



**Government of Nepal
Ministry of Urban Development
Melamchi Water Supply Development Board**

MONTHLY REPORT NO. 43

February 2014



Prepared on behalf of Melamchi Water Supply Development Board by: Project Management Consultancy
Melamchi Water Supply Project
ADB LOAN NO: 1820 NEP



Government of Nepal
Ministry of Urban Development
Melamchi Water Supply Development Board
Monthly Progress Report No.43
February-2014.

Captions of the photographs on the cover page

1. Preparation for foundation of Gabion wall at Ch 5+200 at Sindhu Adit Access Road.
2. Fuel tanks installed at Gyalthum Adit Site.
3. Roller at work at Ch 7+000. Of Sindhu Adit Access Road.
4. Dismantling of rails inside tunnel at Sindhu Adit.
5. Ventilation installation at Sindhu Adit Portal.
6. Dozer at work for leveling of the dumping site ground at Sindhu Adit.

Prepared on behalf of Melamchi Water Supply Development Board: by Project Management Consultancy
Melamchi Water Supply Project
ADB LOAN No. 1820 NEP (SF)

Table of Contents

A. EXECUTIVE SUMMARY.....	1
B. INFRASTRUCTURE DEVELOPMENT	7
1.MAIN ACCESS ROAD (MAR).....	7
2.UPGRADING OF ACCESS ROADS (UAR)	7
3.CONSULTANCY SERVICES FOR CONSTRUCTION SUPERVISION OF UAR/02.	8
4.ADIT ACCESS ROADS	8
5.TUNNEL AND HEADWORK	8
5.1 ACTUAL PROGRESS DURING REPORTING PERIOD	11
5.1.1 GENERAL ACTIVITIES	11
5.1.1.1 GUARANTEES AND INSURANCES	11
5.1.1.2 ROAD MAINTENANCE.....	12
5.1.1.3 HEALTH SERVICES.....	15
5.1.1.4 CAMPS	15
5.1.1.5 VEHICLES.....	17
5.1.2 HEADWORKS.....	17
5.1.2.1 ACCESS ROAD.	17
5.1.2.2 CONCRETE WORKS.....	17
5.1.2.3 HEADWORKS BRIDGE	17
5.1.2.4 OTHER CIVIL WORKS	17
5.1.3 AMBATHAN ADIT	17
5.1.3.1 FLUSHING TUNNEL.....	17
5.1.3.2 WATER TUNNEL	17
5.1.3.3 SPOIL TIP AND LANDSCAPING	17
5.1.3.4 AMBATHAN BRIDGE	17
5.1.4 GYALTHUM ADIT	17
5.1.4.1 ADIT TUNNEL.....	17
5.1.4.2 WATER TUNNEL	17
5.1.4.3 SPOIL TIP AND LANDSCAPING	17
5.1.4.4 CYCLE TIME	17
5.1.5 SINDHU ADIT	17
5.1.5.1 WATER TUNNEL	17
5.1.5.2 SPOIL TIP AND LANDSCAPING	17
5.1.5.3 CYCLE TIME	17
5.1.6 SUNDARIJAL OUTLET	17
5.1.6.1 PORTAL AND TUNNEL	17
5.1.6.2 SPOIL TIP AND LANDSCAPING	18
5.1.6.3 CYCLE TIME	18
5.1.7 HYDRAULIC STEELWORKS.....	18
5.1.7.1 DESIGN AND SUPPLY	18
5.1.7.2 ERECTION	18
5.1.8 PERMANENT CAMP HEAD WORKS	18
5.1.8.1 HOUSES	18
5.1.8.2 POWER SUPPLY	18
5.2 PAYMENTS TO THE CONTRACTOR.....	18
5.2.1 MONTHLY STATEMENT AND PAYMENT CERTIFICATES.....	18
5.2.2 VARIATIONS.....	18
5.2.3 CLAIMS	18
5.3 DESIGN.....	18
5.3.1 DSC DESIGNS	18
5.3.2 CONTRACTOR'S DESIGNS	18

5.4 QUALITY CONTROL	19
5.4.1 CONTRACTOR'S QUALITY CONTROL.....	19
5.5 SAFETY	21
5.5.1 WORK SAFETY.....	21
5.5.3 PERIOD HEALTH CHECK UP.....	21
5.5.4 REGULAR HEALTH CHECK UP OF THE WORKERS	21
5.6 ENVIRONMENT	21
5.6.1 WORK SITES ENVIRONMENT	21
5.6.2 CAMP SITES ENVIRONMENT	21
6.TUNNEL DESIGN AND SUPERVISION CONSULTANTS	21
6.1 DESIGN.....	21
6.2 SUPERVISION	22
6.3 PAYMENTS TO THE CONSULTANT (DSC).....	30
6.4 CONSULTANT'S PERSONNEL	31
7.CONSTRUCTION OF CAMP AT MELAMCHI PUL BAZAR(CONTRACT PACKAGE II)	31
8.DESIGN SUPERVISION CONSULTANT FOR WATER TREATMENT PLANT (NJS).....	31
9.WATER TREATMENT PLANT CONSTRUCTION	31
10. PROJECT MANAGEMENT CONSULTANT (PMC) III	32
C. CRITICAL PATH PROJECT ACTIVITIES	33
D. UPDATED SCHEDULE	33
E. SOCIAL AND ENVIRONMENTAL SUPPORT	33
1. ACTIVITIES AND PROGRESS	35
1.1 SOCIAL UPLIFT AND CAPACITY BUILDING	35
1.2 PUBLIC RELATION.....	42
1.3 ENVIRONMENT MANAGEMENT	43
1.4 RESETTLEMENT	50
F. ACCOUNTS AND DISBURSEMENTS.....	50
1 IMPREST FUND STATUS.....	52
2 DISBURSEMENTS.....	52
3 OTHER ACTIVITIES.....	52

Figures:

Figure 1 Project Layout

Tables:

Table 1	:	PMC III Inputs during Reporting Period
Table 2	:	Summary of Disbursement
Table 3	:	Disbursement Status of Government of Nepal Fund
Table 4	:	Disbursement Based on ADB Report
Table 5	:	Action Plan for Outstanding Issues

MWSP Abbreviations and AcronymsCurrency Equivalents (as of 1 March 2002)
Currency Unit – Nepalese (Rupee/s (NR/NRs))

AR	:	Adit Access Road
ADB	:	Asian Development Bank
AP	:	Action Plan
APs	:	Affected Peoples
BDS	:	Bulk Distribution System
CA	:	Constitution Assembly
CBO	:	Community Based Organization
CDC	:	Compensation Determination Committee
CDO	:	Chief District Office
CFL	:	Current Flow Level
CRCC	:	China Railway Construction Company
CMS	:	Consolidated Management Service (P.) Ltd
CT	:	Consulting Team
CIRT	:	Community Issues Resolution Team
CO	:	Community Organization
DADO	:	District Agriculture Development Office
DCS	:	Design and Supervision Consultant
DDC	:	District Development Committee
DED	:	Deputy Executive Director
DEngD	:	Detailed Engineering Design
DLRO	:	District Land Revenue Office
DO	:	Dissolved Oxygen
DSC	:	Design and Supervision Consultant
DNI	:	Distribution Network Improvements
DWSA	:	Drinking Water Supply Act
EC	:	Electric Conductivity
ED	:	Executive Director
EIAs	:	Environment Impact Assessments
EIRT	:	Environmental Issues Resolution Team
EMP	:	Environmental Management Plan
EOT	:	Extension of Time
FY	:	Fiscal Year
GAAR	:	Gyalthum Adit Access Road
GWA	:	Ground Water Authority
GWRDB	:	Groundwater Resources Development Board
GoN	:	Government of Nepal
HFL	:	Highest Flow Level
HSMC	:	Hyalmo Sindhu Melamchi Committee
HSMVSUPIC	:	Hyalmo Sindhu Melamchi Valley Social Upliftment Programme Implementation Committee
HEPP	:	Hygiene Education and Promotion Program
HSUVS	:	Helambu Sindhu Upatyaka Vikas Samiti
ICON	:	Integrated Consultants Nepal (P.) Ltd
ICB	:	International Competitive Bidding
IEE	:	Initial Environmental Examination
IGCD	:	Income Generation & Community Development
JBIC	:	Japan Bank for International Cooperation
JICA	:	Japan Int'l Cooperation Agency
JRM	:	Joint Review Meeting
KCG	:	Kathmandu Consultative Group
KV	:	Kathmandu Valley
KVWA	:	Kathmandu Valley Water Authority (Now known as Kathmandu Valley Water Supply Management Board-KVWSMB)
KVWSMB:	:	Kathmandu Valley Water Supply Management Board
KVWC	:	Kathmandu Valley Water Corporation
KVWMSC:	:	Kathmandu Valley Water Management Support Ctte.
KVWMSP	:	Kathmandu Valley Water Management Support Project
KUKL	:	Kathmandu Upatkaya Khanepani Limited
KVWSMB	:	Kathmandu Valley Water Supply Management Board
KVWSSDP	:	Kathmandu Valley Water Services Sector Development Program
KVWUB	:	Kathmandu Valley Water Users Body
LAA	:	Land Acquisition
LCB	:	Local Competitive Bidding
LCG	:	Local Consultative Group
LDF	:	Local Development Fund
LGP	:	Local Governance Program
LOC	:	Letter of Credit
LNP	:	Langtang National Park
LRO	:	Land Revenue Office/Officer
MVSUPIC	:	Madan Valley Social Upliftment Programme
M&E	:	Metcalf & Eddy Inc, U.S.A.
MAR	:	Main Access Road

Maunsell	:	Maunsell Limited
MC	:	Management Contractor
MCG	:	Melamchi Consultative Group
MDS	:	Melamchi Diversion Scheme
MEH	:	MEH Consultants (P) Ltd.
MIS	:	Management Information System
MLD	:	Millions Liters per Day
MOF	:	Ministry of Finance
MPPW	:	Ministry of Physical Planning & Works
MSC	:	(KVWS) Management Support Committee
MSP	:	Management Support Project
Mutual	:	Mutual Engineering Consultants (P) Ltd
MV	:	Melamchi Valley
MVWUB	:	Melamchi Valley Water Users Body
MWSA	:	Municipal Water Services Act
MWSDB	:	Melamchi Water Supply Development Board
MWSP	:	Melamchi Water Supply Project
MPB	:	Melamchi Pul Bazaar
NKr(NOK)	:	Norwegian Kroner
NDF	:	Nordic Development Fund
NEA	:	Nepal Electricity Authority
NGO	:	Non-Government Organization
NJS	:	Nippon Jogsudio Sekkei
NPC	:	National Planning Commission
NOD	:	Note of Dissatisfaction
NORAD:	:	Norwegian Agency for Development
NRM	:	(ADB) Nepal Resident Mission
NRs.	:	Nepali Rupees
NTC	:	Notice to Commence
NVE	:	Norwegian Water Resources and Energy Directorate
NDWQS	:	National Drinking Water Quality Standard
NRCS	:	
NWSC	:	Nepal Water Supply Corporation
NWSRB	:	National Water Supply Regulatory Body (now known as Water Supply Tariff Fixation Commission-WSTFC)
OHT	:	Overhead Tank
OPEC	:	Organization of Petroleum Exporting Countries
PAF	:	Project Affected Family
PAPs	:	Project Affected Persons
PIU	:	Project Implementation Units
PM	:	Particular Matters
PR	:	Public Relation
PRP	:	Public Relation Program
PMC	:	Project Management Consultant
PMU	:	Project Management Unit
PO	:	Private Operator
POE	:	Panel of Experts
PPF	:	Project Preparation Fund
PQ	:	Prequalification
PRC	:	Public Relation Consultant
PSP	:	Private Sector Participation
PSPC	:	Private Sector Participation Committee
PSMC	:	Private Sector Management Contractor
PTL	:	Power Transmission Line
QCBS	:	Quality Cost Based Selection
RL	:	Reduced Level
RPF	:	Resettlement Policy Framework
RRA	:	Rural Rapid Appraisal
RAP	:	Resettlement Action Plan
RE	:	Rural Electrification
SAAR	:	Sindhu Adit Access Road
SAPI	:	Special Assistance for Project Implementation
SDP	:	Sector Development Program
SGU	:	Safeguard Unit
S&E	:	Social and Environmental
SC, SKr	:	Swedish Kroner
SDE	:	Senior Divisional Engineer
SDR	:	Special Drawing Rights
SED	:	Social and Environmental Division
SIDA	:	Swedish International Development Agency
SILT	:	SILT Consultants (P) Ltd
SPAF	:	Severely Project Affected Families
SOI	:	Standard of Invoice
SUP	:	Social Uplift Program
TA	:	Technical Assistance
TOR	:	Terms of Reference
UAR	:	Upgrading Access Roads

USD, US\$:	United States Dollar
UAR	:	Upgrading Access Road
VDC	:	Village Development Committee
VOR	:	Variation Order Register
WB	:	World Bank
WUO	:	Water Utility Operator (now known as Kathmandu Upatyaka Khanepani Limited-KU)



A. Executive Summary

This report records the project implementation performance for the duration of February, 2014 and highlights the key activities undertaken during the period. The activities on the 2 components-Infrastructure Development and Social and Environmental Support during the period are summarized below:

Main Access Roads: This is 18.3 Km long road from Melamchi Pul Bazar to Timbu Bridge in Sindhupalchowk. The road was accessible during reporting period. The road is being used for public transport also. The maintenance works of the road is responsible by the contractor for construction of Headworks and Diversion Tunnel (MDS/DT/02). The Main Access road maintenance work along Melamchi- Timbu road was started from 29th September, 2013 by subcontractor United Builders on behalf of new tunnel Contractor CMC (MDS/DT/02). The maintenance works are ongoing. The condition of the road has been improving. **See section B1: Main Access Roads** for further details.

Upgrading of Access Roads (UAR/02) This is 22.2 km long access road from Lamidanda in Kavreplanchowk to Melamchi PulBazar, Sindhupalchowk. It has been completed, except few patches of various road lengths which were obstructed by the locals placing demands which were clearly beyond the scope and requirement of the project. Nevertheless the road is accessible. The defect liability period (DLP) for the contract expired on 30th April 2012. No any construction activities are carried out after end of the Defect Liability Period. The Contractor has started international arbitration against MWSDB for the decision in unsolved disputes on his claims. **See section B2: Upgrading of Access Roads (UAR/02).**

Consultancy Services for Construction Supervision of UAR/02: SIDeF-TAEC Consult JV is the Engineer for the services of construction supervision work for UAR/02. The Engineer SIDeF -TAEC submitted a Completion Report and As Built Drawings of UAR/02 Contract on 26th September, 2012. The services of the Engineer are not activated during reporting period, but are required to be continued further until the final payment certificate and the Letter of Discharge are issued. **See section B3: Consultancy Services for Construction Supervision of UAR/02.**

Adit Access Roads: Total 23.4 km long Adit Access Road having 2.3 Km long Ambathan Adit Access Road, 15.4 km long Sindhu Adit Access Road, 4.2 km long Gyalthum Adit Access Road and 1.5km long Sundarijal Adit Access Road have been completed and handed over to the Tunnel Contractor. These roads were accessible to the sites during reporting period. The maintenance works of these roads are under the responsibility of the contractor for construction of Headworks and Diversion Tunnel (MDS/DT/02). The sub-contractor United Builder on behalf of new tunnel Contractor CMC is working on Adit access road maintenance work from 30th September, 2013 from the Gyalthum Adit Access Road. All Adit Access Road's condition have been improving. **See section B4: Adit Access Roads.**

Tunnel and Headwork: The diversion tunnel will transfer water from the Melamchi River at Ribarma, Sindhupalchowk to Kathmandu valley at Sundarijal. Water will be diverted through **25,915.9m** water tunnel. There are 3 Adit tunnels having total length of 1,380.4m. One flushing tunnel with length 28.2m, Headworks diversion tunnel 211.6m, Access tunnel to Headworks 46.0m and **25,915.9m** Water tunnel. The total tunnel length to be excavated is **27,582.1m**.

Total 6,449.9m tunnel has been excavated by the earlier tunnel Contractor till date, out of it 5,001.4m Water tunnel, 1,380.4m Adit tunnel, 28.2m Flushing tunnel and 39.9m Access tunnel to Head Works. The Contract MDS/DT/01 was terminated on 25th September, 2012 by the Employer as per Contract Clause 15.2.

New re-bidding process was started immediately after the termination of the Contract (MDS/DT/01). On one stage two envelope procedures under the ADB Procurement Guideline, followed for re-bidding of the contract package. The IFB was issued on 1st December 2012 with deadline for submission of bids on 21st January, 2013. Four bids were received and technical bids were opened on 21st January, 2013. The evaluation work of technical bids was

completed and sent to ADB on 27th February, 2013 for the concurrence to open the financial bids of the successful bidders after the evaluation of the technical proposal. On 27th May, 2013 the ADB recommended to the Employer to open the financial bids of bidders CMC (ITALY) and Sinohydro (CHINA), who have passed the technical evaluation successfully. Financial bid opening took place on 3rd June, 2013. The Employer announced that the bid amount of CMC was NRs 7,723,471,342.00 and Sino Hydro was NRs10,918,268,938.81 (Excluding VAT). Contract with CMC was concluded on 15th July, 2013. On 1st October 2013 a commencement letter was issued to the Contractor by the Engineer. The Contractor is mobilizing for the preparation of tunnel construction work further ahead.

Tunnel excavation work was re-started on the Melamchi Project with the start of construction niche excavation on 1st January at Sundarijal. Progress has been slow however due to the Contractor's use of hand-held drilling equipment and reliance upon small-scale shotcrete production pending the completion of the site batching plant and arrival of electrical transformers allowing the use of drilling jumbos.

The Engineer has focused heavily on the recovery plan by CMC to overcome notable deficiencies such as equipment importation, planning and technical competence. Here, some progress has been observed with CMC's technical chief visiting from Italy, the recruitment of additional expatriate and local staff including, a third project manager, and the processing of customs documentation for key equipment.

Continued progress with mobilization activities during January has been carried out the site with refurbishment work of camp facilities on-going, the near completion of access road repair and the construction of workshop facilities. CMC will appoint a technical manager for his technical department. A revised construction program and insurance policy are still awaited.

The Engineer is keeping record all progress with respect to day works. Joint inspection of the tunnels at Gyalthum was conducted for the purposes of establishing the need for rectification works in the Tunnel.

Numerous formal and informal meetings and joint site visits have taken place with CMC staff in order to expedite the works. The Engineer continues to advice concerning the selection and testing of construction materials as a precursor for pre-construction testing activities at site, shotcrete testing is still awaited for the resumption of full-face tunneling at Sundarijal.

The commencement of landslide protection measures is now eagerly awaited at the Sindhu locality. Much discussion has occurred with the Engineer and CMC regarding the interaction between such measures and the final design elements.

Health and Safety: Health services were not in operation during reporting period. Laboratory works were also not running due to termination of the previous Contract by the Employer on 25th September, 2012. New contractor is under preparation of these works. **See Section B5: Tunnel and Headwork.**

Design and Supervision Consultants (DSC) for Tunnel and Headworks: Melamchi Water Supply Development Board (MWSDB) signed a contract agreement with Melamchi Design and Supervision Consultant Consortium (the "Engineer") for Detailed Design and Construction Supervision of Headworks and Diversion Tunnel Contract no. MDS/DT/01 on 10th July 2008. During February, 2014 Design Supervision Consultant involved in the Supervision works of the different sites as following:

Ambathan site:

The Engineer supervised the work of Shifting of Silica fume bags and Accelerator drums from existing storage house on 5th February, 2014. On 18th February 2014, one compressor, one grout machine and 4 electric panel boards were shifted from storage house to yard by using unique crane.

On 19th February, 2014, 5 steel pipe racks were shifted from the Ambathan to Sundarijal. Dismantling of existing storage house was carried out from 6th February to 9th February 2014. The sub-contractor of CMC, BIRA Furniture has started the construction of Ware house on 26th February, 2014. Inventory of explosive and accessories at Ambathan Site Bunker was done on 7th February 2014.

Gyalthum Site :

Regular monitoring of tunnel condition is continued. No overbreaks are found in the tunnel since the stoppage of construction works.

Fuel tanks have been installed in front of Gyalthum adit site. Similarly, batching plant foundation construction is nearly complete.

Construction of foundation for workshop as well as storage place for sand and gravel is ongoing.

Repairing works and cleaning works are going on inside tunnel. Similarly, maintenance of Contractor's camp at the adit site is continuing.

Joint Safety inspection was carried out by CMC and MDSCC representatives on 4th February, 2014 at Gyalthum site.

Sindhu site:

The Engineer supervised the Leveling work at the portal area and spoil tips area during this month. Dismantling of rails from the portal area was completed.

Old batching plant was dismantled. Batching plant, old machinery items and materials were shifted behind labor camp.

Dismantling of rails up to Junction area were completed. Electrification inside tunnel up to junction area Ch 0+750 was completed during this month.

Ventilation was installed and operated since 27th February, 2014. Among 3 fans, 2 are connected with switch box and only 1 is in running condition. Generator does not supply enough current to operate 2 fans together.

The Engineer have inspected and recorded stock of explosives at Sindhu bunker and MPB bunker on 9th February 2014. At Sindhu bunker total detonators 12104 nos. and at MPB bunker- Emulsion 74925 Kg & detonators 151,600nos.

Due to strike of local people in Bansbari V.D.C., Thakle, access road Ch 4+000, all activity regarding to the upgrading access road and dismantling work at portal area was stopped on 4th February to 7th February 2014. Main reason for strike was conflict between SUP and local people. Survey was carried out in adit tunnel to mark Chainage in every 5m interval on 25th February 2014. Safety inspection was conducted by Mr. Stefan Stensson (STE) and safety team of CMC on 02nd February, 2014. The Engineer issued site communication DSC CWC SC 04 on topic: " Safety notification" on 25th February, 2014.

RPM Mr. Paul Blanchard and STE Mr. Bjorn Albino visited and inspected site activities on 12th and 27th February, 2014. DRPM Mr. Arun Sharma and Deputy Contract Manager Mr. Bhagwan Shrestha visited and inspected site activities on 13th February, 2014.

Sundarijal Site:

Underground excavation is being performed by conventional drilling and blasting (CBM) tunneling method. Heading and benching method is applied for Niche. The excavation for niche has been done on the left wall of the outlet water tunnel at Ch. 23 + 877.8 to Ch. 23 +856.60. Total 21.2m niche has been excavated. The width of the niche from Ch.23 +888 to 23 +866 is 3m and from 23+866 to 23 +856.6 is 5m.

The tunnel face blasting has been commenced from 17th February, 2014. The tunnel has been excavated from ch. 23+797.00 to Ch. 23 +783.6 that is 13.4m has been excavated.

Total eight (08) blasts in niche and nine (09) blasts in outlet water tunnel face has been done till 28th February, 2014.

Installation and calibration of batching plant has been completed. Also, Construction works of workshop and store has been completed. Maintenance and upgrading of the Contractor's, Engineer-Employer camp has been completed.

Survey works has been done by CMC surveyor in outlet water tunnel for convergence measurement and face survey..**See section B6: Tunnel Design and Supervision Consultants.**

Construction of Camp at Melamchi PulBazar (Contract Package II): The construction work for five officer's houses, two guest houses and staff quarters are completed. The Taking over Certificate has been issued to the Contractor with some outstanding works on 29th December, 2011. DLP was expired on 28th December 2012. The contractor has not submitted As Built drawing yet and also not handed over the site to the Employer yet. **See Section B7: Melamchi Camp Site Package II.**

Design Supervision Consultant for Water Treatment Plant (NJS):

The NJS (Nippon Jogesuido Sekkei Co.Ltd) in association with Binne Black & Veatchi (International) Ltd., Mott Mac Donald International Ltd. and Nepal Consult (P) Ltd is the Design and Supervision Consultant for the Design and Construction Supervision work of Water Treatment Plant. After inconclusive termination of the bidding process for construction of WTP, the MWSDDB had decided to proceed re-bidding work of WTP on 27th September 2011. The pre-bid meeting was held on 8th June 2012. Three bids were received from the six prequalified bidders and were opened on 25th July 2012. On 10th July 2013 an agreement was made with VA Tech limited and Prativa limited Industries JV with MWSDDB for the Construction of Water Treatment Plant. The master work schedule of Water Treatment Plant has been revised.

The commissioning date of Water Treatment Plant will be fixed after finalizing the complete construction and commissioning schedule of tunnel. The Engineer was attended in the Project Progress meeting with the Secretary/ Joint Secretary of MoUD, Executive Director and DED of MWSDDB, Contractor, PMC, JICA and ADB on 3rd February, 2014. There were meetings with Engineer, Contractor and Employer in MWSDDB meeting hall. Memoranda were issued to the Contractor on various dates regarding Contractor's Submittals, drawings, Transmittal notes and letters and approval of major equipment for procurement were carried out. Also routine office work including submission of invoices and monthly report were carried out. The Duration of Construction phase is 27 Month.**See section B8: Design Supervision Consultant for Water Treatment Plant.**

Water Treatment Plant (WTP) Construction:

The contract for the construction of the Water Treatment Plant was signed between MWSDDB and the Contractor **VA Tech Wabag Ltd and Prativa Industries Ltd JV**, for a total contract price of NRS 4,204,641,908 (Nepalese Rupees Four Billion Two Hundred Four Million Six Hundred Forty one thousand Nine Hundred and Eight only, exclusive of VAT on 10th July 2013. The Commencement letter was issued by the Engineer to the Contractor on 1st January, 2014. Time for Completion is 810 days (27 Month). The Contractor commenced mobilization of staff, equipments and materials during this month. Memorandum were issued to the Contractor by the Engineer in various dates on Contractor's Drawings, Transmittal Notes, Letters and emails and approval of major equipment for procurement were carried out. The Foundation Stone Laying for Water Treatment Plant was inaugurated by the Honorable

minister for Urban development on 4th February 2014 in the presence of Ambassador of Japan, JICA Chief Representative, Secretary, other Secretaries, MWSDB staffs, Consultants, Contractor Governments Officers and Media Persons. The Contractor commenced mobilization of additional staff, equipment and materials during this month. Earthwork in excavation for WTP structure, boundary wall and site survey continued. The Engineer Office Erection continued. **See section B9: Water Treatment Plant**

Project Management Consultant PMC III: A contract agreement was signed on 26th July 2009 between MWSDB and Lahmeyer International in association with Total Management Services and Butwal Power Company Ltd to provide the strategic project management skills, to ensure timely and high quality implementation management performance, to provide technical advisory and capacity building services to MWSDB. PMC III is handling the responsibilities of Project Management support works, attending in different progress meetings with MWSDB and other concerned Consultants and Contractors. PMC III is supporting to the MWSDB in procurement management, construction management and financial management of the project during reporting period. The Team Leader PMC III was appointed as a member of the Bid Evaluation Committees for the Tunnel Contract, as well as for the WTP Contract. He is reviewing and recommending for payments on the IPCs. The Team Leader and Deputy Team Leader were involved in the various meetings with Employer, Engineer and Contractor for different contract packages during reporting period. TL PMC is supporting the Employer in the case of International Court of Arbitration" Marushin Shitaka-Tundi JV verses MWSDB. **See section B9: Project Management Consultant PMCI.**

Social and Environmental Support : For social and environment support of the project a Safeguard and Social Development Support Consultant (SSDSC) is being implemented. Integrated Consultants Nepal (ICON) Pvt. Ltd in Joint Venture with Consolidated Management Services Nepal (CMS) has been selected and mobilized from 30th November 2009. SSDSC is working to provide supports to Safe Guard Unit, the HSMVSUPIC, and MVSUPIC for the implementation of

- Social Uplift Programme (SUP),
- Public Relation Programme,
- Environment Management Plan and
- Resettlement Action Plans.

Social Uplift Programme (SUP): the main objective of the SUP is to engage local participation in the mitigation of direct and indirect impacts and to create a base for long term development in project-affected VDCs, to improve quality of life of the affected people. The selected sectors for SUP implementation are: (a) Cultural and Environmental Protection and Conservation, including Buffer Zone Development (b) Health (c) Education (d) Income Generation and Community Development and (e) Rural Electrification.

SUP activities are being implemented in the 14 affected VDCs of project area in Sindhupalchowk HSMVSUPIC is executing the activities with the help of SSDS consultancy. In the same way in 5 VDC of Kavre District SUP activities are being implemented by MVSUPIC. **See section E1.1: Social Uplift Programme (SUP).**

Public Relation Programme: These activities are carrying out by SSDS Consultant to solve the social problems found in the project areas during execution of the works during the reporting period. **See section E1.2: Public Relation.**

Environment and monitoring Management Plan: In this component some activities are carried out are i) water quality test of different sites ii) Noise level test iii) air quality test iii) fish assessment iv) Measurement of discharge. **See section E1.3: Environment Management.**

Resettlement Action Plan: This activity is carried out for compensation upon acquisition by the project. Some activities are regularly carried out are acquisition of land, crops, trees and mitigation for loss of water due to diversion of Melamchi River, Displacement allowances, Rehabilitation measures, loss of government property, loss of community facilities and resources, Community losses and general counseling. Nothing was paid as compensation of acquisition of land during February, 2014 and till the end of February, 2014 total paid compensation is **NPR 83,70,69,713.00. See section E1.4: Resettlement.**

B. Infrastructure Development**1. Main Access Road (MAR)**

The Road from Melamchi Pul Bazar to Ambathan section was completed and handed over to previous Tunnel Contractor for regular maintenance and operation on 3rd June, 2009. This road is using by the public vehicle too. After termination of Contract MDS/DT/01 the repairing work has been stopped but Main Access road maintenance along Melamchi- Timbu road was started from 29th September, 2013 by subcontractor United Builders on behalf of new tunnel Contractor CMC (MDS/DT/02). The road is fully accessible during reporting period.

2. Upgrading of Access Roads (UAR)

Upgrading of the 6 km long Jorpati-Sundarijal road (UAR/01) is completed but it needs repair. All other UARs are also completed. The contract for the upgrading of the 22.2 km long access road (MDS/UAR/02) from Lamidanda to Melamchi Pul Bazar was signed on 15th April 2008 and the date of Commencement was 15th May 2008. The works was scheduled to be completed within 580 days from the date of Commencement that was by December 2009. The work was not completed in the original contract period and the Contractor was granted the extension of time for till 30th April 2011.

• Letter of acceptance:	27 th February 2008.
• Date of Agreement:	15 th April, 2008.
• Commencement Date:	15 th May, 2008.
• Total contract amount:	NRs.491, 833, 081.95.
• Contractor's name:	M/S Marusin Sitaka- Tundi JV.
• Additional works under variation:	SAAR and GAAR track opening, Minbhaban office extension, Melamchi Bazar Works and MAR works.
• Variation to Contract:	Nrs.13,259,658.70 + Nrs.28,711,878.46 (Including VAT)
• Revised Contract price:	NRs.533,804,619.11(8.5% increase)
• Value of works certified to date:	550,553,708.64 (IPC No 26 to 31 st May 2012)
• Extension of Time granted:	380 Days.
• Time for Completion	960 Days.
• Percentage completion (financial):	98%
• Defects liability period:	365 days (30 th April 2012).
• Actual date of completion:	30 th April, 2011.
• Percentage Completion (physical works)	99% (30 th November, 2011, Including variation)

The construction site was divided into 3 sections (A,B&C) The taking over certificate for section B and section C has been issued at the end of May 2011. The DLP had expired on 31st December for Section-A and on 30th April 2012 for section B & section C. The Contractor had no any activities in the site after completion of defects liability period. The IPC no 27(revised) has been submitted by the Engineer but the contractor has rejected it and declared it as invalid. There were two claims submitted by the Contractor to the Dispute Adjudication Board (DAB). Claim no 3A was submitted on 17th October 2012 asking for the payment of overhead cost for Extension of time and claim no 4 was submitted to the DAB on 9th November 2012 requesting for decision on draft Final statement by the Contractor. The Defence statements on both claims were submitted on 7th December, 2012 to the DAB by the Employer. The first hearing was organized on 7th January, 2013 and the Second was organised on 15th January, 2013 by the DAB at NEPCA office Lalitpur Nepal. On 12th March 2013 the DAB made a decision and rejected Contractor's Claims namely 3A, 4 and 5. On 20th March, 2013 the Contractor issued a Notice of Dissatisfaction to the Employer. The MWSDB has organized meetings with the Contractor MDS/UAR/02 to settle the claims No 3A, 4 and 5 amicably on 25th April, 2013, 18th May, 2013 and 4th August, 2013 but not finalized the process due to differences with Contractor's demands. The Contractor submitted the Arbitration Case to International Chamber of Commerce (ICC). The MWSDB is defending the case in ICC.

3. Consultancy Services for Construction Supervision of UAR/02.

The contract for the consultancy services for the construction supervision of the Upgrading of Lamidanda-Melamchi Pul Bazar Road was signed on 11th May 2008 with SIdEF-TAEC Consult JV. The services commenced on 1st June 2008. First Variation for Consultancy service was approved by ADB on 23rd November 2009. The increase in Contract amount by first variation was NRs 2,214,972.29 without VAT. After this variation, the total contract amount was NRs17, 066,111.67. The total increasing amount of variation order was 14.91%. The 2nd Variation for extension of supervision services of the Consultant up to April 2012 has been approved by the Employer. After Variation no 2 the total amount of contract is NRs. 23,401,981.87 and percent increase is 39.45%.

- **Date of Agreement:** 11th May, 2008
- **Name of the consultant:** Sustainable Infrastructure Development Foundation (SIdEF-TAEC) Consultant P. Ltd Joint Venture.
- **Total contract amount Without variation:** NRs. 16,781,787.5 including VAT 13% and provisional sum (contingency) of NRs. 1,762,675.0
- **Commencement date:** 1st June 2008.
- **Date of completion:** 30th April 2012 after approved extension of time.

On 16th August, 2012 MWSDb approved the extension of time until 3rd September 2012 to complete the outstanding administrative works of UAR/02 but the Engineer requested to the MWSDb to extend till 30th September 2012 for the same purpose. On 26th September 2012 Engineer submitted a Completion report, laboratory test report and As Built drawings of UAR/02 contract. Presently to finalize the payment of the Contractor Engineer's services are required to be continued until issuance of the final payment certificate and letter of discharge from the Contractor.

4. Adit Access Roads

Total 23.4 km long Adit Access Road having 2.3 Km long Ambathan Adit Access Road, 15.4 km long Sindhu Adit Access Road, 4.2 km long Gyalthum Adit Access Road and 1.5km long Sundarijal Adit Access Road have been completed and handed over to the Tunnel Contractor. The Tunnel Contractor was responsible for maintenance of these access roads, but due to termination of the Contract No MDS/DT/01 these roads are not maintained but United Builders on behalf of new tunnel Contractor CMC started Adit access road maintenance work from 30th September, 2013 starting from the Gyalthum Adit Access Road. These roads were accessible during reporting period.

5. Tunnel and Headwork

The contract for the construction of the Headworks and Diversion Tunnel was signed between MWSDb and the Contractor Cooperative Muratori & Cementisti-C.M.C. di Ravenna of ITALY, for a total contract price of Nrs. 7,723,471,342.00, exclusive of VAT on 15th July 2013. Details of the contract are as follows:

- **Contract No:** MDS/DT/02, Headworks and Diversion Tunnel Construction.
- **Date of Agreement:** 15th July 2013.
- **Total contract amount:** NRs. 7,723,471,342.00 exclusive of VAT.
- **Commencement Letter Issued:** 1st October, 2013.
- **Time for completion:** 1095 days (29th September, 2013)
- **Name of the Contractor:** Cooperative Muratori & Cementisti-C.M.C. di Ravenna ITALY

GENERAL

The diversion tunnel will transfer water from the Melamchi River at Ribarma, Sindhupalchowk to Kathmandu valley at Sundarijal. The diversion scheme includes diversion weir, stilling basin, and intake, settling basins, hydraulic steel works, approximately 26 km of diversion tunnel and a pipeline from the downstream of Sundarijal outlet Portal to the water treatment plant at Sundarijal.

Features	Data
<u>Access Roads</u>	Upgrading of Timbu- Ambathan access road from track to complete road – 1200m Construction of access road from Ambathan to Headworks - 660m
<u>Headworks</u> <u>Headworks Diversion Tunnel</u> -Shape -Length -Width/Height -Cross sectional area <u>Cofferdam across Melamchi River</u> <u>Diversion Weir across Melamchi River</u> -Type -Crest elevation -Length -Design flood -Stilling Basin Type -Intake structure Type -Sill/Platform Level -No. of gates/width/height <u>Bed load excluder/ Gravel excluder/</u> -Settling basin Type -No. of basins -Length/width/height <u>Bridge across Melamchi River</u> -Type -Span	D-shaped 211.6 m 3.80 m / 3.80 m 12.9 m ² Gravity concrete weir with masonry core 1425.0 m a.s.l. 22.75 m 600 m ³ /s Submerged bucket □ dissipater Normal sloped side intake with trash rack 1423.0 m / 1432.0 m 4 nos / 1.1 m / 1.7 m Serpent Sediment Sluicing System(S4) 2 104 m / 4.0 m / 5.5 m Steel Truss Bridge 54.0 m
<u>Water Diversion Tunnel</u> -Shape -Length -Width/Height -Cross sectional area -Lining -Design Discharge -Flushing Discharge -Overburden max/min	D-shaped 25.916 km 3.50 m / 3.99 m 12.7 m ² Shotcrete/concrete 6 m ³ /s 8 m ³ /s at Ambathan Adit, 10 m ³ /s at Sundarijal 1181.66 m / 71.25 m
<u>Amabathan Adit</u> -Shape -Length -Width/Height -Cross sectional area -Lining	D-shaped 298.2 m 4.20 m / 4.83 18.4 m ² Shotcrete/concrete
<u>Bridge across Melamchi River</u> -Type -Span	Steel Truss Bridge 25.5 m
<u>Gyalthum Adit</u> -Shape -Length -Width/Height -Cross sectional area -Lining	D-shaped 330.5 m 4.20 m / 4.83 m 18.4 m ² Shotcrete/concrete

<u>Sindhu Adit</u> -Shape -Length -Width/Height -Cross sectional area -Lining	D-shaped 751.7 m 4.20 m / 4.83 m 18.4 m ² Shotcrete/concrete
<u>Pipeline from Sundarijal Outlet to WTP</u> -Diameter -Material -Length	1600 mm Ductile Iron 236 m
<u>Construction of Permanent Camp at Ambathan</u> - Type B house -Operator's house - Office -Kitchen/canteen/laundry/recreation	– 1 no. plinth area 105.4m ² – 7 nos, plinth area 91.5m ² – 1 no. plinth area 80m ² – 1 no. plinth area 155.4m ²
<u>Operation & Maintenance of Employer's Camp</u> -Location	Employer's MPB camp at Melamchi Pul Bazaar
<u>Maintenance of Access Roads</u>	Lamidanda – Melamchi Pul Bazaar (22.2 Km) Melamchi Pul Bazaar – Timbu (18Km) Timbu – Ambathan /Headworks (2.3 Km) Sindhu Adit Access Road(15.3Km) Gyalthum Adit Access Road(4.2 Km) Sundarijal Outlet Access Road (1.5Km) Jorpati – Sundarijal Road (6.56Km)

The tunnel is being excavated from three Construction Adits (Ambathan, Gyalthum and Sindhu) in addition to the portal at the downstream outlet at Sundarijal.

Water will be diverted by **25,915.9m** water tunnel. There are 3 Adit tunnels having total length of 1,380.4m. One Flushing tunnel with length 28.2m, Headworks diversion tunnel 211.6m, Access tunnel to Headworks 46.0m and **25,915.9m** Water tunnel. The total tunnel length to be excavated is **27,582.1 m**.

Total 6,449.9m tunnel is excavated till date, out of it 5,001.4m Water tunnel (**Sundarijal**-2,190.3m, **Sindhu** Adit U/S site 616.2m and D/S site 641.4m, **Gyalthum** Adit U/S site 155.4m and D/S site 173.7m and **Ambathan** Adit U/S site 647.3m and D/S site 577.0m), 1,380.4m Adit tunnel, 28.2m Flushing tunnel and 39.9m Access tunnel to HeadWorks. Thus total excavated length is 23.42% of the total tunnel length. The Contract was terminated on 25th September, 2012 by the Employer as per Contract Clause 15.2.

New re-bidding process was started immediately after the termination of the Contract (MDS/DT/01). On one stage two envelope procedures under the ADB Procurement Guideline, followed for re-bidding of the contract package. The IFB was issued on 1st December 2012 with deadline for submission of bids on 21st January, 2013. Four bids were received and technical bids were opened on 21st January, 2013. The evaluation work of technical bids were completed and sent to ADB on 27th February, 2013 for the concurrence to open the financial bids of the successful bidders in the evaluation of the technical proposal. On 27th May, 2013 the ADB recommended to the Employer to open the financial bids of bidders CMC (**ITALY**) and Sinohydro (**CHINA**), who have passed the technical evaluation successfully. Financial bid opening took place on 3rd June, 2013. The Employer announced that the bid amount of CMC was NRs 7,723,471,342.00 and Sino Hydro was NRs10,918,268,938.81(Excluding VAT). Contract with CMC was concluded on 15th July, 2013. On 1st October 2013 a commencement letter was issued to the Contractor by the Engineer. The Contractor is involving for the preparation of tunnel construction work further ahead. Contract signing ceremony occurred on 15th July, 2013. CMC mobilized their Production Manager who will manage on-site works.

During February, the pace of tunnel progress quickened slightly at Sundarijal with the commencement of full-face excavation: elsewhere on the Project, preparations continued for the planned start of tunneling at Gyalthum, all activities at the Headworks ceased due to environmental issues involving the Lantang National Park and concerned local communities. Visits to the Project were conducted by the ADB and the Dispute Adjudication Board.

Full-face tunnel excavation re-commenced at Sundarijal on 17th February. Progress has been slow however due to the Contractor's continued use of hand-held drilling equipment and reliance upon small-scale shotcrete production pending the completion of the site batching plant and arrival of electrical transformers allowing the use of drilling jumbos. Progress has also been bedeviled by equipment breakdowns; particularly with mucking equipment. It is anticipated that full mechanized production will occur in March.

The Engineer continues to focus upon the recovery plan by CMC to overcome notable deficiencies such as equipment arrival, planning and technical competence. Daily records from the Contractor are now more forthcoming but still improvement is needed. New equipment has been seen at Sundarijal and information from CMC indicates that more will arrive at the beginning of March.

Refurbishment work of camp facilities at Sindhu and Gyalthum continued. Access roads to Sindhu and Ambathan were formally accepted by the Engineer for the commencement of regular maintenance. Regrettably, all work at the Headworks locality remains on-hold pending the resolution of issues affecting the local community, MoF and the Lantang National Park. The Engineer has communicated repeatedly to CMC the need to keep stakeholders informed about anticipated site activities; without avail.

During February, the Engineer has continued to support the Employer regarding the contractual obligations of both parties and attendance at meetings and presentations to the MOUD, ADB Board of Directors and the inaugural visit of the DAB. The Engineer has noticed some small improvement in the submission of technical documents following the appointment by CMC of a technical manager. A revised construction programme has been submitted and commented upon by the Engineer.

The Engineer has continued to liaise with CMC and offered advice concerning pre-construction testing activities at site: shotcrete testing is still awaited eagerly.

Landslide protection measures at the Sindhu locality have been approved by the Engineer and the start of work scheduled for early March.

The value of the works, evaluated by the Engineer, executed under MDS/DT/01 until 26th September, the day the Contractor stopped execution of all Works; the total amounting to NPR 581,350,916.65 while the previously certified amount is NPR 508,349,760.37. However, the rock support works in the tunnel needs to be tested for assessment of the value of the works executed in accordance with the Contract. This activity is being undertaken under MDS/DT/02. The value of works under MDS/DT/02; completed to-date amounts to just over 1% of the Contract amount: payment amount is currently under processing.

The total excavated length of the tunnels under MDS/DT/01 remains at 6459.5 meters, being 23.42% of the total tunnel length. Tunnel excavation under MDS/DT/02 resumed on 17th February 2014: a total of around 13.4m progress at Sundarijal being accomplished during February.

5.1 ACTUAL PROGRESS DURING REPORTING PERIOD

5.1.1 General Activities

5.1.1.1 Guarantees and Insurances

Advance Payment Guarantee of Contract MDS/DT/02:

The Contractor of MDS/DT/02, Cooperativa Muratori & Cementisti C.M. C. di Ravenna submitted the Advance payment Guarantees as given below:

-Standard Chartered Bank Nepal's Guarantee No. 477020050485 FA for an amount of Euro 9,523,539.52 having validity up to 20th June, 2016 and

-Standard Chartered Bank Nepal's Guarantee No. 477020050430 FA for an amount of NPR 434,059,089.42 having validity up to 20th June, 2016.

The Engineer recommended the Employer for the advance payment to the Contractor against the bank guarantees through IPC No. 1.

The Contractor has received NPR 308,938,853.68 on 9th October, 2013, NPR 125,120,235.72 on 30th October, 2013 and Euro 9,523,539.52 on 23rd October, 2013 as advance payments against the guarantees.

Insurances:

Insurances of the Tunnel Contractor are not yet effective.

5.1.1.2 Road Maintenance

Temporary Access Road for Open Cut Excavation at Headworks

On 6th February 2014, the Sub-Contractor of CMC, United Builders & Engineers Pvt. Ltd. started the construction of access road along the Ribarma River for open cut excavation. Since 10th February 2014, the access road construction has been stopped by Langtang National Park and the local community forest people over the issue of tree cutting in the Headworks area.

Drilling of big boulders was carried out from 5th February 2014 but on 11th February 2014, drilling work was stopped by Langtang National Park officials.



Access Road Track opening for open cut excavation works at Headworks



Drilling of big boulders at Headworks

Gyalthum Adit Access Road:

Access road upgrading work has almost been completed including landslide removal, drain cleaning, grading, leveling and compaction. But, some locations of the road have not been finished due to public issues.

Landslide debris, volume about 1225m³, and road soil (drain and road shoulder), volume about 1880m³, was removed. About 752m³ muck material was placed along the 500 m road section during this month.

Sindhu Adit Access Road:

Access road upgrading work has almost been completed including landslide removal, drain cleaning, grading, leveling and compaction. But, a few parts of the road have not been finished due to public issues.

Landslide debris, volume about 1225m³, and road soil (drain and road shoulder), volume about 1880m³, was removed. About 752m³ muck material was placed along the 500 m road section during this month.

Sundarijal Outlet Access Road:

The access road to Sundarijal site is accessible but need some improvement works. Maintenance work has to be carried out such as spreading, laying, leveling and compacting base course at required sections. The road has been damaged by Kalika Construction and local people due to trench excavation carried out for pipe laying works.



Local people digging access road for drinking water supply pipeline to Bhadrabas



Damaged access road by Kalika Construction



Sprinkling of water on the access road by CMC

ZERO KM TO MELAMCHI ROAD SECTION:

Gabion removal work at Ch. 1+400m was completed on 7th February, 2014. Lean concrete was started on 12th February and it was completed on 13 Feb 2014. Stone masonry work has been started from 20th February, 2014.

Concrete Mix-design

Concrete Mix Design - Cement:Sand:Aggregate is 1:2:4

Water Cement ratio - 0.6

Slump – 90mm to 95mm

Cement used - Maruti Cement and Hetauda cement Gabion protection work at Ch. 20+790m was completed on 20th February 2014. Concrete pipe of 450 mm diameter were installed at Ch. 20+790m & Ch.20+900m and backfilling was completed on 25th February 2014.



Gabion protection work at Ch. 20+790m



Gabion protection work at Ch. 20+790m



Concrete pipe of 450 mm diameter were installed at Ch. 20+790m & Ch.20+900m



Maintenance of the access road to Army Camp bunker at Melamchi Pul Bazaar

Maintenance of the access road to Army Camp bunker at Melamchi Pul Bazaar was started on 21st February and is still continuing.



Muck laying on access road to Army Camp bunker at MPB

Muck spreading by excavator

5.1.1.3 Health Services

No health services were provided during reporting period.

5.1.1.4 Camps PROGRESS OF CWC CONTRACT No. MDS/DT/02 .

Ambathan Adit Camp:

Construction of workshop building was started on 2nd February and it was completed on 18th February, 2014. Similarly, cleaning of camp houses was done in this month.

Electrification of camp houses was started on 10th February and it was continued till 28th February, 2014.

Electric set up in Adit tunnel was carried out from 17th February to 21st February, 2014.

Nepal Army personnel are providing security to the explosive magazine, camp, tunnel portal, equipment and materials.

CMC has deployed 2 personnel for the security of Permanent Camp at Ambathan.



workshop building

Gyalthum Camp:

Nepal Army personnel and two guards from CMC are giving security to the explosive magazine, the Employer's/Engineer's camp, tunnel portal, equipment and materials.

Sindhu Camp:

MDSCC prepared inventory of the adit camp on 7th February, 2014 and handed over keys of the houses on 20th February, 2014 to the CMC (IV type- 5 nos., V type -2 nos., Kitchen and CRCC office building). Currently renovations of those houses are going on.

Nepal Army personnel and two guards from CMC are giving security to the explosive magazine, the Employer's/Engineer's camp, tunnel portal, equipment and materials.

Sundarijal Camp:

Maintenance work for the Employer's/Engineer's camp and Contractor's camp has been completed.

Nepal police personnel and Group-4 security are giving security for the camps, equipment and materials.



Maintenance work of Contractor's and Engineer's camp

5.1.1.5 Vehicles

The Engineer had instructed the Contractor to take over 26 nos. of the Employer's/Engineer's vehicles for operation & maintenance, and the Contractor has commenced the operation & maintenance of vehicles from December, 2013.

5.1.2 Headworks**5.1.2.1 Access Road.**

The New tunnel Contractor is opening the track for this work.

5.1.2.2 Concrete Works

No work was carried out during reporting period.

5.1.2.3 Headworks Bridge

No work is carried out during reporting period.

5.1.2.4 Other Civil Works

No work is carried out during reporting period. New tunnel Contractor is under preparation for this work.

5.1.3 Ambathan Adit**5.1.3.1 Flushing Tunnel**

There is no any activity during reporting period.

5.1.3.2 Water Tunnel

There were no any activities during reporting period.

5.1.3.3 Spoil Tip and Landscaping

There were no any activities during reporting period.

5.1.3.4 Ambathan Bridge

The works at Ambathan permanent bridge have been completely stopped during reporting period. Concrete work for railing posts and installation of guardrail pipes are the outstanding works to be completed.

5.1.3.5 Cycle Time

There were no any activities during reporting period.

5.1.4 Gyalthum Adit**5.1.4.1 Adit Tunnel**

There were no any construction activities during reporting period.

5.1.4.2 Water Tunnel

There were no any construction activities during reporting period.

5.1.4.3 Spoil Tip and Landscaping

There were no any construction activities during reporting period.

5.1.4.4 Cycle Time

There were no any activities during reporting period.

5.1.5 Sindhu Adit**5.1.5.1 Water Tunnel**

There were no any construction activities during reporting period.

5.1.5.2 Spoil Tip and Landscaping

There were no any construction activities during reporting period.

5.1.5.3 Cycle Time

There were no any activities during reporting period.

5.1.6 Sundarijal Outlet**5.1.6.1 Portal and Tunnel**

There were no any construction activities during reporting period. The new tunnel Contractor is under preparation for the tunnel construction work.

5.1.6.2 Spoil Tip and Landscaping

There were no any construction activities during reporting period.

5.1.6.3 Cycle Time

There were no any activities due to termination of the tunnel contract.

5.1.7 Hydraulic Steelworks**5.1.7.1 Design and Supply**

No activity regarding design and supply of Hydraulic Steelworks was carried out during reporting period.

5.1.7.2 Erection

No work has been commenced during reporting period.

5.1.8 Permanent Camp Head works**5.1.8.1 Houses**

No work has been commenced during reporting period.

5.1.8.2 Power Supply

No work has been commenced during reporting period.

5.2 PAYMENTS TO THE CONTRACTOR**5.2.1 Monthly Statement and Payment Certificates**

Notice to Commence was issued to the Contractor on 1st October 2013. The Engineer received the Contractor's Application for Interim Payment Certificate 02 up to the month of November, 2013 on 22nd January, 2014. The Engineer has replied the Contractor on 27th January 2014 to clarify the shortfalls in effecting the insurances as well as the dayworks claimed in the statement. The Contractor was unable to effect the insurances as per the Contract provision. So the Engineer determined the payment due to the Contractor which was less than 1 % of the Accepted Contract Amount so IPC could not be issued.

The Engineer again received the Contractor's Monthly Work Statement no 02 combining for the Month of December 2013 and January 2014 on 24th February, 2014. During this reporting period also, the insurances are not affected as per the requirements of the Contract. The Engineer is checking the Contractor's Monthly Work Statement no 02 for the determination of works' value to issue IPC.

5.2.2 Variations

No Variation Orders has been issued to the Contractor during the reporting period.

5.2.3 Claims

The Contractor of MDS/DT/02, Cooperativa Muratori & Cementisti C.M.C. di Ravenna has disagreement with the Engineer's decision of 1st October 2013 as the Commencement Date, and expressed his intention to refer the issue to the Dispute Board.

5.3 DESIGN**5.3.1 DSC Designs**

The following design tasks have been carried out during the reporting period:

- 5 no of Drawings of Headworks , 2 no of Drawings of Headwork River Training Works(Retaining Wall) & 2 no of Drawings of Water Tunnel Ventilation, Vent House sent to MWSDB for approval dated on 6th February 2014(DTF 101):
- 3 no of Drawings of Sundarijal Outlet, Portal drawing sent to MWSDB for approval dated on 16th February 2014 (DTF 103):
- 1no of Drawings of Headwork Diversion Tunnel sent to MWSDB dated on 12th February 2014 (DTF 102) and to Contractor for construction dated on 12th February 2014 (DTF 009):

5.3.2 Contractor's Designs

The Contractor shall carry out the design of Hydraulic Steelworks and the nominated subcontractor the Sediment Sluicing System (S4) for the settling basin. These works also have an interface with the finalization of detailed layout and structural design prepared by the Design and Supervision Consultant. Therefore the DSC design shall be revised after the Contractor has finalized his design.

5.4 QUALITY CONTROL

5.4.1 Contractor's Quality Control

Laboratories

Following the Contractor's request and joint inspection to assure competence of the proposed laboratory, the Akara Materials Testing Laboratory Pvt. Ltd, Hattigauda, Kathmandu is approved with comments on 24th October 2014, in order to institute sampling and testing facilities to confirm the quality of the construction materials as per Contract requirements. It is believed that the above said approval played significant role to speed up to determine the quality of the materials even the Contractor's sampling and materials testing facilities as per Contract are yet to be instituted. Thus, this approval is valid until the Contractor's own main laboratory is established and comes into operation after the Engineer's approval as per Contract.

As per the Contract, it is informed by the Contractor location of main laboratory for the duration of Contract period shall be within the premises of the Contractor's camp-Bahunepati and four nos. of satellite laboratories shall be located at the access point (portal) of diversion tunnel/ adit portal.

The first lot of sampling and testing equipment as procured from the Aimil Ltd.-India arrived at the main laboratory on 24th January 2014. The major sampling and testing equipment are installed with the help of manufacturer's technical team. Testing and measuring equipment are required to calibrate from the internationally recognized testing and equipment calibrating organization, in this regard the Contractor has been advised to approach to Nepal Bureau of Standard & Metrology.

During this reporting period, In lieu of British Standard as specified in the Contract, the Contractor has submitted a set of Indian Standards/ Code of Practices for sanitary appliances/sanitary works.

Upon the Engineer's query regarding delay to provide the standards, the Contractor informed that purchase order has already been placed for Standards/Code of Practices, and yet there is no further confirmation regarding the date of arrival of the standards.

The Contractor has again been requested to procure current issues of the standards such as NCAP no. 7, Code of Practices for Safety in Tunneling in the Construction Industries, standard specification for concrete aggregate, cement, steel re-bar in order to commence the construction activities and, other relevant standards as per priority of the works.

As per Sub-Contractor's request, the East Management & Engineering Services Pvt. Laboratory (EMES) is approved on 6th November 2012 to provide sampling and testing facilities at his laboratory located at Satdobato, Lalitpur and, at work site up to the completion of Contract period for the backlog maintenance of Jorpati - Sundarijal road works.

In addition to the EMES, M/S Viswa Consult Pvt. Ltd. has also been approved on 26th September 2013 as proposed by the Sub-Contractor G. Tec. on 24th September 2013.

Approval of Construction Materials

Most of the major construction materials other than rock dowels/bolts have been for the Construction of tunnel works.

During this reporting period, the Contractor's proposal to source reinforcement steel from M/s SUL Steel Pvt. Ltd has been accepted as approved source to supply re-bar diameter ranging from 8 to 32 mm.

The Contractor is requested to provide additional information on their proposal as received on 14th February 2014 regarding 43 & 53 grade of OPC cement brand name RAASI GOLD.

In order to approve additional concrete aggregate source, the Contractor's proposal of M/s Shree Palchowki Mai Rooda Dunga Udyog Pvt is not accepted as approved based on the submitted documentation, thus the Contractor has been requested to provide comprehensive information regarding the aggregate crushing plant including quality assurance system as adopted in order to convince the Engineer as a reliable source.

The Construction materials such as cement, concrete admixtures, micro silica as remarked on the Engineer's letter "approved with comment" shall be accepted as approved, when the Contractor is able to demonstrate successfully the pre-construction tests with the approved design mixes of the sprayed concrete/concrete, cement grout and equipments with respect to the test procedure laid down in the Contract Specification.

Concrete/Shotcrete Mix Design and cement grout

As proposed by the Contractor cement grout mix as design to be used for the installation of rock bolts and dowels during rock support works has been approved on 27th December, 2013.

During this reporting period sprayed concrete mix design (mix № MDS/CMC/TM 004), grade C40 has been approved and, the Contractor is requested to demonstrate successfully pre-construction test with the approved mix and equipment.

5.4.2 DSC Quality Check

Regular Routine test:

a) Sundarijal out let

- The Batching plant was calibrated on 19th and 24th February 2014, however flows within the weighing tolerance of the water and concrete admixture (plasticizer) are remaining. The Contractor has been requested to speed up the process and propose for the remaining items.
- During the production of sprayed concrete, grade C 40, 18 nos. of test cubes are casted in order to test cube compressive strength and density at 7th and 28th days.

Concrete / Shotcrete delivered from batching plant in February:

a) Headworks:

- Nil.

b) Ambathan adit:

- Nil.

c) Gyalthum adit:

- Nil.

d) Sindhu adit:

- Nil.

e) Sundarijal Outlet:

- Fiber reinforced wet sprayed concrete class C 40, 10.5 cum

f) Other

- Nil.

5.5 SAFETY

5.5.1 Work Safety

Lighting and ventilation system has been resumed at Sundarijal Site. Lighting in the Ambathan adit has also been arranged. For other sites, there is no electricity inside the tunnel. Ventilation system is totally stopped and cannot be operated due to lack of electricity. Shutdown of mechanical ventilation has led to favorable conditions for the formation of mold growth in tunnels. Mold growth is present in all the tunnels. Mold growth can degrade air quality in tunnels and they can also be toxic and harmful to human health.

UBE and CMC both have not provided sufficient PPE's e.g. Boots and Gloves for their labors.

5.5.2 Accidents

No accidents have occurred during reporting period.

5.5.3 Period Health check up

As the Contract has been terminated, no first aid clinics are in operation during reporting period.

5.5.4 Regular Health Check up of the Workers

As the Contract has been terminated, First Aid Clinics are not in operation since the termination of the Contract.

5.6 ENVIRONMENT

5.6.1 Work Sites Environment

As the Contract has been terminated, no work has been carried out during reporting period. There is no any Environmental effect in the project areas in January, 2014.

5.6.2 Camp Sites Environment

The camp sites environments are good at Ambathan Camp during reporting period.

6. Tunnel Design and Supervision Consultants

Melamchi Water Supply Development Board (MWSDB) signed a contract agreement with Melamchi Design and Supervision Consultant Consortium (MDSCC) for Detailed Design and Construction Supervision work of Headwork's and Diversion Tunnel contract no. MDS/DT/01 on 10th July 2008.

- **Date of Agreement:** 10th July, 2008
- **Name of the Consultant:** Poyry Infra AG, Poyry Environment Oy, Poyry Infra Oy and Hifab International Ltd in association with Multi Disciplinary Consultants (P) Ltd.
- **Total contract amount:** Nrs. 125,627,706 (including Nrs.7,902,500 Contingency and Nrs. 10,028,400 Provisional Sum design component) +EUR 6,124,753 (including EUR 100,000 Contingency and EUR 984,300 Provisional Sum for design component) or Total amount in EUR 7,461,360
- **Date of completion:** September, 2013 plus Civil Works Defects Liability period (October 2013- September 2014) of MDS/DT/01 contract.(The work will not be completed in time. So the Engineer's services will be required and extended in future)

Following receipt of the notice to commence from MWSDB, MDSCC mobilized members of its foreign expatriate from 25th August 2008 and local associate MULTI from 7th September 2008, and commenced the services with the preparation of Tender Design Review Report. MDSCC submitted the Tender Design Review Report Rev.1 to the Employer on 23rd October 2008.

6.1 Design

See 5.3.1 for DSC Designs.

6.2 Supervision

Ambathan Portal & Spoil Tip:

Shifting of Silica fume bags and Accelerator drums from existing storage house was completed on 5th February, 2014. On 18th February 2014, one compressor, one grout machine and 4 electric panel boards were shifted from storage house to yard by using unique crane. On 19 Feb 2014, 5 steel pipe racks were shifted from the Ambathan to Sundarijal.



Dismantling of existing storage house was carried out from 6th February to 9th February 2014. The sub-contractor of CMC, BIRA Furniture has started the construction of Ware house on 26th February, 2014.





Inventory of explosive and accessories at Ambathan Site Bunker was done on 7th February 2014. The summary of the quantities are tabulated as below.

Item	Delay No.	Unit	Quantity
Non-electric Delay Detonators	1	nos.	724
	3	nos.	1,144
	5	nos.	767
	7	nos.	536
	9	nos.	1,168
	11	nos.	863
	13	nos.	320
	15	nos.	1,645
	17	nos.	400
	19	nos.	400
Electric Detonators		nos.	348



Existing CRCC material's Geo-textiles were provided to the CMC/UBE for the access road maintenance along Zero km - Gyalthum road section. The summary of the quantity are tabulated as below.

GEO-TEXTILE RECORDS

Date of Delivered	Quantity	Locations
10/2/2014	3 roll	Zero Km to Gyalthum section

Minister of Urban Development Mr. Chhabi Raj Panta, Secretary Mr. Kishore Thapa, Mr. Krishna Prasad Acharya (ED) and others visited the Ambathan Adit and Headworks on 2nd February, 2014. Dispute Board members, Mr. Rajan Pandey (DED), Mr. Paul Blanchard (RPM) and others visited the Ambathan Adit and Headworks On 11th Feb. 2014.

Gyalthum Portal :

Regular monitoring of tunnel condition is continued. New overbreaks are not observed in the tunnel since the stoppage of construction works.





Fuel tanks have been installed in front of Gyalthum adit site. Similarly, batching plant foundation construction is nearly complete.

Construction of foundation for workshop as well as storage place for sand and gravel is ongoing.

Repairing works and cleaning works are going on inside tunnel. Similarly, maintenance of Contractor's camp at the adit site is continuing.

Joint Safety inspection was carried out by CMC and MDSCC representatives on 4th February at Gyalthum site.

Dispute Board members visited Gyalthum site on 11th February.

	
Preparing foundation for fuel tanks	Fuel tanks installed at adit site
	
Preparing foundation for batching plant	Nearly complete batching plant foundation

	
Preparing foundation for workshop	Preparing foundation for sand and aggregates store
	
Gathering of local people for solving social problems	Board officers trying to convince local people for solving social problems
	
Visit of Dispute Board at Gyalthum site	Dispute board visit inside the tunnel

Sindhu Portal :

Leveling the portal area and spoil tips area were completed during this month. Dismantling of rails from the portal area was completed.

Old batching plant was dismantled. Batching plant, old machinery items and materials were shifted behind labor camp.

Dismantling of rails up to Junction area were completed. Electrification inside tunnel up to junction area Ch 0+750 was completed during this month.

Ventilation was installed and operated since 27th February, 2014. Among 3 fans, 2 are connected with switch box and only 1 is in running condition. Generator does not supply enough current to operate 2 fans together.

CMC has brought following machinery and operated during this month: Kato Crane (45 t capacity)-1, Excavator (110 PC)-1, Loader (L70C)-1, Loader (L130C)-1, unique truck/crane-1 and Dozer -1.

CMC has been mobilized following manpower during this month, working hours: 7:00hrs to 12:00hrs and 13:00hrs to 18:00hrs.: Site incharge-1, foreman -1 driller -2, shotcrete operator-1, boomer operator -2, loader operator -1, mechanic -1, welder- 1, electrician- 3 helper-5, Security guards-3, labors-10. Kato crane operator -1, Excavator operator- 1,helper(plant)- 2, health assistant-1,Safety Supervisor- 1,Ambulance driver- 1, Security officer- 1 and Store keeper- 1. (Note: shotcrete operator and boomer operator are working as labors due to lack of equipments at site).

The Engineer have inspected and recorded stock of explosives at Sindhu bunker and MPB bunker on 9th February 2014. Sindhu: Total detonators 12104 nos. and at MPB bunker: Emulsion 74925 Kg, detonators: 151,600nos.

Due to strike of local people in Bansbari V.D.C., Thakle, access road Ch 4+000, all activity regarding to the upgrading access road and dismantling work at portal area was stopped on 4th February to 7th February 2014. Main reason for strike was conflict between SUP and local people.

From one excavator major parts (Valve and operation control system) were stolen by someone on 07 February. Excavator was parked on Access road Ch 2+700.

Survey was carried out in adit tunnel to mark Chainage in every 5m interval on 25th February 2014.

Following items were taken by CMC from CRCC's stock during this month:

S.N	Item	Type/Size	Quantity	Date
1	Rebar (L=6m)	16mm	100nos	01/02/2014
2	Rebar(L=6m)	8mm	50nos	01/02/2014
3.	Rail trolley		1nos	08/02/2014
4.	Rail line	12m	6nos	25/02/2014
5.	Wooden slipper		49 nos.	25/02/2014
6.	Rebar (L=5.84m)	8mm	36nos	26/02/2014
7.	Rebar(L=5.84m)	25mm	4nos.	26/02/2014
8.	Rebar(L=5.84m)	8mm	70nos	28/02/2014

Safety inspection was conducted by Mr. Stefan Stensson (STE) and safety team of CMC on 2nd February, 2014.

The Engineer issued the site communication sheet DSC CWC SC 04 Topic: Safety notification" on 25th February, 2014.

Dispute Board Members together with DED Mr. Rajan Pandey, RPM Mr. Paul Blanchard, STE Mr. Stefan Stenson and team of CMC were visited site and discussed about debris flow and its protection on 11th February, 2014.

RPM Mr. Paul Blanchard and STE Mr. Bjorn Albino visited and inspected site activities on 12th February, 2014.

DRPM Mr. Arun Sharma and Deputy Contract Manager Mr. Bhagwan Shrestha visited and inspected site activities on 13th February, 2014.

STE Mr. Stefan Stensson visited and inspected site activity on 14th February, 2014.

RPM Mr. Paul Blanchard, STE Mr. Bjorn Albino and STE Mr. Stefan Stensson visited and inspected site activity on 27th February, 2014.

	
<p>Shifting equipments from portal area to the behind labor camp</p>	<p>Removing drain filled soil from the road</p>
	
<p>Shifting of materials from portal area to behind the labor camp.</p>	<p>Dismantling of rails.</p>
	
<p>Explosive: Emulsion stock at MPB bunker.</p>	<p>Explosive: Detonator stock at MPB bunker</p>
	
<p>Foundation of Gabion wall at Ch 5+200</p>	<p>Drain cleaning inside tunnel</p>







	
Roller at work Ch 7+000.	Arranging rails properly by Kato Crane
	
Leveling the ground at spoil tips area.	Dozer leveling the ground
	
Drain cleaning at Ch 10+000	Ventilation installation at portal

Sundarijal Site:

Underground excavation is being performed by conventional drilling and blasting (CBM) tunneling method. Heading and benching method is applied for Niche. The excavation for niche has been done on the left wall of the outlet water tunnel at Ch. 23 + 877.8 to Ch. 23 +856.60. Total 21.2m niche has been advanced. The width of the niche from Ch.23 +888 to 23 +866 is 3m and from 23+866 to 23 +856.6 is 5m.

The tunnel face blasting has been commenced from 17th February, 2014. The tunnel has been advanced from ch. 23+797.00 to Ch. 23 +783.6 that is 13.4m has been advanced.

Total eight (08) blasts in niche and nine (09) blasts in outlet water tunnel face has been done till 28th February, 2014. Muck loader, Wagon bucket and tram car has been used for mucking. Arrangement of water and compressed air pipe, drain cleaning, invert cleaning, arrangement of electric cables and extension of ventilation duct towards tunnel face has been done. Installation and calibration of batching plant has been completed. Also, Construction works of workshop and store has been completed. Maintenance and upgrading of the Contractor's, Engineer-Employer camp has been done. Survey works has been done by CMC surveyor in outlet water tunnel for convergence measurement and face survey. Forty (40) tons Plasticizer arrived on site on 4th February, 2014. Japanese Ambassador visited Sundarijal site on 4th February, 2014.

 <p>03.02.2014 16:3</p>	 <p>24.02.2014 15:3</p>
Construction works for niche	Loading the explosive
 <p>03.02.2014 11:1</p>	 <p>12.02.2014 10:8</p>
Workers working in a workshop	Mucking by tram car
 <p>13.02.2014 17:1</p>	 <p>10.02.2014 08:5</p>
The rock mass of the niche	

	
Spraying shotcrete in a niche	Batching plant
	
DRPM inspecting stock of cement in a store	Muck loader in a workshop

6.3 Payments to the Consultant (DSC)

The detail of the Payments to the Consultant as per the end of the reporting is shown in **Annex-I**.

Reports:

Forty four (44) reports are submitted till February, 2014 by the Engineer.

Meeting:

4th Monthly Progress Review and Coordination Meeting was held at MoUD on 3rd February 2014.

1st Meeting between Dispute Board members and the Employer, Engineer and Contractor was held at Sundarijal site on 10th February 2014.

9th and 10th Bi-weekly Progress and on 13th and 26th February 2014 Management Meeting between the Engineer and the Contractor were held.

PROGRESS OF CWC CONTRACT No. MDS/DT/01

Sundarijal – Jorpati Road:

Contract No. MDS/DT/01: (Headworks and Diversion Tunnel Construction) with the contractor CRCC-CMIIC JV has been terminated by the contractor CRCC-CMIIC JV on 12th September 2102 and by the Employer on 25th September 2012.

The initial work value of the Contract on 26th September 2012, the day the contractor stopped the works, is NPR 581,350,916.65. However, there are a few work items which need to be measured e.g. access road works, debris flow protection works, permanent rock support works, etc.

6.4 Consultant's Personnel

There is no fluctuation of MDSCC personnel during this reporting period.

7. Construction of Camp at Melamchi Pul Bazar(Contract Package II)

The Letter of Acceptance issued to the Lowest Evaluated Bidder and a contract agreement signed on 27th April, 2009.

- **Date of Agreement:** 27th April, 2009
- **Total contract amount:** NRs.67,979,376 including VAT
- **Name of the Contractor:** Gauri Parbati-Danfe-Siruwa-Sunaula J/V
- **Date of completion:** One year construction period plus one year DLP

The construction work for 5 (five) officer's houses, two guest houses, staff quarters 2 buildings are completed. The taking over certificate has been issued to the Contractor on 29th December 2011 with some outstanding works. The defect liability period was expired on 28th December 2012. The progress of construction work was all together nearly 99%. The Transformer installation work has not started yet. Some outstanding works recorded while issuing the taking over certificate are not done by the Contractor. The Contractor has not handed over the site and As Built Drawing to the Employer yet.

8. Design Supervision Consultant for Water Treatment Plant (NJS)

This component is not in the critical path. The NJS (Nippon Jogesuido Sekkei Co. Ltd.) is the Design and Supervision Consultant for the Water Treatment Plant. A contract agreement was signed on 27th February 2002 between MWSDB and NJS in association with Binnie Black & Veatchi (International) Ltd., Mott MacDonald Ltd., and Nepal Consult (P) Ltd for design, tendering and Construction Supervision works of the Water Treatment Plant. The NJS restarted the work at MWSDB in December 2009.

- **Date of Agreement:** 27th February, 2002.
- **Name of the consultant:** Nippon Jogesuido Sekkei Co Ltd. (NJS Consultant in association with Binnie Black & Veatchi (International) Ltd., Mott MacDonald International Ltd., and Nepal Consult (P) Ltd
- **Total contract amount:** JPY 431,369,972
Nrs. 99,049,161
- **Date of completion :** 12 months (design), 12 months (Tender procedure), and 27 month (Construction Supervision)

The NJS (Nippon Jogesuido Sekkei Co.Ltd) in association with Binne Black & Veatchi (International) Ltd., Mott MacDonald International Ltd. and Nepal Consult (P) Ltd is the Design and Supervision Consultant for the Design and Construction Supervision work of Water Treatment Plant. After inconclusive termination of the bidding process for construction of WTP, the MWSDB had decided to proceed re-bidding work of WTP on 27th September 2011. The pre-bid meeting was held on 8th June 2012. Three bids were received from the six prequalified bidders and were opened on 25th July 2012.

The master work schedule of Water Treatment Plant has been revised. The commissioning date of Water Treatment Plant will be fixed after finalizing the complete construction and commissioning schedule of tunnel. The Engineer was attended in the Project Progress meeting with the Secretary/ Joint Secretary of MoUD, Executive Director and DED of MWSDB, Contractor, PMC, JICA and ADB on 3rd February, 2014. There were meetings with Engineer, Contractor and Employer in MWSDB meeting hall. Memoranda were issued to the Contractor on various dates regarding Contractor's Submittals, drawings, Transmittal notes and letters and approval of major equipment for procurement were carried out. Also routine office work including submission of invoices and monthly report were carried out.

9. Water Treatment Plant Construction

The contract for the construction of the Water Treatment Plant was signed between MWSDB and the Contractor **VA Tech Wabag Ltd and Prativa Industries Ltd JV**, for a total contract price of NRS 4,204,641,908 (Nepalese Rupees Four Billion Two Hundred Four Million Six Hundred Forty one thousand Nine Hundred and Eight only, exclusive of VAT on 10th July

2013. Details of the contract are as follows:

- **Contract No** :WTP/01
- **Date of Agreement** : 10th July, 2013.
- **Name of the contractor** : VA Tech wabag Ltd and Prativa Industries Ltd JV.
- **Total contract amount** : NRS 4,204,641,908(Nepalese Rupees Four Billion Two Hundred Four Million Six Hundred Forty one thousand Nine Hundred and Eight only) including provisional sum and contingency.
- **Date of Commencement** :1st January, 2014.
- **Date of completion** : 810 days 27 month (Construction Supervision).

The Commencement letter was issued by the Engineer to the Contractor on 1st January, 2014. Time for Completion is 810 days (27 Month).The Contractor commenced mobilization of staff, equipments and materials during this month. Memorandum were issued to the Contractor by the Engineer in various dates on Contractor's Drawings, Transmittal Notes, Letters and emails and approval of major equipment for procurement were carried out. The Foundation Stone Laying for Water Treatment Plant was inaugurated by the Honorable minister for urban development on 4th February 2014 in the presence of Ambassador of Japan, JICA Chief Representative, secretary, other secretaries, and MWSDB staffs, Consultants, Contractor Governments Officers and Media Persons. The Contractor commenced mobilization of additional staff, equipment and materials during this month. Earthwork in excavation for WTP structure, boundary wall and site survey continued. The Engineer Office Erection continued.

10. Project Management Consultant (PMC) III

A contract agreement was signed on 26th July 2009 between MWSDB and Lahmeyer International in association with Total Management Services and Butwal Power Company Ltd to provide the strategic project management skills, to ensure timely and high quality implementation management performance, to provide technical advisory and capacity building services to MWSDB A detailed inception report was developed and submitted to MWSDB in October 2009. Forty three (43) reports are produced till February, 2014.

- **Date of Agreement:** 26th July 2009
- **Name of the Consultant:** Lahmeyer International GMBH in association with Total Management Services and Butwal Power Company Limited
- **Total Contract Amount:** US\$ 933,964 in Foreign Currency. Euro 933,304 in Foreign Currency and NRs. 73,355,392 in Local Currency.
- **Commencement Date:** 26th July 2009.
- **Date of Completion:** 25th July 2014.

PMCI is handling the responsibilities of Project Management support works, attending in different progress meetings with MWSDB and other concerned Consultancy and Contractors. PMCI is supporting to the MWSDB in procurement management, construction management and financial management of the project during reporting period. He is reviewing and recommending for payments on the IPCs. The Team leader and Deputy Team Leader of PMCI were attended in various meetings with Employer, Engineer and Contractor for different contract packages during reporting period. On 4th February 2014 Team Leader and Deputy Team Leader were attended in the Foundation stone laying Ceremony of WTP at Sundarijal site. On 10th February, 2014 Team Leader visited the Sundarijal site With DAB member and MWSDB officials and attended in the kick off meeting with them. On 11th March, 2014 He visited the Melamchi site with DAB Members and MWSDB officials.

Besides these activities PMC III is involving as following:

1. Advising and assisting the MWSDB on cost control and scheduling.
2. Assisting the MWSDB to maintain and improve project management system.
3. Assisting the MWSDB, HSMVSUPIC and project consultants to take timely actions to enhance project performance and mitigate any adverse constraints.
4. Assisting the MWSDB to improve and maintain appropriate project performance monitoring, evaluation and reporting systems.
5. Providing the MWSDB with independent monthly reports on implementation and management, identifying risks and opportunities, and suggesting mitigation measures that may assist and improve the projects effective implementation;
6. Monitoring compliance and assisting the MWSDB to maintain appropriate fiscal

- management and monitoring systems.
7. Facilitating the coordination of implementing and funding agencies, activities, staff, consultants, contractors and the public.
 8. Advising and assisting the MWSDB in effective contract management and Claim control.
 9. Advising and assisting the MWSDB in preparing, inviting, evaluating and negotiating all construction bids.
 10. Monitoring contract variations and extensions of time, and building the capacity of the MWSDB to keep an up-to-date record of contract prices and completion dates.
 11. Assisting the MWSDB in monitoring and maintenance of all administrative and financial systems and procedures needed to enable the MWSDB to ensure the effective coordination and implementation of the project consultancies.
 12. Building the capacity and enabling the finance unit of the MWSDB to keep a summary record of the overall project financial commitments and expenditures and to forecast, prepare and refine annual budget for the Project

Besides regular advice to the Project, PMCI has focused on liaison with Design and Supervision Consultant for Tunnel, UAR/02 Access Road consultant and social safeguard activities. TL PMC is supporting the Employer in the case of International Court of Arbitration” Marushin Shitaka-Tundi JV verses MWSDB.

Table 1: PMC III Inputs during Reporting Period

Description	Man-month Input		Remarks
	Contract Provision	As of February 2014	
Expatriate – Professional	60	48.19	
National – Professionals	106	108.40	Excluded Support Staff

C. Critical Path Project Activities

There is no Critical Path Project Activities in Contract MDS/DT/02.

D. Updated Schedule

The updated master implementation schedule is shown on **Annex-II**.

E. Social and Environmental Support

For social and environment support of the project a Safeguard and Social Development Support Consultant (SSDSC) is being implemented. Integrated Consultants Nepal (ICON) Pvt. Ltd in Joint Venture with Consolidated Management Services Nepal (CMS) has been selected for the SSDS services of Malachi Water Supply Project. Social Development Support Consultant (SSDSC) is recruited and mobilized from 30th November 2009. Now SSDSC has proposed the Consolidated Social Development Support to provide supports to SG Unit and the HSMVSUPIC, MVSUPIC on the implementation of Social Uplift Programme, Environment Management Plan, Public Relations Programmes, and Resettlement Action Plans for Consulting Services -Safeguards and Social Development Support.

- **Date of Agreement:** 22nd November , 2009.
- **Name of the Consultant:** Integrated Consultants Nepal Pvt Ltd in Joint Venture with Consolidated Management Services Nepal Pvt Ltd.
- **Total Contract Amount:** NRs. 71,077,094.92 (With 13% Vat)
- **Date of Completion:** 54 Months.

General

Under the contract, a total of 954 (350 Experts and 604 Support staff) person-months of consulting services comprising of (i) Team Leader, (ii) Resettlement Officer, (iii) Environment Officer / Engineer (iv) Public Relation/Social Mobilization Officer (v) Civil Engineer and (vi) Pool of Experts are to be provided. During July 2010, it was revised with the approval of MWSDDB as a total of 968.5 (340.5 experts and 628 support staff). Presently all the proposed staff as scheduled are fulfilled and working within the project.

Till February, 2014 a total of 212.378 person-months have been utilized by Consultants, 4.400 person-months by the staff of SCI. Similarly 583.106 person-months among the support staff of SSDS have been consumed till this reporting period from contractual amount. Similarly a total of 154.367 MM person-month has been consumed from contingency or provisional sum by associates and technical staff. A summary of the inputs of each individual consultants are shown in following tables.

Man-Months Consumed by the SSDS Consultants till February, 2014

SN	Position	Contractual MM	Previous Period	During February, 2014	Total	Remaining MM
1	Team Leader (TL)	54	40.101	1.0	41.101	12.899
2	Environment Officer/Engineer	50	38.971	0.0	38.971	11.029
3	Resettlement Officer	54	35.839	0.0	35.839	18.161
4	Public Relation/Social Mobilization Officer	50	44.500	1.0	45.500	4.500
5	Civil Engineer	54	49.967	1.0	50.967	3.033
6	Pool of Experts	80	0	0	0	80.000
	Total	342.000	209.378	3.0	212.378	129.622

Man-months Consumed by the SCI Experts and Associates till February, 2014

SN	Position	Contractual MM	Previous Period	During February, 2014	Total	Remaining MM
Expert						
1	Monitoring and Evaluation Expert	2.70	2.700	0.000	2.700	0
2	Zoologist/Fishery Expert	0.00	0.000	0.000	0.000	0
3	Biodiversity/Watershed/Botanist	1.70	1.700	0.000	1.700	0
4	Hydrologist	0.00	0.000	0.000	0.000	0
5	Resettlement/PR Expert	0.00	0.000	0.000	0.000	0
	Total	4.400		0.000	4.400	0.00

Man-Months Consumed by the Support Staff till February, 2014

SN	Position	Contractual MM	Previous Period	During February, 2014	Total	Remaining MM
1	Surveyor	54.000	53.558	0	53.558	0.442
2	Overseer					
3	Sub-Overseers (2)	30.00	30.000	0	30.000	0
4	Environment Assistant	54.000	50.000	1.0	51.000	3.000
5	Lab. Technician	54.000	48.870	1.0	49.870	4.130
7	Social Mobilizes (3)	162.000	144.000	3.0	147.000	15.000
8	Office Manager/Accountant	54.000	50.000	1.0	51.000	3.000
9	Assistant /Secretary	54.000	50.000	1.0	51.000	3.000
10	Computer Operator	54.000	48.678	1.0	49.678	4.322
10	Office assistant/Messenger	54.000	50.000	1.0	51.000	3.000
11	Office boy/Sample Collector	64.000	48.000	1.0	49.000	15.000
Total		634.00	573.106	10	583.106	50.894

Man-Months Consumed by the Associates and Technical Staff till February, 2014

SN	Position	Estimated MM	Previous Period	During February, 2014	Total	Remaining MM
1	Monitoring and Evaluation Associate	51.933	43.824	1.00	44.824	7.109
2	Interdisciplinary Associate	5.833	5.833	0.00	5.833	0.00
3	Resettlement Associate	6.710	6.710	0.00	6.710	0.00
1	Surveyor	43.00	33.000	2.000	33.000	8.000
2	Overseer					
3	Sub-Overseers (2)	68.000	60.000	2.000	62.000	6.000
Total		175.476	149.367	5.000	154.367	31.109

1. Activities and Progress**1.1 Social Uplift and Capacity Building**

The main objective of the SUP is to engage local participation in the mitigation of direct and indirect project impacts and to create a base for long-term development in project-affected VDCs, to improve quality of life. The selected sectors for SUP implementation are: (a) Cultural and Environmental Protection and Conservation, including Buffer Zone Development; (b) Health; (c) Education; (d) Income Generation and Community Development; and (e) Rural Electrification.

Regarding the progress of these components, following activities were carried out by SSDS consultant;

Social Uplift Program

- Attended several meetings with different stakeholders to solve the problems regarding compensation and other social issues especially at MAR, SAR, GAR and Sindhu and Gyalthum adit site.
- Reviewed MWSDP related news and articles which published in local and national papers.
- Prepared Monthly progress report covering of January, 2014.
- Monitored the activities carried out under SUP and HUP activities.
- Carried out meetings with different stakeholders regarding project issues at MAR, SAR, GAR and Sindhu/ Gyalthum adit people about crop compensation and irrigation canal during road maintenance works by CMC.
- Collected and analyzed water quality of Water sample from six different sites (Ambathan, Gyalthum River, Talarang River, Melamchi Pul Bazaar, Sindhu Audit and Melamchi canteen) for water quality monitoring.

Specific Consultancy Inputs/Activities and Progress

All the members of the consulting team except Environmental Engineer and Resettlement Officer are working in Melamchi site office at Melamchi in close collaboration with Safeguard Unit for all the activities as specified in ToR. Both the consultants have resigned from their respective jobs. Following are the major activities to be carried out by the consultants:

Activities of SUP program in HSMVSUPIC, MVSUPIC and HUPIC

Based on the Identification of Community needs by the Village Community Committee (VCC) and as specified in SUP implementation Plan, the following components/programs of SUP have been determined and implemented in 14 VDCs of HSMC since 2010

- a) Buffer Zone
- b) Health
- c) Education
- d) Rural Electrification / Infrastructure development
- e) Income Generation & Community Development (IGCD).

Regarding the progress of these components, following activities were carried out by the consultants:

- Reviewed the progress of each activity.
- Assisted HSMVSUPIC and MVSUPIC and HUPIC for the resolution of local problems regarding MWSP.
- Monitoring of SUP projects is continuing.
- Assisted to prepare information regarding MWSDB and SUP to disseminate in different occasion.
- Assisted to prepare the estimates, supervision and monitoring of the program of SUP and HUP activities.

Financial and physical program of HSMVSUPIC for FY 2070/71

The construction and training on various components are of the program was completed for the FY 2069/70. A total amount of NRs 55,896,164.85 was expended under SUP through 14 VCCs and HSMVSUPIC. A total of NRs 70,000,000.00 has been allocated by MWSDB for SUP through HSMVSUPIC. The central committee meeting held on 20th January, 2014 has allocated the budget as shown in following table. Summary of the planning of FY 2070/71 are in table below.

Summary of Budget Allocation for FY 2070/71

SN	Program	Amount	%
1	Institution Development	45,10,000	6
2	Infrastructure development	2,41,00,000	34
3	Buffer zone	1,00,00,000	14
4	Education	97,50,000	14
5	Income Generation and Community Development	1,27,40,000	18
6	Health	40,00,000	6
Total		6,51,00,000	93
Admin. Cost		49,00,000	7
Grand total		7,00,00,000	100

The budget has been allocated by VCC and activities as follows;

Summary of Physical and Financial Program of FY 2070 / 71 for HSMVSUPIC.

Program Details	Unit	Rate	Amount	Remarks
Institutional Development				
HSMC General Assembly	1.0	6,00,000.0	6,00,000.0	
VCC program review and public audit program	14.0	15,000.0	2,10,000.0	
Institutional Development program For HSMC central committee	2.0	1,40,000.0	2,80,000.0	
Workshop on VCC/SUP planning process	1.0	4,50,000.0	4,50,000.0	
Publication (Dairy, Calendar, Bulletin etc)	1.0	4,00,000.0	4,00,000.0	
Levy study program for Project affected areas.	1.0	5,00,000.0	5,00,000.0	
Office management program (Meeting hall Management, Motorcycle, office room management, Purchase of computers etc.)	1.0	16,50,000.0	16,50,000.0	
Program monitoring and evaluation	12.0	35,000.0	4,20,000.0	
Total			45,10,000.0	
Rural Infrastructure program				
Project planning for VCCs in Participatory method	14.0	1,00,000.0	1,40,00,000.0	
Previous payment of projects which was agreement in FY 069/070 For following VCCs (Melamchi, Bansbari, Haibung, Palchok, Thakani, Sindhukot & Mahankal)	-	-	7,100,000.0	
Need based central program	1.0	1.0	30,00,000.0	
Total			2,41,00,000.0	
Buffer Zone program				
Construction of Range post building (Central program)	1.0	50,00,000.0	50,00,000.0	
Buffer Zone program for Helambu VDC	1.0	20,00,000.0	20,00,000.0	
Buffer Zone program for Kiul & Ichok VDC	2.0	15,00,000.0	30,00,000.0	
			1,00,00,000.0	

Education program				
Project planning for VCCs in Participatory method	14.0	4,00,000.0	56,00,000.0	
Previous Payment for Indrawati campus Building	1.0	7,00,000.0	7,00,000.0	
Technical School Programme	1.0	1,500,000.0	15,00,000.0	
Playground Construction	1.0	6,00,000.0	6,00,000.0	
Games & Extra Curricular activities program	1.0	2,00,000.0	2,00,000.0	
Library support program for higher secondary school & college	1.0	8,50,000.0	8,50,000.0	
Tamang mother language training program	1.0	3,00,000.0	3,00,000.0	
Total			97,50,000.0	
Income Generation & community development program				
Project planning for VCCs in Participatory method	14.0	5,00,000.0	70,00,000.0	
Capacity building program for Co-operatives	1.0	16,40,000.0	16,40,000.0	
Income Generation program for marginalized poor group	1.0	7,00,000.0	7,00,000.0	
Income Generation program for poor women, Dalits & ethnic groups	1.0	7,00,000.0	7,00,000.0	
Possibility study of Agriculture program for 14 VDCs	1.0	2,00,000.0	2,00,000.0	
Cold store infrastructure development program	1.0	25,00,000.0	25,00,000.0	
Total			1,27,40,000.0	
Health program				
Project planning for VCCs in Participatory method	14.0	2,00,000.0	28,00,000.0	
Previous Payment for ambulance at Melamchi PHC	1.0	6,00,000.0	6,00,000.0	
Awareness of health and pre-health checkup program	3.0	2,00,000.0	6,00,000.0	
Total			40,00,000.0	
Total (1+2+3+4+5+6)			6,51,00,000.0	
Administrative Cost			49,00,000.0	
			7,00,00,000.0	

Financial and physical programs of MVSUPIC for FY 2070/71

The construction and training on various components of the program was completed for the FY 2069/70. A total amount of NRs 15,609,792.00 was expended under Sup through five VCCs and MVSUPIC. A total of NRs 15,000,000.00 has been allocated by MWSDB for SUP through MVSUPIC. Summary of the planning of FY 2070/71 are shown in below table.

Summary of Budget Allocation for FY 2070/71

Program	Allocated Amount	Percentage
IGCD	2,84,770.00	1.90
Infrastructure	56,25,000.00	37.50
Education	20,30,000.00	13.53
IGCD	36,40,230.00	24.27
Health	23,70,000.00	15.80
Total	1,39,50,000.00	93.00
Admin. Cost	10,50,000.00	7.00
Grand total	1,50,00,000.00	100.00

The budget has been allocated by VCC and activities as follows;

Summary of Physical and Financial Program of Fiscal Year 2070 / 71 (MVSUPIC)

Activities	VDCs					Total
	Panchkhal	Jaisithok	Deupur	Madhevsthan	Chandeni	
Education	3,00,000.00	3,30,000.00	2,00,000.00	1,00,000.00	11,00,000.00	20,30,000.00
Health	6,50,000.00	6,20,000.00	4,00,000.00	3,50,000.00	3,50,000.00	23,70,000.00
IGCD	4,55,000.00	4,35,000.00	11,50,000.00	11,60,000.00	4,40,000.00	36,40,230.00
Infrastructure	10,95,000.00	9,50,000.00	15,90,000.00	10,40,000.00	9,50,000.00	56,25,000.00
Institution Development (Cost of Fourth annual Assembly and Fifth VCC Council)						2,84,770.00
Administrative Cost						10,50,000.00
Total	25,00,000.00	23,35,230.00	33,40,000.00	26,50,000.00	28,40,000.00	1,50,00,000.00

Continuation of SUP Program under Central program of HSMC

Some previous programs of SUP under central program are ongoing. The status of ongoing SUP work under central program is given in below table.

On-going programs under HSMVSUPIC

SN	Name of Project	VDC	Starting Year	Completed Year	Progress in %	Remarks
1	Construction of Sub Health Post Building	Bansbari	067/68	-	85	Continue

Support for HUP activities

SSDS has provided technical support to prepare the estimates and supervision of construction works. In this regard estimates for Helambu Museum and Timbu Hospital building have been completed. Following activities/sub-projects are planned by HUP for this FY 2070/71;

Programs under HUP during FY 2070/71

SN	Description of works	Location	Total Estimate	Remarks
1	Ambulance	Helambu-8, Timbu	15,00,000.00	
2	Community Toilet	Helambu-All wards	24,00,000.00	
3	Additional works at Golmadevi SS	Helambu-8, Timbu	2,50,000.00	
4	Remaining works at Healthpost	Helambu-8, Timbu	7,22,000.00	

5	Remaining works at Museum building	Helambu-8, Timbu	37,39,931.00	
6	Maintenance of Timbu – Tarkeghyang RR	Helambu	2,00,000.00	
7	Maintenance of Elmunesa – Nakote-Melamchighyang RR	Helambu	2,00,000.00	
8	Purchase of goods for Museum	Helambu-8, Timbu	53,93,417.00	
Grand Total Amount			1,10,39,410.00	

Progress of HUP activities of FY 2070/71

Regarding the progress of these components, following activities as mentioned in following table were completed and payments were done.

Status of HUP progress till February 2014

SN	Work Description	Location	Cost sharing in NRs			Remarks
			Total	MWSD 80%	User 20%	
1	Construction of Health-post Building (remaining works)	Timbu-8	30,35,333.71	23,56,069.40	13,19,403.45	
2	Construction of Museum Building (remaining works)	Timbu-8	57,58,231.40	43,96,987.01	12,61,428.27	
3	Construction of meeting Hall on the top of Museum Building	Timbu-8	5,35,777.59	4,00,000.00	1,35,777.59	
Total			93,29,342.70	71,53,056.41	27,16,609.31	

Village planning workshop/council under HSMVSUPIC

After the allocation of budget to all VCC and programs a meeting was held in all VCC to prioritize the different projects under component and the dates were as follows;

Village planning workshop/council under HSMVSUPIC

SN	VCC	Date	Location	Remarks
1	Bansbari	3 rd Feb., 2013	Bansbari-4 Cottage	
2	Ichok	5 th Feb., 2013	Ichok-6, Mahankal Health post	
3	Bhotechaur	6 th Feb., 2014	Bhotechaur-1, VCC Hall	
4	Heibung	6 th Feb., 2014	Haibung-6 Sub-health post Hall	
5	Duwachaur	7 th Feb., 2014	Duwachaur-4, Pokhare Health post Hall	
6	Sindhukot	7 th Feb., 2014	Sindhukot-1 Dharti Chaur Health post	
7	Phatakshila	7 th Feb., 2014	Phatakshila-9 Thanti, Health post Hall	
8	Mahankal	7 th Feb., 2014	Mahankal-1 Gyalthum, Saraswati HS hall	
9	Talamarang	7 th Feb., 2014	Talamarang-7 VCC Hall	
10	Kiul	20 th Feb., 2014	Kiul-5, Bagar VCC Hall	
11	Melamchi	8 th Feb., 2014	Melamchi-5 Taar, VCC Hall	
13	Helambu	1 th Feb., 2014	Helambu-8, Timbu	
14	Palchowk	9 th Feb., 2014	Palchowk-3, VCC Hall	

Activities of SUP program in HSMC and Mandan Valley Area:

Meetings at HSMVSUPIC/MVSUPIC and VCCs

HSMC Central Committee Meeting

No meeting was held during this month.

Other meetings

A meeting with HSMC officials for work distribution to sub-overseers was held on 17th February, 2014. Besides these, following meeting were held during this month

Summary of above mentioned meetings are shown in following Table.

Number of meeting/ workshop/training under SUP during February, 2014

Date	Types of Training/ Meeting/Workshop	Agenda	Result	No of participants	Venue
17 th February,	Meeting with SUP officials regarding work division among Sub-overseers	Work distribution	The meeting distributed the job to three Sub-overseers	10 including HSMC officials	HSMC office
25 th February,	Meeting with DED	Work progress	Brief about Sindhu, Gyalthum and Ambathan issues	12 including Site officials and SSDS consultants	Melamchi site office

Other meetings regarding local problems

Meetings to solve the UAR, MAR, AAR, GAR and portal area problem raised by local people were held and solved several times. To handle and solve the local level problems following local level meetings were carried out in presence of local people. Numbers of local level informal meetings are shown in following table.

Number of local level meeting to solve local problems during February, 2014

Date	Types of problems	Agenda	Result	No of participants	Venue
12 th February	Work stopped at Timbu by the letter issued by Ranger	Suggestion from ranger	According to Ranger the letter was sent to Langtang National Park and the responsibility is with LNP	5 SSDS, CMC and Ranger	Timbu
14 th February	Local communities of Mahankal-sirise called the meeting.	Compensation of trees, crop loss, construction of irrigation canal and local employment	The communities did not want to listen any talk and pressured to solve the agenda of meeting which was committed by MWSDB earlier. Due to absence of authorized MWSDB staff the problems could not be addressed and the local stopped the works regarding tunnel.	30 Locals and SSDS consultants	On the spot
19 th February	Follow up meeting with Local communities of Mahankal-sirise.	Compensation of trees, crop loss, construction of irrigation canal and local employment	The community were in view of negotiation with MWSDB on conditions of mandates like assurance of crop and trees, employment to	10 Locals and SSDS consultants	On the spot

Date	Types of problems	Agenda	Result	No of participants	Venue
			locals, address on irrigation canal and electricity issues		
24 th February	Negotiation with Local communities of Mahankal-sirise called the meeting.	Compensation of trees, crop loss, construction of irrigation canal and local employment	Demands were addresses as compensation of trees and crop loss will be finalize within one month, survey of irrigation canal will be done after forming UC by communities and regarding electricity, attempts will be done from MWSD in their written application to NEA	30 Locals and SSDS consultants	On the spot

1.2 PUBLIC RELATION

The public relation issues are very crucial to implement in the infrastructure projects. Many local problems and disturbances raised by the local people were settled with dialogue in local level. The local issues were settled in close coordination with MVSUPIC and HSMVSUPIC mobilizing CIRT.

Dissemination of Information

- The compensation distribution system and grievances handling process have been informed to APs regularly.
- The information regarding the projects activities has been regularly disseminated to APs and other stakeholders through various media (Meetings, Interactions, Visits, etc.).
- Reviewed MWSDP related news published in national news papers.

Local level meeting for grievance redresses and other events

Several informal meetings at were carried out with local communities regarding condition of roads, losses of property by landslides, losses of crops due to damages of irrigation canal, crack houses issues etc.

Major Events

- Honorable Minister of Urban Development Mr. Chabi Raj Panta and Secretary Mr. Kishor Thapa visited Melamchi camp site and Ambathan tunnel including intake site on 2nd February, 2014. MWSD officials including ED and DED accompanied with the Team. Mr. KP Acharya ED, MWSD presented the project status at Melamchi camp site. Minister assured to support MWSD and local communities during and after diverting the Melamchi water.
- Stone laying ceremony of 85 MLD Water Treatment Plant at Sundarijal was done by Honorable minister of Urban Development Mr. Chabi Raj Panta was done on 4th February, 2014. Secretaries Mr. Kishor Thapa (MOUD) and Mr. Tulsi P. Sitaula MPPW) and other officials from MOUD including ED, DED and officials were present in the ceremony.

Public expectations and grievances

No grievances were forwarded by MWSDDB to Consultants during this period. Follow up of previous grievances are in progress.

In addition to the above mentioned works; following activities are also done regularly by Public Relation Officer:

- Attended various informal meetings with different stakeholders to solve the problems related to MWSP.
- Attended the meetings with different stakeholders regarding present issues.
- Reviewed MWSDP related news published in local and national papers.

1.3 ENVIRONMENT MANAGEMENT

This chapter discusses the task accomplished in the month February, 2014 by Environmental Management Program (EMP) under Safeguard and Social Development Support Consultant (SSDS) at Melamchi construction sites. The various activities incorporated during this period are as follows:

a. Environmental Monitoring

The environmental monitoring is essential to assess changes in physical, biological, socio-economic and cultural changes of the environment during project construction and operation period. The monitoring of the project evaluates whether or not the project has complied to maintain qualitative standard of water, air and noise as prescribed by environmental laws and regulations. Monitoring is also needed to quantify the degree of impacts on the existing environment by project implementation and it enables to adapt appropriate mitigation measures, minimize detrimental effects on the environment and in particular to human life. Considering this, monitoring of air, water and noise quality of Melamchi Drinking Water Project area were conducted, which is presently under construction. Thus, a regular and systematic monitoring of Air pollution, Water pollution, Noise level, River discharge, Aquatic and terrestrial biodiversity is recommended during the construction period of any developmental activities. Realizing these facts, some activities were regularly conducted and some are planned to conduct very near future.

The project is under construction since 2000 A.D and targeted to complete in 2017 A.D. The project underwent a full scale Environmental Impact Assessment (EIA) process. Environmental management action plan has recommended monitoring actions related to air, water and noise quality under construction. This chapter discusses the task accomplished in the year 2012 by Environmental Management Program (EMP) under Safeguard and Social Development Support Consultant (SSDS) at Melamchi construction sites.

Noise Quality

Due to the lack of constructional activity, noise level monitoring was not conducted in the project during this period.

Air Quality

Due to the lack of constructional activity, air pollution level monitoring was not conducted in the project during this period.

Water Quality

In this first quarter of year, the EMP team carried out the regular water quality monitoring in strategic locations fixed in 2010. As the tunnel construction work was not undergoing in this month, the water sampling sites is reduced to only nine points. The water sample collected for this month February, 2014 is given in below table.

One sample from each site was taken in a 1000 ml PVC bottle for chemical analysis and for bacteriological analysis 200 ml sample was collected in sterile bottle. Sampling time and weather condition were recorded in each site. The Temperature, pH, Electrical Conductivity (EC) and DO were measured in in-situ using portable instrument and probes (the names of the instruments are given in the table of *water quality test report*).

The collected water samples were analyzed following standard analytical procedures (*mentioned in water quality test report table*) in Environmental Laboratory at site office, Melamchi. Different methods like Titrimetric, electrometric, Spectro-photometric and membrane filter methods were used for water quality analysis.

Water Sampling Points, Date & Time

S.N.	Sampling Site	Month, Date and Time
1	Melamchi Intake (Ups)	At 11:30 on 12 th February 2014.
2	Melamchi at Gyalthum	at 9:00 on 12 th February 2014
3	Melamchi at Talarang	at 8:00 on 12 th February 2014
4	Melamchi at Pul Bazaar	at 13:00 on 12 th February 2014
5	Gyalthum River	at 11:30 on 12 th February 2014
6	Sindhu River	at 12:00 on 11 th February 2014
7	Bagmati at Sundarijal	at 09:30 on 11 th February 2014
8	Melamchi Camp	at 15:0 on 11 th February 2014
9	Sindhu Camp	at 12:40 on 11 th February 2014

Result and Discussion:

The results of water quality analysis for the month of February, 2014 comparing with World Health Organization (WHO) guideline value and National Drinking Water Quality Standard (NDWQS) are included in table A, table B. and table C depicts the baseline data for water quality.

Table A Water Quality Test Result, February, 2014

Parameters	Units	Sampling Sites							Method
		Intake (Ups)	Melamchi at Gyalthum	Gyalthum River	Melamchi at Talamarang	Melamchi at Pul Bazaar	Bagmati at Sunderijal	Sindhu River	
Physical									
Temperature	OC	10	12	15	11	14	13	14	Thermometer
EC	µS/cm	198	205	232	238	258	402	205	Conductivity meter
Turbidity	NTU	1	1	3	3	9	12	5	Spectrophotometric
TDS	mg/l	130.7	135.3	153.1	157.1	170.3	265.3	135.3	Gravimetric
DO	Mg/l	8.5	10.2	8	8	7.5	7.9	8.2	DO meter
Chemical									
pH	-	7.80	7.50	7.60	7.68	7.60	8.20	7.5	pH meter
T. Hardness	mg/l	20.00	34.00	36.00	44.00	38.00	68.00	24.0	EDTA Titrametric
Calcium	mg/l	7	8	7.00	7.50	8.50	12.00	4.80	EDTA Titrametric
Magnesium	mg/l	0.61	3.41	4.50	6.14	4.07	9.24	3.89	EDTA Titrametric
T. Alkalinity	mg/l	21.0	23.0	31.3	29.5	31.2	47.7	47.6	Titrametric
Carbonate	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Titrametric
Bicarbonate	mg/l	26.00	28.00	38.20	36.00	38.00	58.21	58.00	Titrametric
Hydroxide	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Titrametric
Chloride	mg/l	2.80	2.70	4.12	2.80	6.12	22.10	6.1	Argentometric Titration
Ammonia	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	0.32	<0.2	Spectrophotometric
T. Phosphate	mg/l	<0.01	0.02	<0.01	0.01	0.02	0.06	0.1	Spectrophotometer
Manganese	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Spectrophotometer
Nitrate	mg/l	0.42	0.50	1.00	0.40	1.90	2.40	0.8	Brucene
Total Iron	mg/l	0.08	0.06	0.03	0.02	0.05	0.10	0.1	Phenonthroline
Microbiological									
Total Coliform	Cfu/100ml	1	48	661	850	19	TMTC	32	Membrane filter
E coli	Cfu/100ml	Nil	42	566	623	6	TMTC	11	Membrane filter

NDWQS: National Drinking Water Quality Standard, WHO GV: World Health Organization Guideline Value. TMTC: Too Many to Count

Table B: Water Quality Test Result February, 2014

Parameters	Units	WHO GV	NDWQS	Sampling Sites		Method
				Melamchi Camp	Sindhu Camp	
Physical						
Temperature	0C	-	-	15	14	Thermometer
EC	µS/cm	1500	1500	405	236	Conductivity meter
Turbidity	NTU	5	5 (10)	1	1	Spectrophotometric
TDS	mg/l	1000	1000	267.30	155.76	Gravimetric
DO	Mg/l	-	-	8.6	6.5	DO meter
Chemical						
pH	-	6.5-8.5	6.5-8.5	7.8	7.5	pH meter
T. Hardness	mg/l	500	500	56	48	EDTA Titrametric
Calcium	mg/l	-	200	10	8.12	EDTA Titrametric
Magnesium	mg/l	-	-	7.54	6.8	EDTA Titrametric
T. Alkalinity	mg/l	500	-	54.35	42.65	Titrametric
Carbonate	mg/l	-	-	<0.1	<0.1	Titrametric
Bicarbonate	mg/l	-	-	66.28	52.01	Titrametric
Hydroxide	mg/l	-	-	<0.1	<0.1	Titrametric
Chloride	mg/l	250	250	12.01	6.48	Argentometric Titration
Ammonia	mg/l	1.5	1.5	<0.2	<0.2	Spectrophotometric
T. Phosphate	mg/l	-	-	0.02	0.03	Spectrophotometer
Manganese	mg/l	0.1	0.2	<0.1	<0.1	Spectrophotometer
Nitrate	mg/l	50	50	1.98	1.01	Brucene
Total Iron	mg/l	0.3	0.3	0.16	0.12	Phenonthroline
Microbiological						
Total Coliform	Cfu/100ml	Nil	Nil	Nil	Nil	Membrane filter
E coli	Cfu/100ml	Nil	Nil	Nil	Nil	Membrane filter

NDWQS: National Drinking Water Quality Standard, WHO GV: World Health Organization Guideline Value, TMTC: Too Many to Count

Table C Baseline data of Water Quality for January

Parameters	Units	Sampling Sites									Method
Reference Year		2006	2011	2011	2006	2011	2006	2011	2011	2011	
		Intake (Ups)	Melamchi at Gyalthum	Melamchi at Talamarang	Melamchi at Pul Bazaar	Gyalthum River	Sindhu River	Bagmati at Sunderijal	Sindhu Camp	Melamchi Camp	
Physical											
Temperature	0C	NA	10	11	NA	8	NA	14	13	13	Thermometer
EC	µS/cm	47	157	201	48	202	60	509	292	274	Conductivity meter
Turbidity	NTU	<1	5	6	2	4	11	65	1	2	Spectrophotometric
TDS	mg/l	NA	102	205	NA	150.2	NA	336	193	178	Gravimetric
DO	Mg/l	NA	-	-	NA	-	NA	-	-	-	DO meter
Chemical											
pH	-	7.2	-	-	7.4	-	7.4	-	-	-	pH meter
T. Hardness	mg/l	20	42	32.3	17	27	17	63	58.2	44.8	EDTA Titrametric
Calcium	mg/l	6	7.1	12.3	5	11.8	5	18	7.2	8.9	EDTA Titrametric
Magnesium	mg/l	1	6.5	0.1	1	0.7	1	1.8	3.4	6.6	EDTA Titrametric
T. Alkalinity	mg/l	19	38	36.3	22	23	22	100.1	120	28.3	Titrametric
Carbonate	mg/l	Nil	<0.1	<0.1	Nil	<0.1	Nil	<0.1	<0.1	<0.1	Titrametric
Bicarbonate	mg/l	23	29	46	27	46.5	27	122.1	144	34.5	Titrametric
Hydroxide	mg/l	Nil	<0.1	<0.1	Nil	<0.1	Nil	<0.1	<0.1	<0.1	Titrametric
Chloride	mg/l	1.8	25.89	19.9	1.3	11.56	2.7	25.2	31.82	15.23	Argentometric Titration
Ammonia	mg/l	<0.1	<0.2	<0.2	<0.1	<0.2	0.1	0.26	0.2	<0.2	Spectrophotometric
T. Phosphate	mg/l	<0.01	0	0.02	<0.1	0.04	0.1	0.18	0.1	0.09	Spectrophotometer
Manganese	mg/l	<0.1	0.13	0.03	<0.1	0.31	0.3	0.71	0.01	0.09	Spectrophotometer
Nitrate	mg/l	0.1	2.01	2.5	0.1	0.89	0.3	4.8	0.35	1.2	Brucene
Total Iron	mg/l	<0.1	NA	NA	<0.1	NA	<0.1	NA	NA	NA	Phenonthroline
Microbiological											
Total Coliform	Cfu/100ml	NA	NA	NA	NA	NA	NA	NA	Nil	Nil	Membrane filter
E coli	Cfu/100ml	NA	NA	NA	NA	NA	NA	NA	Nil	Nil	Membrane filter

the water quality test result of strategic locations only Ribarma intake, Melamchi camp site and Sindhu camp site are discussed. For the other locations of the Melamchi River, people do not use the water for drinking purpose. Total coliform and *E. coli* counts have exceeded WHO GV/NDWQS guideline value Nil for drinking water at all sampling sites in Melamchi River as well in Sindhu and Sundarijal. Total Coliform and *E. coli* have increased. All other parameters for are within the guideline values. Test results show that the water is drinkable in both Melamchi and Sindhu camp sites.

B.Fish Assessment

Fish sampling were carried out in all the five strategic locations which were fixed to check fish catch and diversity every month. In every location EMP had 30 samples (through the cast net for 30 times) throughout about 150 to 200m section of Melamchi River. A fisherman was hired and EMP team had spent a whole day for fish assessment. Five sites selected between intake site and Melamchi Pul-bazaar is given in below table.

Fish Assessment Location and Date

SN	Station	Location	Months and Date in 2014
1	Station 1	Melamchi River near Timbu River confluence	February 13
2	Station 2	Melamchi River near Gohare River confluence	February 13
3	Station 3	Melamchi River near Gyalthum River confluence	February 13
4	Station 4	Melamchi River near Talamarang River confluence	February 13
5	Station 5	Melamchi River near Indrawati River confluence	February 13

In Melamchi River fish assessment was carried out for months February, 2014 for the specified locations as mentioned in above table. Fish catch data from various sampling stations have been recorded. Fishing gear used was cast net. The length and weight of every fish caught were measured and fishes were identified. The same data were used for fish length-weight relationship study. Catch composition percentage, fish catch ratio species richness index were analyzed. Then the maximum and minimum ranges for both length & weight for each station were calculated. The numbers of species caught from each sample site were also recorded. The fish caught were released into the River after study. Fishes were identified with the indigenous knowledge of the local fisherman and validated for zoological name from available relevant literatures.

The different species of fish caught in cast net from five sites along with their caught percentage in this month is given in the below table:

Percentage of fish species caught

Fish Species	Unit	Months in 2014
		February
<i>Schizothorax plagiostomus</i> (Asala)	No/%	8/88.89
<i>Psilorhynches pseudecheneis</i> (Tite)	No/%	1/11.11
Total number of fish species caught	No.	9

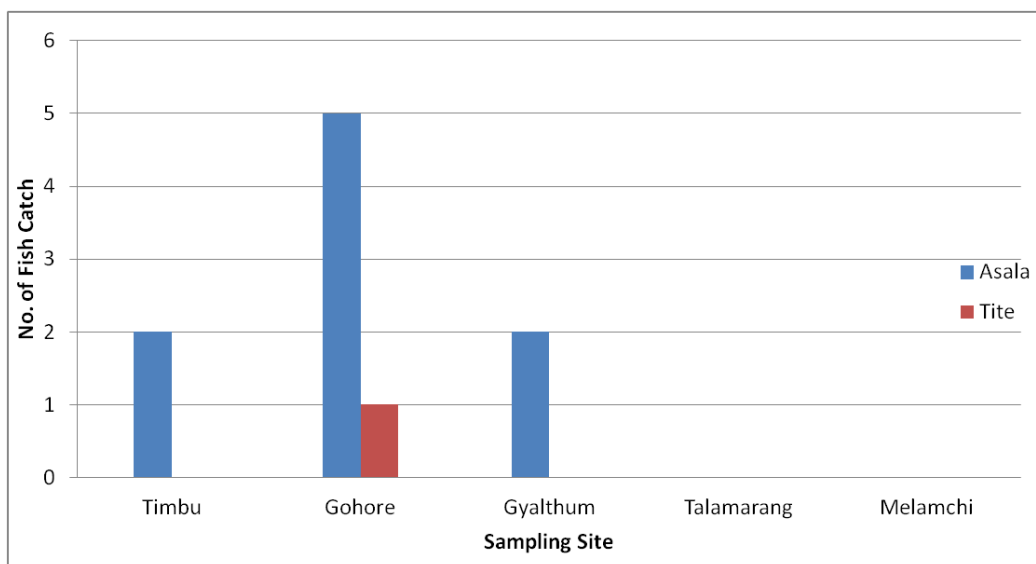
The fish caught status is given in below figure and the detail of the fish assessment of February, 2014 is given in table below.

Fish assessment detail for February, 2014

In this month eight individual of Asala and one individual of Tite were caught and there was no

Site	Species Name	Local Name	Length (in cm)	Weight (in Gram)			Total Count	Total Weight	Catch Compo- sition (%)	Species Richness Index	Catch Ratio (catch/ sample)
			Max	Min	Max	Min					
Timbu	<i>Schizothorax plagiosomus</i>	Asala	12.7	12	16.5	15.1	2	31.6	100	0	2/30
Gohore	<i>Schizothorax plagiosomus</i>	Asala	24.5	11.8	144.5	13.1	4	209.9	80	1.43	4/30
	<i>Psilorhynches pseudecheneis</i>	Tite	10.2		6.3		1	6.3	20		1/30
Gyalthum	<i>Schizothorax plagiosomus</i>	Asala	14.7	13.8	25.7	17.6	2	43.3	100	0	2/30
Talamarang							0	0	0	0	0/30
Melamchi							0	0	0	0	0/30
Total							9	291.1			

fish catch from two sites. The catch ratio reflects the local fishermen statement that there are very less number of fishes in this season. The richness value came as 0 as there were only one species. The highest catch ratio is found 4/30 means there were 4 individual catch in 30 samples. And the data shows that Asala is the most common one.



The comparative figure of fish caught in different stations

There was no illegal fishing activities noticed during fish survey and other site visit in these this months but EMP team has encountered many fish traps (collapsible loops) placed across the Melamchi river.

For this month, the fish length-weight relation studied and the linear regression is significant ($p=7.94e-05$). This study higher the sample units is better. Here the relation is presented only for Asala fish as another recorded species Tite has only one catch record.

Environment Mitigation

The Environment Officer is vacant in Consultant Team. Civil engineers of the team prepared two estimates and forwarded to MWSDB for approval as mentioned in the following table.

Estimate submitted to MWSDB for Environment Mitigation works

SN	Work Description	Location	Cost sharing in NRs		
			Total	MWSDB	User
1	River bank protection works at U/s of headwork	Helambu-7	5,08,705.95	4,06,964.76	1,01,741.19
2	Construction of cascade (outfall structure)	Fatakshila	5,55,643.00	4,44,514.40	1,11,128.60

1.4 Resettlement

Land acquisition is one of the major activities of MWSP. Land acquisition for public purposes in Nepal is largely governed by the Land Acquisition Act (LAA) 2034 (1977A.D). The LAA sets out compensation standards and benefits such as compensation for lost assets at market value, provision for alternative land and compensation for standing crops and trees. To cover resettlement related needs of the Project Affected Persons (PAP's), MWSDB prepared a Resettlement Policy Framework (RPF), approved by the Cabinet in 2057 (2000 AD). The policy also ensures benefits to non-titled persons such as encroachers and squatters with appropriate displacement allowances for relocation and income restoration assistance. The Compensation Determination Committee (CDC) headed by Chief District Officer is responsible for evaluation of property and its compensation. The RP emphasizes that compensation should enable project-affected people to maintain the existing to better standard of living.

RAP compensation and mitigation measures include the following:

- Compensation upon acquisition by the project of land, crops, trees and house or commercial enterprises.
- Mitigation for loss of water due to diversion of Melamchi River
- Displacement allowances
- Rehabilitation measures
- Loss of government property
- Loss of community facilities and resources
- Community losses
- General counseling

Status of Compensation Payment during February, 2014

No compensation was paid during this month. The detail of the compensation payment till date is given in below table.

Status of compensation payment February, 2014

Location	Date	VDC	Area in Ropani	Parcel No.	Owner's Name	Amount (Rs)
No compensation was paid during this month						
The compensation paid (December, 2009-December, 2012)			36.697			5,24,62,538.00
The compensation paid (January 2013-December 2013)						45,17,583.00
The compensation paid (December, 2009-February 2014)			42.387			5,69,80,121.00
The compensation paid up to November, 2009 (Received from PRC)						78,00,89,592.00
Total compensation paid till February, 2014						83,70,69,713.00

Facilitated for Grievance Handling

The grievances and claims put by the project affected families have been addressed. During this reporting period no case of grievance has been filed.

Title Transfer of Land Ownership Certificates

There is no any title transfer activity in this month.

F. Accounts and disbursements**1 Imprest Fund status**

The ADB has withheld US\$ 493,841.85 considered to be ineligible expenditure and request has been made to the Government of Nepal for replenishment of the amount in Imprest Fund by changing the source of fund from ADB to GoN. The ADB has liquidated US\$ 423,646.61 due to low rate of turnover ratio in Imprest Fund. The MWSDB is yet to receive replenishment of US\$ 255,933.90 on resubmission of required documents. there is no change in disbursement status.

2 Disbursements

The request for disbursement and Government expenditure during the reporting period is as follows:

Founding source	Currency	Amount	Source
ADB	US\$		
JICA	JPY		Information yet to be received and updated
	NRs		
NDF	Euro		
	NRs		
GoN	NRs	8,024,431	Mid January to Mid February 2013

3 Other Activities

- i. Monitoring disbursement made by the donor agencies.
- ii. Updating ADB, JICA and NDF disbursement record.
- iii. Assistance to MWSDB in providing professional support in the matter relating to Finance and Accounts as and when needed.
- iv. Updated Monthly Disbursement Report on the basis of information received from various sources.
- v. Attended various meetings with the Consultants / Contractors in the matter related with Finance/Invoice/Interim Payment Certificates.
- vi. Reviewed Various Consultant's and Contractor's invoice and Interim payment certificates/Invoices and verify claims in relations with contract provision. **(Refer to Annex III).**
- vii. Review/analyze addendum submitted by the Consultant and provide Comments and recommend necessary remedial measures.
- viii. Assisted external auditors in the process of verifying financial transactions..
- ix. Prepared final Audited Project Account for fiscal year 2012/2013 (Nepali FY- 2069/70) for submission to ADB.

Table 2: Summary of Loan / Grant Disbursement as of February, 2014 in respective Currency and Equiv. US\$

Don or	Loan Amount Mil. (US \$)	Loan No.	Cur	Disbursed as of December 2013	Disbursed during the reporting Period	Disbursed as of January 2014	Equivalent US \$ (Approx.)	Remarks / Source	Ex. rate
Asian Dev. Bank*	91.72	NEP 1820 (SF)	US \$	54,276,970		54,276,970	54,276,970		1
JBIC	46.28	NE-P8	NRs	-				Source JICA statement	
			JPY	275,943,153	5,232,539	281,175,692	2,348,084		119.747
OPEC	13.7	838 P	US \$	13,700,000	-	13,700,000	13,700,000	closed	1
NORAD	Expired	Grant	NOK	81,646,153	-	81,646,153	10,264,493	Source Project Account	7.954231
SIDA	Expired	Grant	NOK	6,742,605	-	6,742,605	899,014	Source project Account	7.5
NDF	10.45	265	Euro Equiv	5,043,488		5,043,488	6,682,910	W/A #83& W/A #84	0.754685
			NRs	96,203,578		96,203,578	1,282,714		75
Government of Nepal	73.16		NRS	3,822,945,620	8,024,431	3,830,970,051	51,079,601		75

Note *Based on MWSDB /JICA/ PMC Disbursement record; Included imprest Adv US\$ 2,076,353; excluded withheld / disallowed by ADB Equivalent US \$ may differ from the amount shown in above report due to change in Exchange Rate.

*The above figures are approximate and for reference only.

Service charges are not included in Loan Amounts.

*Reduction in disbursement is the result of Application of liquidation, adjustment and transfer to sub project 2.

Table 3: Details of Government disbursements as in the following table (Mid February, 2014).

S.N	Main Category	Total up to Mid February , 2014 (NRs)	Disbursement from Mid January 2014 to Mid February 2014. (NRs)	Total up to Mid February, 2014. (NRs)
Government of Nepal		1	2	3=1+2
1.	Operating Expenses	423,300,742.68	1,092,951.54	424,393,694.22
2.	Land Acquisition	921,228,405.36	224,100.00	921,452,505.36
3.	Furniture and fixture	3,562,343.72		3,562,343.72
4.	Vehicle & Equipment	15,915,364.91		15,915,364.91
5	Building Construction	38,114,445.18		38,114,445.18
6	Civil Works	1,985,685,411.31	7,329,525.36	1,993,014,936.67
7.	Consultancy Service	311,301,568.80	(622,146.26)	310,679,422.54
8.	Security Payment	123,837,339.50		123,837,339.50
9.	Adjustment	(1.15)		(1.15)
	Sub Total GoN	3,822,945,620.31	8,024,430.64	3,830,970,050.95
Other Source				
10.	JICA/JBIC Loan NE-P8 (DP)	543,977,425.43	7,749,460.90	551,726,886.33
11.	ADB Loan 1640	312,895,791.96	-	312,895,791.96
12	ADB Loan 1820(NEP-SF)	3,870,774,487.09	17,307,685.80	3,888,082,172.89
13	NORAD Grant	722,370,010.02		722,370,010.02
14	SIDA Grant	74,168,658.77		74,168,658.77
15	NDF-Credit#265	617,585,610.62	9,720,380.79	627,305,991.41
16	ADB Grant (TA)	20,000,000.00		20,000,000.00
17	ADB Grant (TA 4096)	68,757,878.98		68,757,878.98
18	OPEC Fund Loan No 838-P	986,871,478.41		986,871,478.41
	Total the Sources (10-18)	7,217,401,341.28	34,777,527.49	7,252,178,868.77
	Grand Total (1-18)	11,040,346,961.59	42,801,958.13	11,083,148,919.72

Disbursement based on Magh 2070 Monthly Report.

Table 4: Summary of ADB Disbursement February, 2014.

Description		Loan Amount July, 2013 (Revised)	As of Mid January, 2014	Disbursement for February, 2014	Total to date	Deducted/withheld/ Process by ADB
Cat.	Item	US \$ Equivalent				
			1	2	3=1+2	4
1A	C/W - MDS	66,475,084	34,536,069		34,536,069	
2A	Equip. Material MDS	15,065	15,065		15,065	US\$ 1,404,106.4 Imprest. (refer to W/#291).
3A	Soc./Env.Support	6,325,889	5,351,299		5,351,299	
4A	Consulting Service	11,513,530	10,922,244		10,922,244	
5A	Incremental Admin.	3,342,435	351,670		351,670	
6	Capitalization / Interest	15,198,146	1,024,271		1,024,271	
7	unallocated	8,394,498	-			
8	Imprest Account		2,076,353		2,076,353	
	Error		(2)		(2)	
Total Disbursement by ADB		111,264,647	54,276,970		54,276,970	

1. ADB Disbursement based on Withdrawal Application sent to ADB.

2 US \$ equiv is based on Ex. Rate of Nepal Rastra bank of last day of the month.

3 Disbursement by ADB may differ. Disbursement is inclusive of Imprest fund.

4.Reduction in disbursement is due to adjustment and liquidation made by ADB during the period.