Land Acquisition and Resettlement Due Diligence Report

Document stage: Draft
Project number: 42266
August , 2017

IND: Augmentation of Storage Capacity and Transmission main under Jai Hind WTP - Clear Water Reservoir, Service Main and Electromechanical works.- TR-3/WS 33

Prepared by Project Management Consultant (KEIIP) for the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of February 15, 2017)

Currency Unit	=	Rupee (INR)
INR 1.00	=	USD0147
USD 1.00	=	INR 68.88

ABBRIVIIONS

ADB	–	Asian Development Bank
BPL	–	Below Poverty Line
DH	–	DiamondHarbour Road
ESR	–	Elevated Service Reservoir
GP	–	Gram Panchayat
IR	–	Involuntary Resettlement
KEIP	–	Kolkata Environmental Improvement Project
KEIIP	–	Kolkata Environmental Improvement Investment Program
KL	–	Kilo Liter
KMC	–	Kolkata Municipal Corporation
MFF	–	Multi-Tranche Financing Facility
NOC	–	No Objection Certificate
PHED	–	Public Health Engineering Department
PS	–	Pumping Station
ROW	–	Rightof Way
S&D	–	Sewerageand Drainage
STP	–	SewageTreatment Plant
LPS	–	Litres per Second
UGR	–	Under Ground Reservoir
ICI	–	Institutional Commercial and Industrial
SP	–	Stand Post

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIX

I. INTRODUCTION

A. Background

1. On 26 September 2013, the Asian Development Bank (ADB) approved the provision of loans under a multi-tranche financing facility for the Kolkata Environmental Improvement Investment Program (KEIIP or the Investment Program) for an aggregate amount not to exceed $400 million. The impact of the Investment Program will be improved access to water supply and sanitation in Kolkata Municipal Corporation (KMC). The outcome will be improved water supply, sewerage and drainage service quality and operational sustainability in selected areas of KMC. KEIIP has three outputs: (i) inefficient water supply assets rehabilitated; (ii) sewerage extension to peripheral areas continued; and (iii) financial and project management capacity further developed. KMC is KEIIP's executing agency. A project management unit (PMU) created under KMC is implementing KEIIP.

2. The first loan under it, Tranche 1 or Loan 3053-IND, amounting to $100 million, was approved by ADB on 22 October 2013, signed on 3 March 2014 and made effective on 30 May 2014. Project 1, supported by tranche 1, included subprojects for improvement of infrastructure, operations and sustainability in sewerage, drainage and water supply in KMC.

3. The proposed Project 2, supported by the proposed tranche 2 of KEIIP, will include physical and non-physical investments in water supply and sanitation improvement in KMC. Project 2 is aligned with improved access to water supply and sanitation in KMC as defined by the Investment Program.

4. Total of eight civil works packages (package SD 23- Shifted to Tranche 3) for sewerage and drainage work are proposed under Tranche 2. These include: (i) sewerage and drainage work and construction of 1 pumping station in ward no. 114 (package TR-2 SD 09); (ii) development of sewerage and drainage network in Rania box catchment including outfall structure (package TR-2 SD 10); (iii) development of sewerage and drainage network in Vivekananda Road catchment including one construction of pumping station (package TR-2 SD 11); (iv) laying of a trunk sewer along James Long Sarani (package TR-2 SD 12); (v) development of sewerage and drainage network including outfall structures in wards 123 and 124 (package TR-2 SD 13); and (vi) laying of lateral sewer in part of borough XIV & de siltation of Box drain at Picnic Garden road. (package TR-2 SD 14); (vii) sewerage and drainage mains and 2 pumping stations (augmentation of Keorapukur MPS) in Tolly's Nullah / Keorapukur Sub-basin in Borough XIII (Ward 115 and part of Ward 122) (package TR-2 SD 19) and (viii) sewerage and drainage mains and pumping stations in Churial Extension Catchment in Borough - XIII & XVI, covering part of wards122, 123 and 124 (package TR-2 SD 22);
5. Total of six civil works packages for water supply work are proposed under Tranche 2. These includes (i) Construction of Underground Reservoirs and Overhead Reservoirs, Pumping Stations and Linking Pumping Station Main for Water Supply in Joka and Adjoining Areas including Operation and Maintenance of the Pumping Stations (TR - 2

WS 15), (ii) Laying of Transmission Main from Daspara PS to UGRs at Prantik PH=III, KMC Land on Julpia Road and Transmission Main from PS to zonal Reservoir (TR-2 WS 16), (iii) Laying of Water Supply Distribution Network Including Providing Household Service Connection in 4 Distribution Areas in Joka and Adjoining Areas for the Command Area under proposed ESRs at Prantik Ph III, N-E of SSE STP and N-W of SSE STP and Existing ESR at Prantik (TR-2 WS 17A), (iv) Laying of Water Supply Distribution Network Including Providing Household Service Connection in 4 Distribution Areas in Joka and Adjoining Areas for the Command Area under proposed ESRs at Company Pukur, WBSETCL and 22 Bigha and Existing ESR at Diamond Park (TR-2 WS 17B), (v) Construction of Elevated Service Reservoir at Ramkantapur, Malpara, Charaktala, Transmission Main from UGR at KMC Land on Julpia Road to 3 ESRs; Distribution System and House Connection within Command Area of 3 ESRs (Tr-2 WS 18) and (vi) Dedicate water supply transmission main from junction of James Long Sarani to Daspara near existing pumpng station along James Long Sarani (TR-2 WS 24)

6. Two nos. Water Loss Management sub-project has been proposed under Tranche 2. These includes i) Water Loss Management within the Anandapur command area and Patuli command area of Jai Hind Water Treatment Plant ((TR-2 / WS 25)) and ii) Improvement of monitoring water supply network of KMC area and procurement of Flow Meter / Bulk Flow Meter etc. (TR-2 / WS 26) This sub-project TR-2/WS 25 focuses on enhancement of water supply system.

7. Total of twelve civil works packages for sewerage and drainage work are proposed under Tranche 3.

8. One civil works package for Water Supply work is proposed under Tranche 3 (TR-3 WS 33)

B. Need of this Project

9. The current water supply service level falls short of desired level for the following reasons:

- Inadequate transmission system
- Inadequate reservoir capacity
- Low residual pressure
- Intermittent supply
- Un-assessed water loss in the system
- Inequitable pressure at consumer points

10. An analysis has been made by the authority to identify appropriate interventions to overcome current deficiencies and to achieve target service levels for water supply in the immediate, intermediate and ultimate phase. KMC with support from ADB wants to continue the process of improving the Water Supply System through a comprehensive process involving water accountability and a Water Loss Reduction program aimed at increased efficiency in water usage. A work of water loss management in the Cossipore

service zone, taken up as a pilot project in Kolkata under Tranche 1 and another Project of Water Loss management in the Anandapur and Patuli Area undr Jai Hind WTP is a step towards the improvement of quality service and the sustainability in water supply and specifically in water distribution management.

11. The process has been continued by taking up the newly developing areas of East Kolkata, being fed from the Jai Hind WTP, under a Water Loss Management Program. The activities for the project financing related to Improvement of Water Supply components are included under in contract packages under Tranche 3 (TR-3 WS 33).

C. Scope of this Report

12. The scope of work involves augmentation of Storage Capacity under Jai Hind WTP – Clear Water Reservoir and Service Main hence a Due Diligence Report is being prepared. These areas are in ward numbers 101(Part), 102(Part), 107(Part), 108 and 110(Part). The subproject is proposed to manage to increase the quality and sustainability in water.

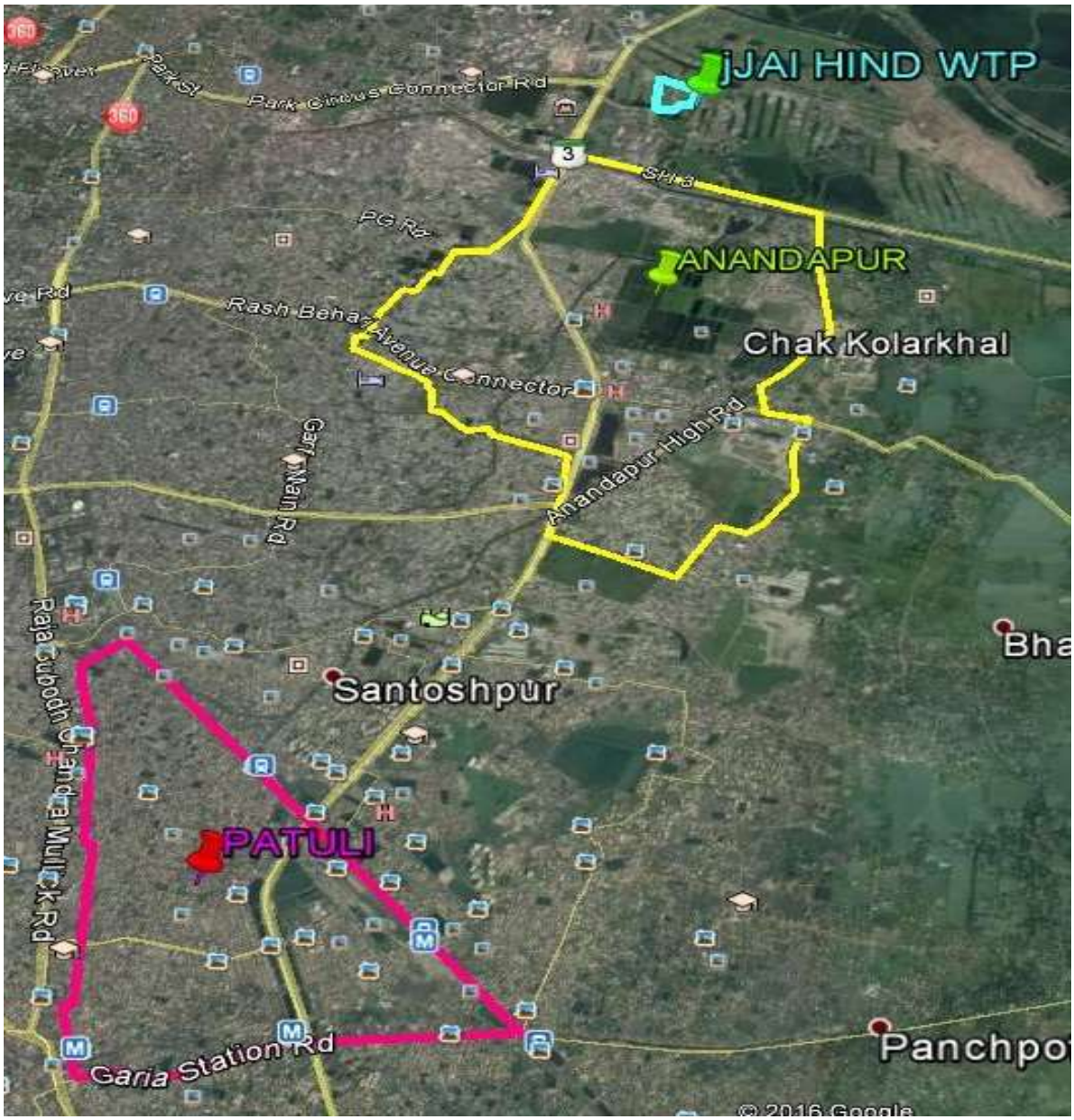
13. A due diligence process was conducted to examine the land acquisition and resettlement issues in detail, in line with ADB SPS 2009. This report describes the findings and provides copies of relevant documents, resolutions, minutes of meetings and photographs. This land acquisition and resettlement due diligence report needs to be read along with the Resettlement Framework prepared for KEIIP.

14. Upon project implementation, the Officer designated for Social Safeguards at PMU will be required to undertake a review of this due diligence, prepare a confirmation letter or report documenting any modifications for the subproject and submit to ADB; and receive a ‘no objection’ confirmation from ADB prior to start of construction in the subproject.

II. SUB-PROJECT DESCRIPTION

15. Water in the project area is being supplied from Jai Hind WTP. The Design Capacity of the Jai Hind Water Treatment Plant is 30 MGD. The average water pumped from the Jai Hind WTP, as per available records during the past 3 months is around 20.4 MGD. Clear water capacity in the WTP is presently 3MG. KMC has a plan to augment its capacity. Water from the Jai Hind Water Treatment Plant is presently pumped to the Underground Storage Reservoirs at GJ Khan, Mukundapur, Anandapur and Patuli.

GOOGLE MAP FOR JAI HIND WTP, ANANDAPURAND AND PATULI COMMAND AREA



16. Apart from works related to water loss management, additional works under this contract are:
    - Supply and Installation of additional pumping units with accessories to existing pumping stations in Jai Hind WTP (both Raw water pump house and Clear water pump house) and in Patuli pumping station
    - Laying of additional service main from booster station;
    - Construction of GLSR within Jai Hind WTP campus.
    - Connection between existing GLSR and proposed GLSR through pipe.

17. “On job” Training to KMC employees for capacity building of KMC in water loss management is also under consideration of this subproject.

III. FIELD WORK AND PUBLIC CONSULTATION

A. Outline of Field Work

18. In March 2017, field visits and stakeholder consultations were carried out at the proposed subproject site locations for water supply from Jai Hind WTP and Pumping Station and its adjoining areas. Transect walks were conducted for sample road sections in the proposed coverage area. The transect walks indicated that potential impacts would be limited to traffic disruptions and that access disruptions to properties, shops and businesses could be managed by ensuring that access planks for pedestrian access are provided. The contract will have specific provisions related to ensuring access at all times

B. Public Consultation

19. Consultations were undertaken with key stakeholders in line with ADB's requirements pertaining to environment and social considerations. Stakeholder meetings and consultations helped to identify the felt needs/concerns and apprehensions of the communities related to the project, and priorities of concerned stakeholders. Discussions were held with 20 people residing at/near and/or having businesses at/near the proposed subproject locations, of which 40 percent were women. Consultations revealed that people are distressed due to inadequate supply of water which does not meet their daily requirement. The quality of ground water is also a matter of concern for the people. The severity of the problem is higher in subproject areas which are completely devoid of proper distribution systems. The community indicated willingness to cooperate for the proposed project. A summary of discussions held is given in Table 1 below.

Table 1:Summary of Consultations with Stakeholders

DATE	LOCATION	NO OF PARTICIPANTS				STATUS OF PARTICIPANTS	TOPIC DISCUSSED	ISSUES RAISED
		MALE	FEMALE	% of Female	TOTAL			
21.03.17	Patuli (people joined from other project areas)	12	8	40%	20	Female : House Wives & SHG members Male : Servicemen & retired person	1. Introduction of KEIIP as an initiatives of Kolkata Municipal Corporation with the financial support of Asian Development Bank 2. Need and scope of work of KEIIP. 3. Laying of new pipes & replacement of old supply lines. 4. No impact on Structure, livelihood & transportation. 5. Public participation required for successful implementation of the project work.	1. Public awareness through mass campaigning on 24x7 water supply. 2. Identification & short listing of consumers having high requirement of water especially the commercial units. 3. Digging within the consumer premises shall be completed in a day's time. 4. Residents Welfare Association (RWA) / notified societies shall be informed about time schedule for digging & restoration work within the colony. 5. Formation and sustainability of user group for water stand posts is a challenging task for the community representatives until they are trained properly.

IV. LAND AVAILABILITY AND RESETTLEMENT IMPACTS

20. No land acquisition or resettlement impacts are anticipated in the proposed subproject areas under Water loss management, since there is no scope of major construction which involves significant land requirements.In addition, civil structure like underground reservoir will be constructed within the existing WTP premises and pumps will be installed within the existing pumping stations; land ownership of existing WTP and pumping stations is with Kolkata Municipal Corporation (KMC).

21. The subproject primarily focuses to increase the supply of water by increase capacity of Clear water Reservoir at Jai Hind WTP, augmentation of pumping arrangement at Raw Water and Clear water pump house at Jai Hind WTP and installation of new pump with motor at Patuli Water works. Potential temporary impacts envisaged due to the implementation of the subproject are as follows: (i) temporary disruption of water supply to the residents of the subproject area and (ii) transitory disruption of traffic/access to shops and residences due to digging and excavation for pipe laying are possible during construction. These transitory disruptions will be mitigated during subproject implementation – (i) arrangements will be made for provisions of temporary water supply lines and tanks to ensure required water supply to the community people during the laying down of new pipelines and replacement of old ones and (ii) by ensuring necessary provision of pedestrian planks, provision of adequate signage, and careful traffic management.

22. The civil work for proposed structures in the subproject area will cause traffic disruption to some extent. Traffic diversions will be made with proper traffic planning and management by the contractors in consultation with the local authorities and community to minimize this potential impact. Prior notice about the civil work will be given to the community before starting of the civil work. There will be no incidents of tree cutting and least utility shifting. Table 2 outlines the subproject components that require civil works.

Table- 2: Service Main

Proposed by KMC (WS) Dia of Pipe (mm)	Approx. Pipe Length (km)	Road Width (m)	Road Name/ Important Landmark on the Road/ Near the Road	Right of Way(ROW) ownership	Width of excavation (m)	IR Impact
600 Ø	0.6	3.4	Anandapur (opposite KMC Canal)	KMC	1.2	Nil
300 Ø	0.97	15.0 - 16.5	Baishnabghata – Patuli Road (Fire Station.)	KMC	1.0	Nil
300 Ø	0.33	5.0 – 8.0	State Garage.	KMC	1.0	Nil

Proposed by KMC (WS) Dia of Pipe (mm)	Approx. Pipe Length (km)	Road Width (m)	Road Name/ Important Landmark on the Road/ Near the Road	Right of Way(ROW) ownership	Width of excavation (m)	IR Impact
300 Ø	0.92	4.0-4.5	KMDA Service Road	KMDA	1.0	Nil
450 Ø	2.5	8.0-14.0	Raja S.C. Mallik Road	KMC	1.1	Nil
450 Ø	2.3	4.5-8.0	Panchsawar Road (Near Sammilani College and Jadavpur University Housing Society)	KMC	1.1	Nil
450 Ø	0.7	7.0-7.5	Anandapur Road (Near Manobikash Kendra.)	KMDA	1.1	Nil
450 Ø	1.5	4.5-5.0	Near Meghnad Saha Institute of Technology, Heritage Institute of Technology and Hussainpur Road.	KMC	1.1	Nil

V. CONCLUSIONS

A. Summary and Conclusions

23. No IR impacts are assessed at identified sites for sub-project components, as all proposed sites are government lands. Temporary disruption of traffic during transportation of materials to the sites will be avoided by undertaking such work at night or non-peak traffic hours, and with proper traffic management planning by contractor, in discussion with community and local authorities. KEIIP will take possession of the land for the UGR and PS under the Sub-Project.

B. Next Step

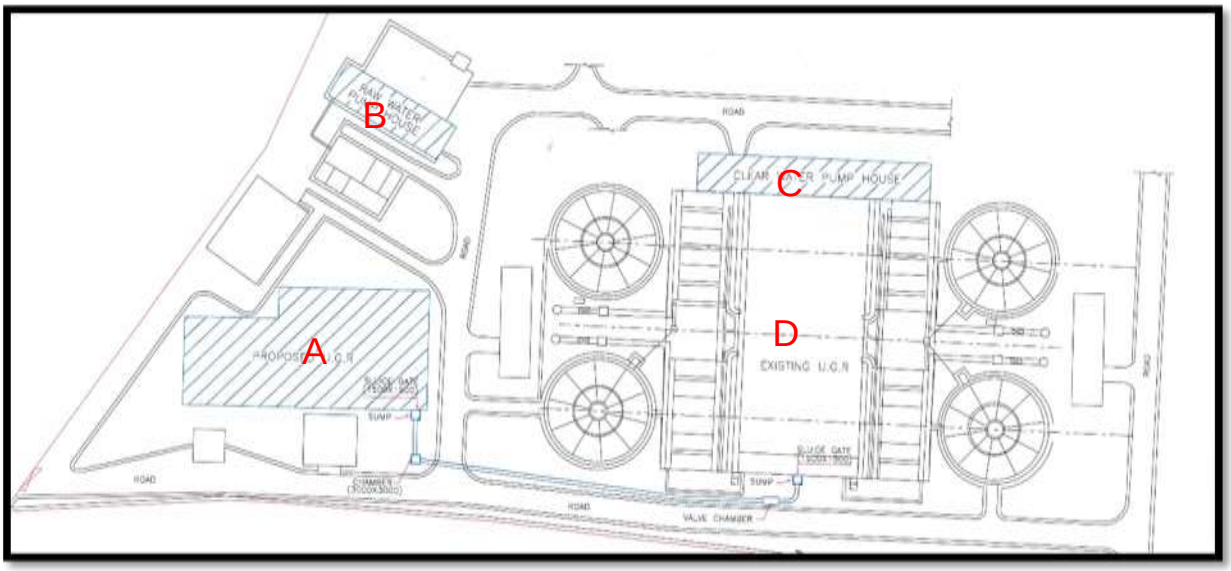
24. The DDR needs to be updated with the following information:

    i) Permission letter from KMDA and State High Way Authority have to be obtained before construction work commences and the same should be updated in the DDR.

    ii) Due diligence report to be updated upon completion of final detail design by PMU and submitted to ADB for review. ADB approval must be obtained prior to start of construction.

THE WORK SITES WITHIN KMC PREMISES
(JAIHIND WTP & PATULI PUMPING STATION)

SITE MAP (PART) WITHIN JAI HIND WTP CAMPUS

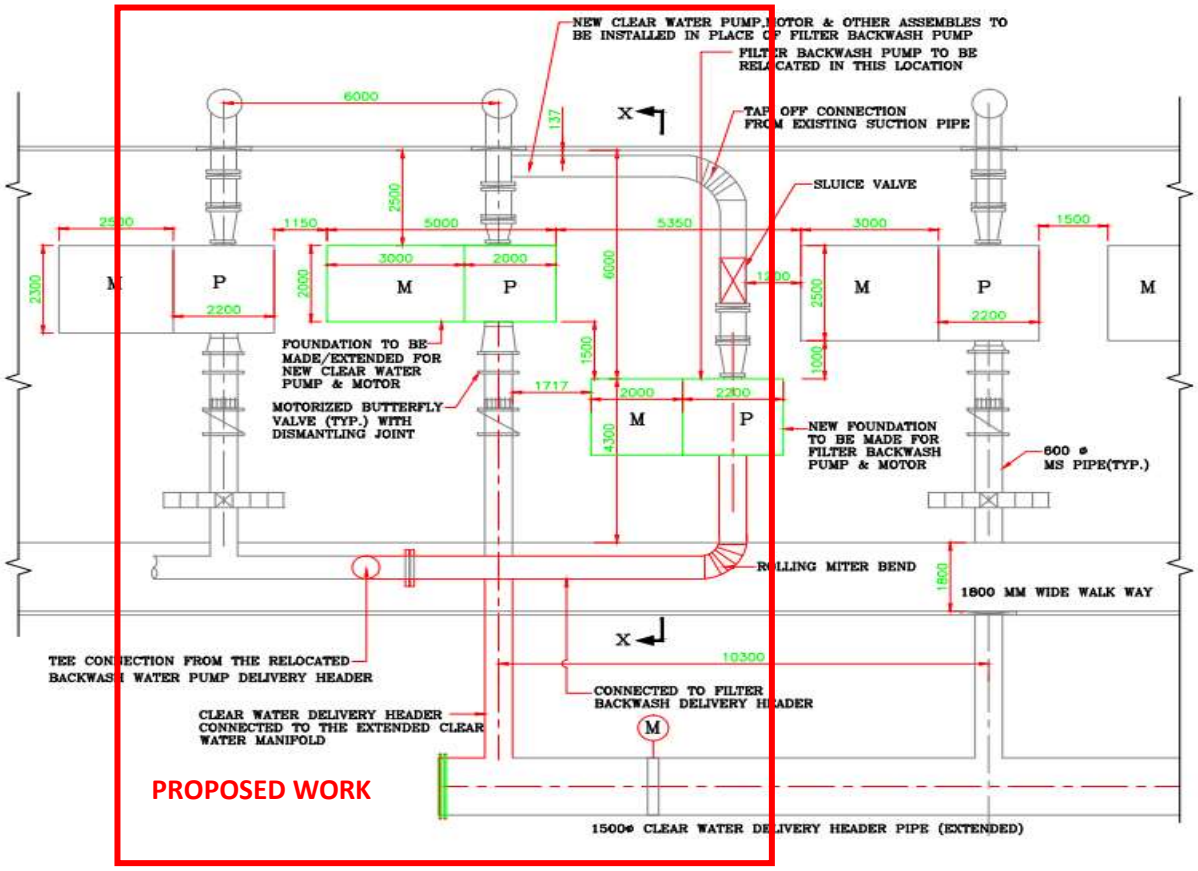


A – PROPOSED GLSR, **B**– EXISTING RAW WATER PUMPING STATION, **C**– EXISTING CLEAR WATER PUMPING STATION AND **D** – EXISTING GLSR WITHIN JAI HIND WTP CAMPUS

THE PROPOSED GLSR **(A)** WILL BE CONSTRUCTED ON THE VACANT LAND AND WITHIN THE PREMISES OF JAI HIND WTP.

	
VACANT SPACE FOR CONSTRUCTION OF PROPOSED GLSR	ROUTE FOR LAYING OF PIPELINE WITHIN THE JAI HIND WTP PREMISES FROM EXISTING GLSR TO PROPOSED GLSR

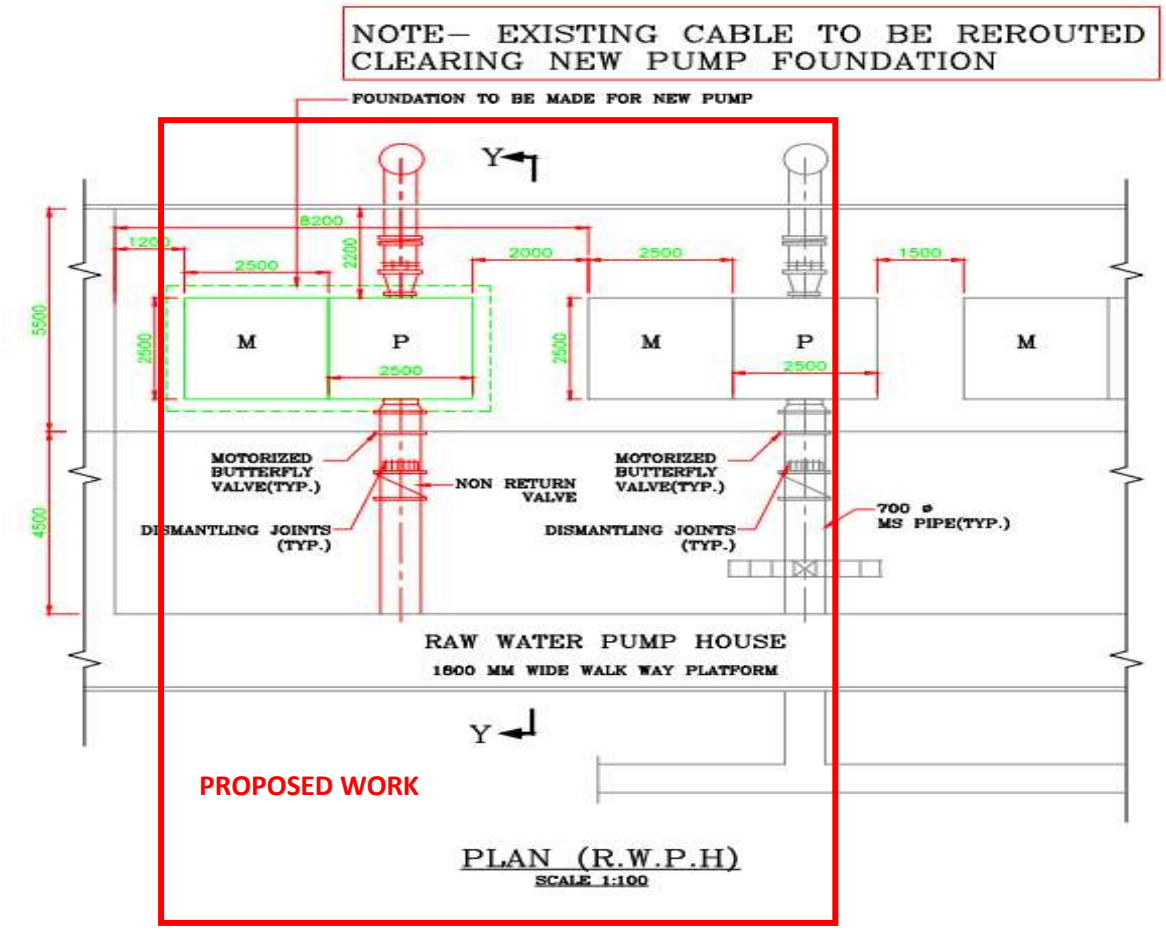
CLEAR WATER PUMP HOUSE(CWPH) AT JAI HIND WTP



PLAN (C.W.P.H)
SCALE 1:100

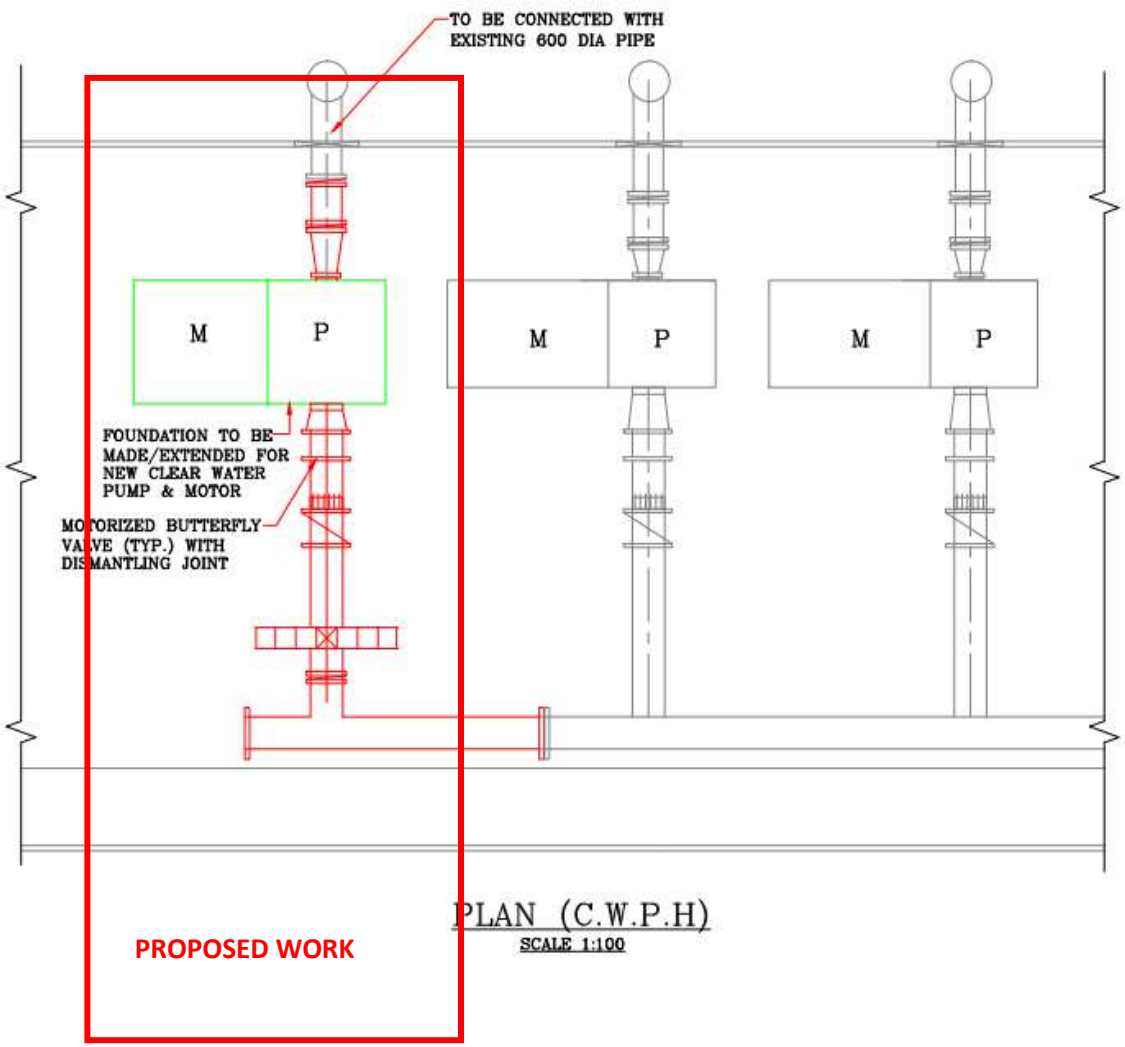
SPACE FOR INSTALLATION OF NEW PUMPS AND MACHINERIES IN THE EXISTING CWPH

RAW WATER PUMP HOUSE (RWPH) AT JAI HIND WTP



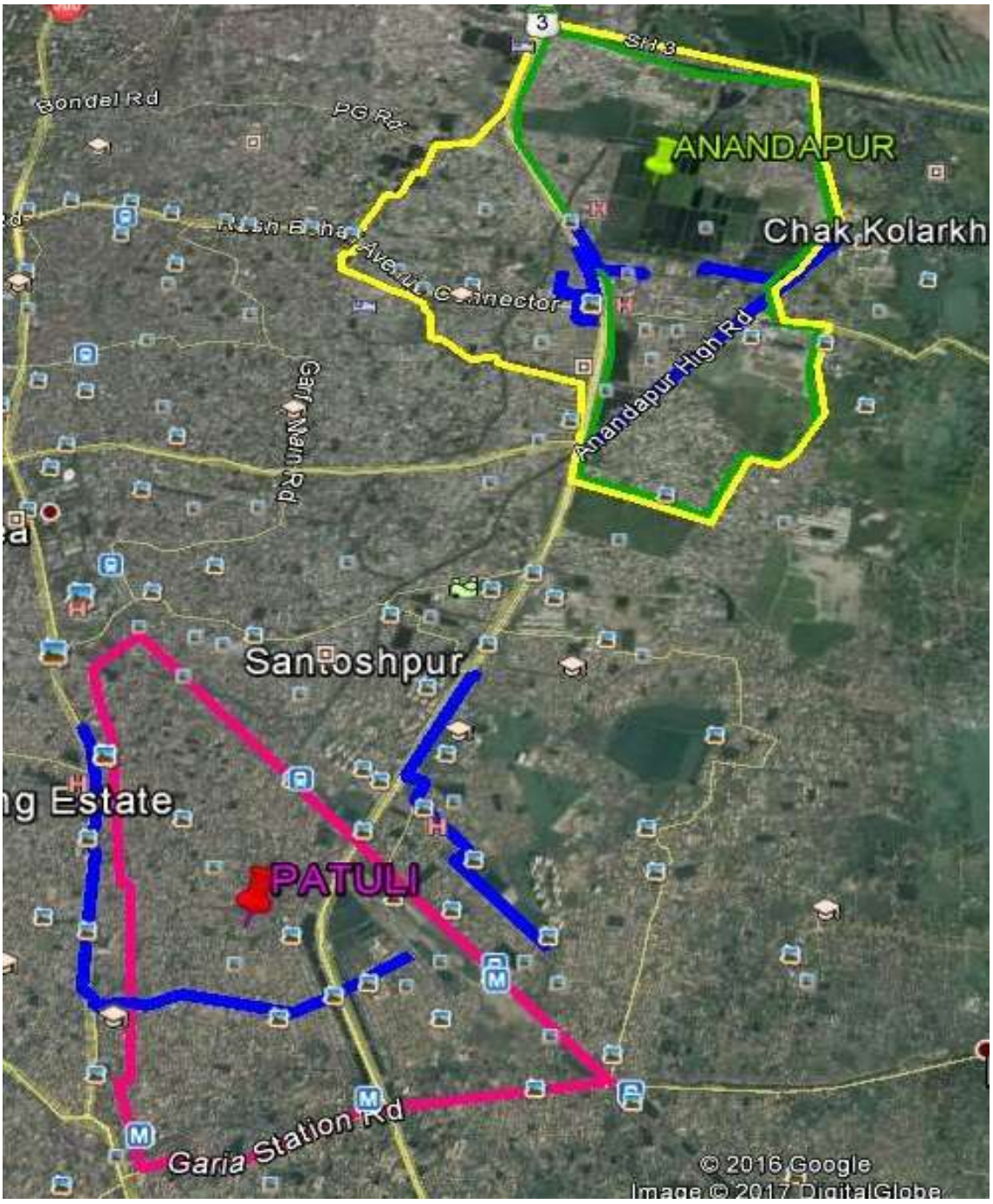
SPACE FOR INSTALLATION OF NEW PUMPS AND MACHINERIES IN THE EXISTING RWPH

CLEAR WATER PUMP HOUSE(CWPH) AT PATULI



SPACE FOR INSTALLATION OF NEW PUMPS AND MACHINERIES IN THE EXISTING CWPH WITH THE EXISTING DELIVERY HEADER

GOOGLE MAP FOR SERVICE MAIN FROM BOOSTER PUMPING STATION



Service Main Along Main Roads.

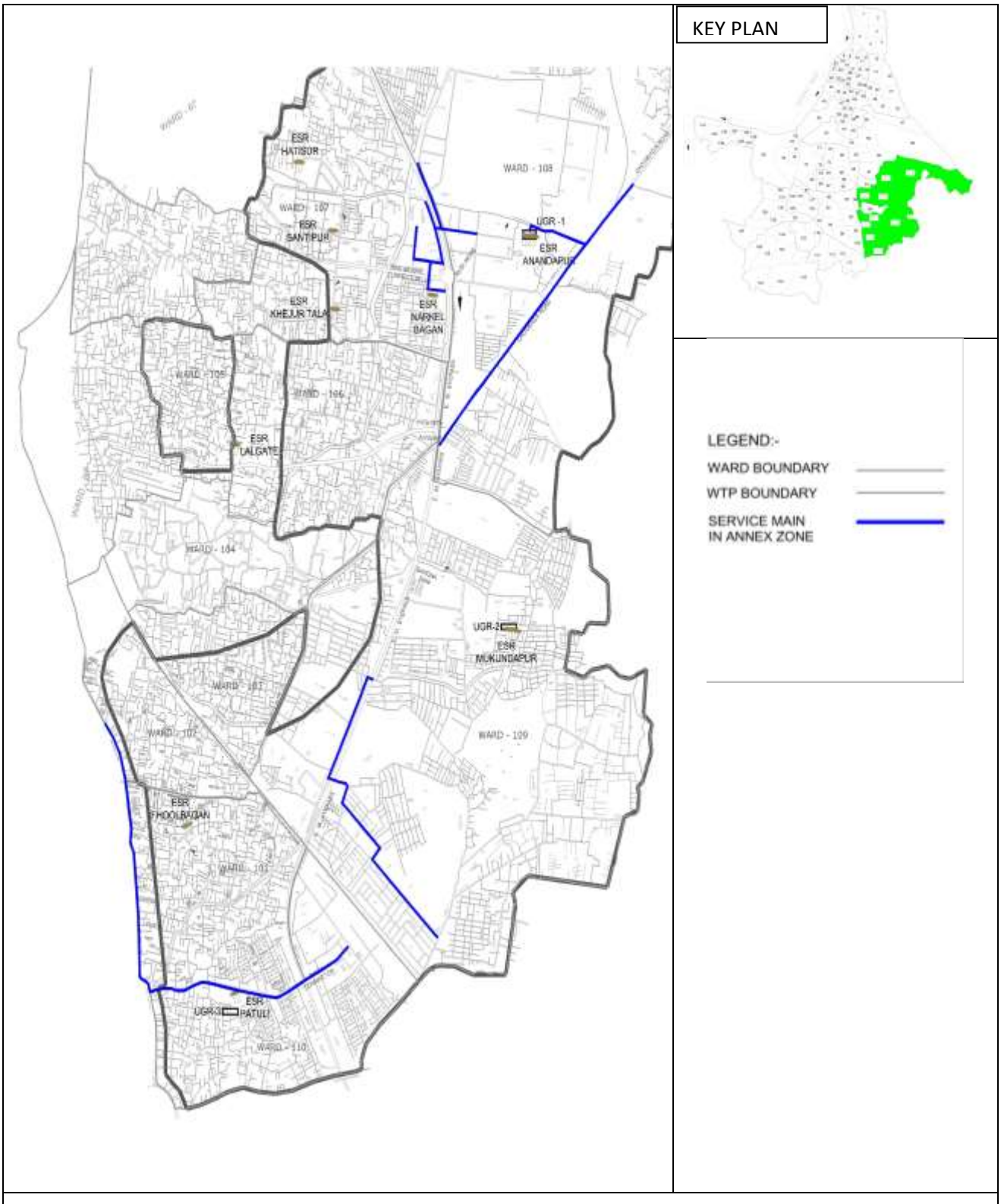


Fig A: Service Main in Annex Zone

PHOTOGRAPHS of WS – 33 PROJECT AREA

Figure 1: Anandapur Road

Figure 2: VanijyaTathyaSadan, Anandapur Road

Figure 3: Service Road, near Ruby General Hospital

Figure 4: Service Road, near Income Tax Quarters

Figure 5: Adjacent to State Bus Garage

Figure 6: E.M. Bypass

Figure7: Hossainpur Road

Figure 8: Near WellandGouldsmith School

Figure 9: Patuli- E.M. Bypass Connector

Figure 10: Raja S.C. Mallick Road

Figure 11: Raja S.C. Mallick Road

Figure 12: Near SukantaSetu

Photographs of Community Consultation at Patuli

Appendix – 1 Signature of Participants of Community Consultation

Participants List

Name of place (Ward No) Patuli

Date 21.03.17

Sl.No	Name of Participants	Contact No, if any	Signature
1	Prosenjit Mondal	9836464346	P. Mondal
2	Biplab Kr. Halder	9804910883	B. Halder
3	Biswajit Bhowmick	9903597729	
4	Santosh	9830447704	
5	Purna Dutta Roy	9674480587	BR
6	Barnali Sen Gupta	8013663455	B Gupta
7	RAKHI DUTTA (Bhattacharya)	9748199272	
8	Ramesanyal	9831425991	R Banyal
9	Anathendu Biswas	9635197623	Biswas
10	Mamata Rajbanshi	9038057587	M. Rajbanshi

Participants List

Name of place (Ward No) Patuli

Date 29.03.17

Sl.No	Name of Participants	Contact No, if any	Signature
11	Kakali Pramanik	9804242227	
12	Marjya murmu	8017658442	M.M.
13	Shyamali Halder	9903839494	S. Halder
14	Susmita Das.	7687097853	
15	Anjana Sahoo	7278554887	A. Sahoo.
16	Ashim Das	9038703699.	A Das.
17	Nibedita Paul	727-8884642	N. Paul
18	Rinku Nayal	9007770993	
19	ANUP GUPTA	9007715670	Anup Gupta.
20	Sambhu Das	9163467510	S Das