The production of NP3 RCC Hume pipe production at Itahari has also been partially affected due to above reasons.
- Partial fuel supply to the Contractor from NOC
- Madhesh strike is not fully removed

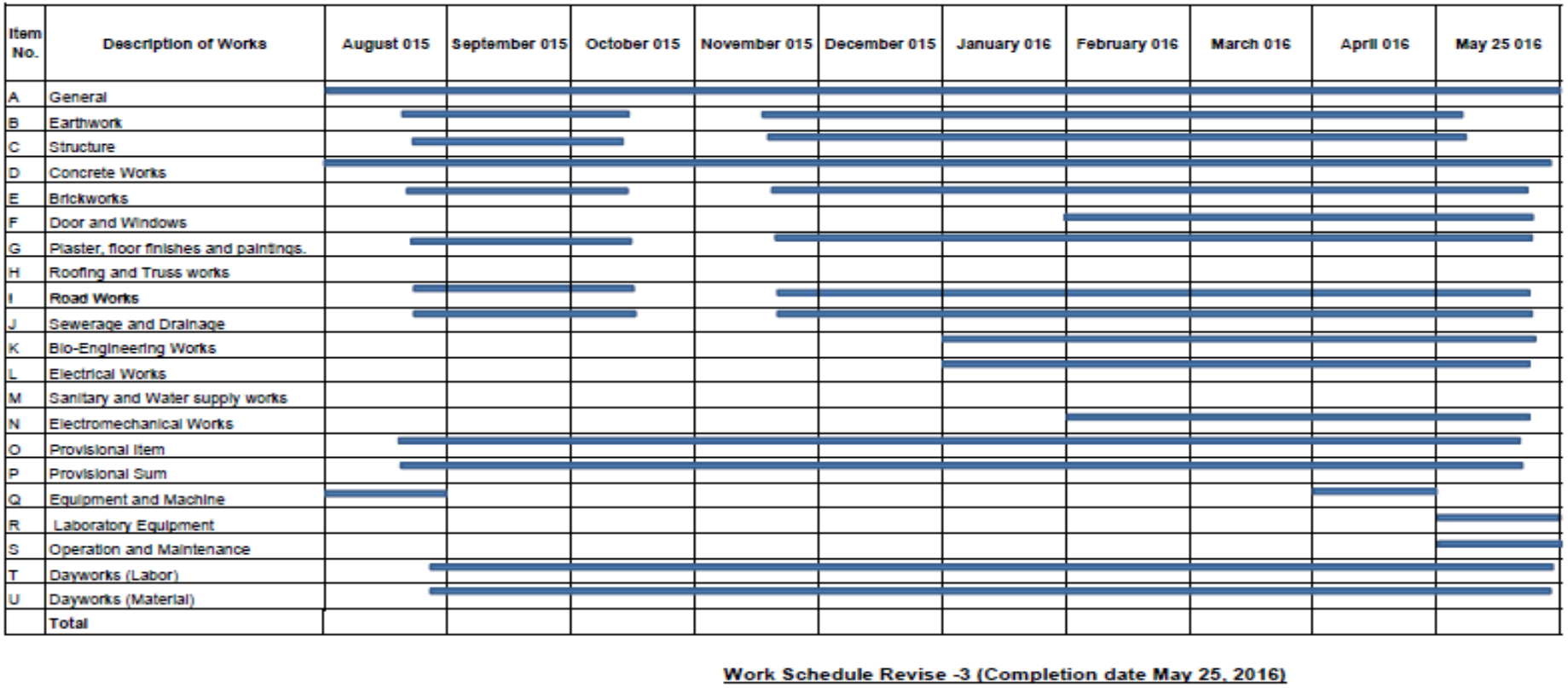
10 WORK PLAN FOR THE NEXT MONTH

44. Following are the Contractor's works in the next month **(Please refer to the contractor's progress report for quantitative plan works for next month) the revised work program no 03 is under review:**

- Continuation of R2 Road including footpath
- Continuation of road side drain at sewer lines
- Continuation of storm water drains (B1, B2, B3, CN2, CN3, S9, S5 and Rani Area)
- Continuation of sewer lines with installation of manholes, sewer inlets and house connection chambers
- Commencement of sump well of WWTP
- Production of precast RCC items (RCC pipe, kerb stone, manhole, sewer inlet, house connection chamber, drain cover slab etc)
- Suitability tests and routine tests of construction materials at Lab and at site.

ANNEX-1: Work Schedule (Rev.03) which is under review.

Note: Please refer to the contractor's progress report for detail and complete work program.



Item No.	Description of Works	August 015	September 015	October 015	November 015	December 015	January 016	February 016	March 016	April 016	May 25 016
A	General										
B	Earthwork										
C	Structure										
D	Concrete Works										
E	Brickworks										
F	Door and Windows										
G	Plaster, floor finishes and paintings.										
H	Roofing and Truss works										
I	**Road Works**										
J	Sewerage and Drainage										
K	Bio-Engineering Works										
L	Electrical Works										
M	Sanitary and Water supply works										
N	Electromechanical Works										
O	Provisional Item										
P	Provisional Sum										
Q	Equipment and Machine										
R	Laboratory Equipment										
S	Operation and Maintenance										
T	Dayworks (Labor)										
U	Dayworks (Material)										
	Total										

Work Schedule Revise -3 (Completion date May 25, 2016)

ANNEX2: PHOTOGRAPHS – January 2016

Sub Base laying at R2 Road

Footpath Under Construction at R2 Road

Formwork for Road Side Drain at Sewer Lines

Concrete Road Side Drain at Sewer Lines

RCC Drain at S5, Jatuwa

Brick Masonry Drain at Rani

RCC Drain at B1

Brick Masonry Drain at B2

RCC Drain at B3

Production of Precast Items at Contractor's Yard, Katahari

Compressive Strength Test at Lab

Three Edge Bearing Test of RCC Hume Pipes at Itahari

ANNEX-3: FINANCIAL STATUS (DETAILS OF SUBMITTED INVOICES AND RECEIPT OF PAYMENTS WITH KEY DATES)

Invoice #	For Month	Invoice Amount including VAT		Received Amount		Remarks
Invoice 01	Advance	NRs. 9,866,160.40	USD 104,621.20	NRs. 9,866,160.40	USD 104,621.20	Received
Invoice 02	Inception Report	NRs. 1,947, 420.08	USD 52,721.00	Rs. 1,947, 420.08	USD 52,721.00	Received
Invoice 03	Jan+Feb, 2012-months Invoice	NRs. 2,387,262.11	USD 4, 243.15	NRs.2,329,310.81	USD 4, 243.15	Received
Invoice 04	March, 2012	NRs. 537,546.65	USD 2,276.95	NRs. 351,430.00	USD 2,276.95	Received
Invoice 05	April, 2012	NRs. 396,065.00		NPR 267,810.00		Received
Invoice 06	Vehicle Invoice	NRs. 8,000,000.00		NRs. 8,000,000.00		Received
Invoice 07	May- month Invoice	NRs. 502,324.55		NRs 250,860.00		Received
Invoice 08	June-month Invoice	NRs. 464,430.00		NRs 262,160.00		Received
Invoice09	Interim Report		USD 70,295.04		USD 70,295.04	Received

Invoice #	For Month	Invoice Amount including VAT		Received Amount		Remarks
Invoice 10	Interim Report	NRs. 2,596,560.10		NRs 2,596,560.10		Received
Invoice 11	April-June,2012		USD 1,270.00		USD 1,270.00	Received
Invoice 12	July-month Invoice		USD 2,015.00		USD 2,015.00	Received
Invoice 13	Survey Invoice I	NRs. 2,166,775.00		NRs. 2,166,775.00		Received
Invoice 14	July-month Invoice	NRs. 669,751.00		NRs. 321,146.00		Received
Invoice 15	August month Invoice	NRs. 337,870.00	USD 000.00	NPR 314,140.00		Received
Invoice 16	September month Invoice	NRs. 328, 830.00	USD 3, 361.75	NRs. 314,140.00	USD 1,854.75	Received
Invoice 17	Survey Works Invoice II	NRs. 1,166,775.00		NRs. 1,166,775.00		Received
Invoice 18	Monthly Invoice Oct.12	NRs. 357,080.00	USD 2,895.00	NRs. 324,310.00	USD 2,895.00	Received
Invoice 19	Environmental Base line survey	NRs.144,634.35		NRs. 125,769.00		Received
Invoice 20	Monthly Invoice Nov.12	NRs. 331,090.00	US$. 4,407.00	NRs. 324,310.00	USD. 4,407.00	Received
Invoice 21	Monthly Invoice-Dec.2012	NRs. 449,175.00	US$ 1,909.70	Nrs. 350,865.00	USD 1,909.70	Received

Invoice 22	Draft Report Invoice	NRs. 5,193,120.21	US$140,590.08	NRs. 5,193,120.21	USD 91,587.31	Received
Invoice 23	Geotechnical Investigation Invoice	NRs. 191,741.23		NRs.166,731.00		Received
Invoice 24	Vehicle hard top Invoice	NRs. 707,125.70		NRs. 707,125.70		Received
Invoice 25	Monthly Invoice Jan13	NRs. 410,868.00	USD 4,327.90	NRs. 380,923.00	USD 3103.40	Received
Invoice 26	Monthly Invoice Feb13	NRs.324,310.00	USD 3,051.00	NRs.324,310.00	USD 2,203.50	Received
Invoice 27	Monthly Invoice Mar 13	NRs. 404,467.68	USD 4553.90	NRs. 361,600.00	USD 4553.90	Received
Invoice 28	Final Report Invoice	NRs. 3,245,700.13	USD 87,868.80	NRs. 3,245,700.13	USD 85,350.48	Received
Invoice 29	Monthly Invoice April 13	NRs. 340,695.00	USD 1,322.10	NRs. 324,310.00	USD 881.40	Received
Invoice 30	Monthly Invoice May 13	NRs. 671,951.00	USD 4,4435.25	NRs. 576,700.02	USD 4,4435.25	Received
Invoice 31	Monthly Invoice June 13	NRs. 1,107,583.06	USD 2,203.50	NRs.448,376.81	USD 2,203.50	Received
Invoice 32	Additional Survey	NRs. 1,050,052.00				Not received
Invoice 33	Monthly Invoice July 13	NRs. 589,490.49	USD 1,542.45	NRs 481,693.01	USD 1,101.75	Received

Invoice 34	Monthly Invoice August 13	NRs. 701,094.94	USD 00.00	NRs 629,499.89	USD 0.00	Received
Invoice 35	Monthly Invoice Sept. 13	NRs. 424,773.78	USD 00.00	NRs 424,772.45	USD 0.00	Received
Invoice 36	Monthly Invoice Oct. 13	NRs. 458,661.35	USD 00.00	NRs 408,710.78	USD 0.00	Received
Invoice 37	Monthly Invoice Nov. 13	NRs. 450,085.78	USD 0.00	NRs 431,600.15	USD 0.00	Received
Invoice 38	Monthly Invoice Dec. 13	NRs. 501,084.94	USD 00.00	NRs 481,693.01	USD 0.00	Received
Invoice 39	Monthly Invoice Jan. 2014	NRs. 695,501.44	USD 00.00	NRs. 609,960.44	USD 0.00	Received
Invoice 40	Monthly Invoice Feb. 2014	NRs. 613,180.94	USD 00.00	NRs. 613,180.94	USD 0.00	Received
Invoice 41	Monthly Invoice Mar. 2014	NRs.1,308,022.46	USD 00.00	NRs. 961,794.30	USD 0.00	Received
Invoice 42	Monthly Invoice Apr. 2014	NRs. 861,039.32	USD 00.00	NRs. 812,918.13	USD 0.00	Received
Invoice 42	Geotechnical Inv. II	NRs. 549,989.85	USD 00.00	NRs. 546,232.96	USD 0.00	Received
Invoice 43	Monthly Invoice May 2014	NRs. 1,170,291.64	USD 00.00	NRs. 1,119,306.04	USD 0.00	Received
Invoice 44	Monthly Invoice June 2014	NRs.1,163,214.09	USD19,313.42	NRs. 1,098,669.08	USD 15,636.94	Received

Invoice 45	Monthly Invoice July 2014	NRs. 854,199.00	USD18,465.92	NRs. 812,253.40	USD 15,636.94	Received
Invoice 46	Monthly Invoice August 2014	NRs 865,951.00	USD 0.00	NRs. 819,485.40	USD 0.00	Received
Invoice 47	Monthly Invoice September 2014	NRs 777,343.07	USD 0.00	NRs. 647,031.02	USD 0.00	Received
Invoice 48	Monthly Invoice October 2014	NRs 841,778.13	USD 0.00	NRs. 736,326.53	USD 0.00	Received
Invoice 49	Monthly Invoice November 2014	NRs 1,306,536.89	USD 0.00	NRs. 1,020,026.24	USD 0.00	Received
Invoice 50	Monthly Invoice December 2014	NRs 1,348,791.74	USD 0.00	NRs. 1,192,968.59	USD 0.00	Received
Invoice 51	Monthly Invoice Jan 2015	NRs 1,255,351.08	USD 0.00	NRs. 1,184,301.04	USD 0.00	Received
Invoice 52	Monthly Invoice Feb 2015	NRs 1,319,642.66	USD 0.00	NRs. 1,033,834.74	USD 0.00	Received
Invoice 53	Monthly Invoice Mar 2015	NRs 2,414,019.91	USD 0.00	1,869,619.63	USD 0.00	Received
Invoice 54	Monthly Invoice Apr 2015	NRS 1,483,793.91	USD 0.00	1,176,545.27	USD 0.00	Received
Invoice 55	Monthly Invoice May 2015	1,563,243.36	USD 0.00	1,227,869.30	USD 0.00	Received
Invoice 56	Monthly Invoice Jun 2015	1,343,598.66	USD 0.00	1,058,694.74	USD 0.00	Received

Invoice 57	Monthly Invoice Jul 2015	1,583,240.42	USD 0.00	1,240,241.11	USD 0.00	Received
Invoice 58	Monthly Invoice Aug 2015	1,414,877.99	USD 0.00	1,117,077.09	USD 0.00	Received
Invoice 59	Monthly Invoice Sept 2015	1,263,576.91	USD 0.00	995,715.95	USD 0.00	Received
Invoice 60	Monthly Invoice Oct 2015	1,226,291.96	USD 0.00			Not received
Invoice 61	Monthly Invoice Nov 2015					
Invoice 62	Monthly Invoice Dec 2015					
Invoice 63	Monthly Invoice Jan 2016					

ANNEX-4: STATUS OF ACTIONS AGREED WITH PREVIOUS ADB LOAN REVIEW MISSION

S. No.	Agreed Items in ADB Review Mission with DSC on 2-4 December 2014	Status	Responsibility
1	Updated Semi-Annual Resettlement and Social Aspect Report	Report Submitted on 14 January 2015	DSC/PMSC
2	DSC will review its construction supervision plan (including international experts inputs) against the contractors approved scheduled and submit it to PIU.	Draft Plan submitted	DSC
3	Submission of implementation status of EMP to ADB in quarterly basis	Report Submitted till March 2015 and additional Semi-Annual Oct 2014 -March 2015. Updated Quarterly Report of Apr- June 2015 is due and will be submitted soon.	DSC/PMSC

ANNEX-5: PROFESSIONAL INPUT AS PER CONTRACT VS INPUT USED TILL THIS REPORTING PERIOD

S.No.	Expert / Position	Total Man Months Input (as per Agreement)			Man Months Used in 2012/013/014/2015			Balance
A	Professional Staff	Design	Construction	Total	Up to Sep. 2015	Oct 2015	Total	
A1	**International Professional Staff**							
1	Sewerage and Drainage Engineer	8	4	12	7.37	0.00	7.37	4.63
2	Sewage Treatment Specialist (1 day at May, 2014)	5	4	9	6.01	0.00	6.01	2.99
3	PPP Specialist	2		2	2.00	0.00	2.0	0.00
A2	**Domestic Professional Staff**							
4	Team Leader/ S-D Engineer	12	24	36	35.23	1.00	36.23	0.77
5	Sewage Treatment Specialist	8	12.5	20.5	11.0	0.00	11.0	15.00
6	Procurement Specialist	5	2	7	8.75	0.00	8.75	(1.75)
7	DTL/ Quantity Surveyor	9		9	10.0	0.00	10.0	(1.00)
8	Urban Planner	4	2	6	5.0	0.00	5.0	1.00
9	Financial Expert	5		5	6.0	0.00	6.0	(1.00)

S.No.	Expert / Position	Total Man Months Input (as per Agreement)			Man Months Used in 2012/013/014/2015			Balance
10	Institutional Development Specialist	2	3	5	2.0	0.00	2.0	3.00
11	PPP Specialist	3		3	3,0	0.00	3,0	0.00
12	Roads Specialist	4	8	12	8.03	0.00	8.03	3.97
13	Civil and Structural Specialist	6	2	8	7.95	0.00	7.95	0.05
14	Electrical Engineer	3	1	4	3.50	0.00	3.50	0.50
15	Mechanical Engineer	3	1	4	3.90	0.00	3.90	0.10
16	Construction Management Specialist		10	10	3.83	1.00	4.83	6.17
17	Environmental Specialist	8	12	20	15.59	0.0	15.09	4.91
18	Social Development Specialist	8	15	23	21.00	0.00	21.00	2.00
19	Construction Supervision Engineer		30	30	22.00	1.00	23.00	8.00
20	Asst. Construction S Engineer- 1		30	30	16.50	1.00	17.50	13.50
	Asst. Construction S Engineer- 2		30	30	15.77	0.00	15.77	14.23
21	Senior Statistician	4		4	4.00	0.00	4.00	0.00
22	Geologist	1		1	1.00	0.00	1.00	0.00

S.No.	Expert / Position	Total Man Months Input (as per Agreement)			Man Months Used in 2012/013/014/2015			Balance
23	Biologist	1		1	1.00	0.00	1.00	0.00
24	Geo-technical Engineer	1		1	2.40	0.00	2.40	(1.40)
25	GIS Expert	2		2	4.00	0.00	4.00	(2.00)
26	Senior Surveyor	2		2	2.00	0.00	2.00	0.00
	Network Modular				8.00	0.00	8.00	(8.00)
	Hydrologist				4.00	0.00	4.00	(4.00)
A-3	Support Staff							
27	Junior Engineer-1			49	46.00	1.00	47.00	3.00
	Junior Engineer-2			49	46.00	1.00	47.00	3.00
	Junior Engineer-3			24	13.00	1.00	14.00	11.00
	Junior Engineer-4			49	9.33	1.00	10.33	39.67
	Junior Engineer-5			49	6.70	1.00	7.70	42.30
	CAD Operators			20	0.00	0.00	0.00	20.00
28	Accountant / Office Manager			49	46.00	1.00	47.00	3.00

S.No.	Expert / Position	Total Man Months Input (as per Agreement)			Man Months Used in 2012/013/014/2015			Balance
29	Secretary / Computer Operator			49	44.25	1.00	45.25	4.25
30	Driver-1			49	38.27	1.00	39.27	10.73
	Driver-2			49	37.10	1.00	38.10	11.90
30	Office Assistant			49	44.50	1.00	45.50	4.50

NOTE: THE INPUTS ARE SAME AS IN OCTOBER 2015, THIS IS UNDER REVIEW FOR VARIATION ORDER AND WILL BE UPDATED SOON.

ANNEX-6: MINUTES OF MEETING – JANUARY 2016

List of Minute of Meeting:

ANNEX-7: LABORATORY TEST RESULTS OF JANUARY 2016

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitan City

Monthly Laboratory Testing Report

STIUEIP

(For The Month Of JANUARY 2016)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
1	Granular Material/Gravel material	Sieve analysis	2	0	0	0		2	
		MDD & OMC	2	0	0	0		2	
		C.B.R	2	0	0			2	
		Field Density	0	0	0	0		0	
2	SUB GRADE Preparation asPere Specifacation	MDD & OMC	4	1	1	0		5	
		Field density	10	19	19	0		29	
		C.B.R	5	1	1	0		6	
3	BRICK WORK	Water Absorption	185	0	0	0		185	
	Required Test	Compressive Strength	1333	135	135	0		1468	
4	Masonry Mortar (CM 7.05)	Compressive strength	1452	54	54	0		1506	
5	CONCRETE AGGREGATE								
	Coarse aggregate (20 mm)	Sieve analysis (20 mm)	95	36	36	0		131	
		LAA	60	13	13	0		73	
		Specific Gravity	16	0	0	0		16	
		FI / EI	82	14	14	0		96	
		ACV	89	11	11	0		100	
		SSS							
		Unit weight	2	0	0	0		2	
	Fine aggregate (Sand)	Sieve analysis	86	35	35	0		121	
		Sand Equivalent Test(S.E)							
		Unit weight	2	0	0	0		2	
6	CONCRETE MIX DESIGN	Concrete mix Design	75	0	0	0		75	
	ConcreteM15/20,M20/20	Compressive strength	738	0	0	0		738	
	M25/20,&M30/20	Slump test	72	0	0	0		72	
7	CEMENT Required Test								
	OPC Cement	Setting time	40	12	12	0		52	
		Normal Consistency	40	12	12	0		52	
		Compressive strength	38	0	0	0		38	
8	CONCRETE								
	Work Mix Test M15,M20,M25,M30	Compressive strength	2779	115	115	0		2894	
9	REINFORCEMENT	Required Test							8,10,12,16
	Reinforcement tore steel	As per Specifacation	5	0	0	0		5	20,25 mm dia
10	PAVEMENT MATERIALS								
	Sub Base Materials	Sieve analysis	5	12	12	0		17	
		MDD & OMC	2	1	1	0		3	

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

(For The Month Of JANUARY 2016)

STIUEIP

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
		PI	0	0	0	0		0	
		CBR	2	1	1	0		3	
		Field density	0	20	18	2		20	
11	Back Fill Material	Sieve analysis							
		MDD & OMC							
		Field density							
		CBR							
12	CS Base	Sieve analysis	2	2	2	0		4	
	Crushed Stone Base	MDD & OMC	2	1	1	0		3	
	Material Laying	C.B.R	2	1	1	0		3	
		FI + EI	1	1	1	0		2	
		LAA	1	2	2	0		3	
		SSS	0	0	0	0		0	
		ACV/AIV	1	1	1	0		2	
		Field Density							
13	ASHPHALT CONCRETE	Sieve analysis							
	Combine Mixed	FI / EI							
		ACV							
	Individual Ca&FA Test	LAA							
		Unit weight							
		SSS							
14	BITUMEN TEST	Penetration at25.c	2	0	0			2	
	80/100 Bitumen	Softeing point(ring ball)	2	0	0			2	
	As per DORbook section	Flash point/Fire Point	2	0	0			2	
	600 Table 6.14/is 73	Ductility at25.c	2	0	0			2	
		Specific at 25.c	2	0	0			2	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

(For The Month of JANUARY 2016)

STIUEIP

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommanded		
		Water Content	2	0	0			2	
		Loss on Heating for 5 hrs	2	0	0			2	
		Pen-of residue afte loss on Heating		0	0			2	
		Solubility in tricloroethylene	2	0	0			2	
15	Humpipe Test	Three Edge Bearing Load Test	2	5	5			7	200mm to 1600mm 1 each
16	Marshall Stability Test	Bulk density							
		Stability							
		Flow							
		Air voides							
		Bitumen extraction							
		Voids in Mineral Agg							
		Job mix in AC Plant							
		Core Field Density							
17	BITUMEN SPREAD TEST								
	Prime coat	Application rate							
	Tack coat	Application rate							
18	Machines/Equipment								
	Caliberation of compressive Testing machine	1000KN Manuall	2	0	0			2	
		500 KN Manuall	2	0	0			2	
19	MISCELLANEOUS								
	G.I Wire(Gabion Boxes)		5	0	0			5	
	Factory Test Report of Cement		8	0	0			8	
	Factory Test Report of Iron Steel		4	0	0			4	
	Factory Test Report of 80/100 Bitumen		2	0	0			2	
	Factory Test Report of UPVC/HDP Pipe		2	0	0			2	
	UPVC/HDP Pipe Test Result		2	0	0			2	

MDD/OMC = Max Dry Dennsity

Optimum Moisture Content

SSS = Sodium Sulphate Soundness

ACV = Aggregtae Crushing Value

CBR=California Bearing Ratio

LAA = Los Angeles Abrasion

SE=Sand Equivqlent

AIV=Aggregate Impact Value

JMC=Job Mix Formula

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by C.S.E

Checked by Junior Engineer

Consultant Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Prepaid by G.C Manager

Contractors Reps

ANNEX-8: CONTRACTOR'S PROGRESS REPORT- JANUARY 2016