

# Environmental and Social Monitoring Report

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Semi-Annual Report  
January 2017

## Viet Nam: Central Regions Rural Water Supply and Sanitation Sector Project

### WATER SUPPLY AND SANITATION OF THIEU DO COMMUNE THIEU HOA DISTRICT - THANH HOA PROVINCE

Prepared by The Joint Venture of CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC for the Asian Development Bank.

## CURRENCY EQUIVALENTS

(as of 2 December 2016)

Currency unit	–	dong (VND)
VND1.00	=	\$0000440
\$1.00	=	VND22714

## ABBREVIATIONS

ADB	–	Asian Development Bank
AHs	–	affected households
APs	–	Affected Persons
CARC	–	Compensation Assistance Resettlement Committee
CSC	–	Design-Build Construction Supervision Consultant
CPC	–	Commune People's Committee
CPMU	–	Central Project Management Unit
CVWU	–	Communal Vietnam Women's Union
D&B	–	Design and Build
DARD	–	Department of Agriculture and Rural Development, Provincial
DONRE	–	Department of Natural Resources and Environment, Provincial
DPC	–	District People's Committee
EARF	–	Environmental Assessment and Review Framework
EC	–	Environmental Protection Commitment
EMP	–	Environmental Management Plan
EMoP	–	Environmental Monitoring Plan
EO	–	Environmental Officer
FS	–	Feasibility Study
GoV	–	Government of Vietnam
HHs	–	Households
IEE	–	Initial Environmental Examination
LARC	–	Land Acquisition and Resettlement Completion Report
LARP	–	Land Acquisition and Resettlement Plan
lpcd	–	Litters per capita per day
MARD	–	Ministry of Agriculture and Rural Development
MOH	–	Ministry of Health (BYT)
MONRE	–	Ministry of Natural Resources and Environment (BTNMT)
MOU	–	Memorandum of Understanding
NCERWASS	–	National Centre for Rural Water Supply and Environmental Sanitation
NGO	–	Non-governmental Organization
NOL	–	No Objection Letter
O&M	–	Operation and Maintenance
ODA	–	Official Development Assistance
OHS	–	Occupational Health and Safety
OU	–	Operational Unit
PCERWASS	–	Provincial Centre for Rural Water Supply and Environmental Sanitation
PIA	–	Project Implementation Assistance
PPC	–	Provincial People's Committee
PPMU	–	Provincial Project Management Unit
PVWU	–	Provincial Vietnam Women's Union
REA	–	Rapid Environmental Assessment

SAR	– Subproject Appraisal Report
SIEE	– Summary Initial Environmental Examination
SSO	– Subproject Site Office
VND	– Vietnam Dong
VWU	– Vietnam Women's Union
WSCC	– Water and Sanitation Commune Committee
WTP	– Water Treatment Plant

#### **NOTE**

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**MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**  
**NATIONAL CENTRE FOR RURAL WATER SUPPLY AND**  
**ENVIRONMENTAL SANITATION**

**CENTRAL REGION RURAL WATER SUPPLY AND**  
**SANITATION SECTOR PROJECT**

{ADB Loan No. 2609-VIE (SF)}

**Safeguards Monitoring Report**  
**July - December 2016**

**WATER SUPPLY AND SANITATION OF**  
**THIEU DO COMMUNE**  
**THIEU HOA DISTRICT - THANH HOA PROVINCE**

**Consulting Services**  
**For**  
**Project Implementation Assistance**

The Joint Venture of  
CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC

December 2016

# **CENTRAL REGION RURAL WATER SUPPLY AND SANITATION SECTOR PROJECT**

{ADB Loan No. 2609-VIE (SF)}

## **Safeguards Monitoring Report July - December 2016**

**WATER SUPPLY AND SANITATION OF  
THIEU DO COMMUNE  
THIEU HOA DISTRICT - THANH HOA PROVINCE**

PIA Consultant

CPMU

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This report has been prepared based on a combination of information provided by others and by the PIA Consultant. The PIA Consultant has to the extent reasonably possible validated and verified the accuracy of the information in the reports and appendices. To the best of the PIA Consultant's believe and knowledge, the included information is reasonably accurate and correct.

The Joint Venture of  
CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC

December 2016

## Internal Quality Control

<b>Project</b>	<b>Central Region Rural Water Supply and Sanitation Sector Project</b>
<b>Project No.</b>	ADB Loan No. 2609-VIE (SF)
<b>Client</b>	National Centre For Rural Water Supply And Environmental Sanitation
<b>Classification</b>	Safeguards Monitoring Report
<b>Name of report</b>	Safeguards Monitoring Report – July - December 2016 for Water Supply and Sanitation of Thieu Do commune, Thieu Hoa district, Thanh Hoa province
<b>File name</b>	VIE 2609 Thieu Hoa-TH Safeguards Monitoring Report - Jul-Dec 2016 EN
<b>Persons in charge</b>	
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<i>Soft copy</i>	VIE 2609 Thieu Hoa-TH Safeguards Monitoring Report – Jul - Dec 2016 EN.pdf

**Figure 1**      **Location map of six Project Provinces of the central coastal region of Vietnam**

## Preface

The Government of Vietnam and the Asian Development Bank have agreed to implement the Central Region Rural Water Supply and Sanitation Sector Project (Project) scheduled to be completion by 31 December 2016. The Project has a total budget of US\$ 50 million and is expected to provide access to clean water and hygienic sanitation for about 200,000 rural people in 33 communes in the six coastal central region provinces of Vietnam: Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Nam and Binh Dinh.

The Loan Agreement was signed on 2<sup>nd</sup> February 2010. On 26<sup>th</sup> July 2011, the National Centre for Rural Water Supply and Environmental Sanitation (NCERWASS) of the Ministry of Agriculture and Rural Development (MARD) signed a Contract for Consulting Services for Project Implementation Assistance with CDM International Inc. in a joint venture with Nippon Koei Co. Ltd and national consultant Vinaconsult JSC (PIA Consultant). The PIA Consultant mobilized its team members on 25<sup>th</sup> August 2011.

This Safeguards Monitoring Report – July ÷ December 2016 covers main findings of the monitoring of safeguards issues of construction and commissioning activities carried out during the reporting period from July to the end of December 2016. This report is prepared based on review of Subproject information/documentation of the Provincial Project Management Unit (PPMU), desk review of D&B Contractors' detailed design, and office working with PPMU and D&B Contractor made by PIA Consultant during a supervision mission fielded on 19 – 22 September 2016 to the Subproject area.



## List of Abbreviations

ADB	Asian Development Bank
AHs	Affected Households
APs	Affected Persons
CARC	Compensation Assistance Resettlement Committee
CSC	Design-Build Supervision Consultant
CPC	Commune People's Committee
CPMU	Central Project Management Unit
CVWU	Communal Vietnam Women's Union
D&B	Design and Build
DARD	Department of Agriculture and Rural Development, Provincial
DONRE	Department of Natural Resources and Environment, Provincial
DPC	District People's Committee
EARF	Environmental Assessment and Review Framework
EC	Environmental Protection Commitment
EMP	Environmental Management Plan
EMoP	Environmental Monitoring Plan
EO	Environmental Officer
FS	Feasibility Study
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LARC	Land Acquisition and Resettlement Completion Report
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lpcd	Litters per capita per day
MARD	Ministry of Agriculture and Rural Development
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MONRE	Ministry of Natural Resources and Environment (BTNMT)
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NCERWASS	National Centre for Rural Water Supply and Environmental Sanitation
NGO	Non-governmental Organization
NOL	No Objection Letter
O&M	Operation and Maintenance
ODA	Official Development Assistance
OHS	Occupational Health and Safety
OU	Operating Unit
PCERWASS	Provincial Centre for Rural Water Supply and Environmental Sanitation
PIA	Project Implementation Assistance
PIB	Project Information Booklet
PPC	Provincial People's Committee
PPE	Personal Protective Equipment
PPMU	Provincial Project Management Unit

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Project	Central Region Rural Water Supply and Sanitation Sector Project
PVWU	Provincial Vietnam Women's Union
REA	Rapid Environmental Assessment
SAR	Subproject Appraisal Report
SIEE	Summary Initial Environmental Examination
SSO	Subproject Site Office
Subproject	Thieu Hoa-Thanh Hoa 2 <sup>nd</sup> Batch Subproject
VND	Vietnam Dong
VWU	Vietnam Women's Union
WSCC	Water and Sanitation Commune Committee
WTP	Water Treatment Plant

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## 1 INTRODUCTION AND PROJECT OVERVIEW

### 1.1 Introduction

The water supply and sanitation Batch-2 Subproject located in Thieu Do Commune, Thieu Hoa District, Thanh Hoa Province (Subproject) is one of the eight Batch-2 Subprojects of the Central Regions Rural Water Supply and Sanitation Sector Project (Project) to be implemented under the Loan Agreement No. 2609 - VIE (SF) between the Socialist Republic of Vietnam (GoV) and the Asian Development Bank (ADB).

The implementation of the Project will result in better health and living conditions of people living in rural areas in the Project provinces of Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Nam and Binh Dinh. The Project will construct a piped water supply systems, and sanitation facilities and to promote safer hygiene practices by the commune's residents. The Project's components are the following: (i) Operational and sustainable piped water supply system; (ii) Improved household and public sanitation; (iii) Improvement of hygiene awareness; (iv) Strengthened sector planning and implementation capacity; and (v) Improved project management capacity.

In accordance with the Memorandum of Understanding (MOU) agreed between the ADB and the CPMU, the Thieu Hoa- Thanh Hoa Batch-2 Subproject needs to adhere to preparation of semi-annual safeguards monitoring reports. This semi-annual report covers issues in the second half of 2016.

The Subproject is designed to improve rural water supply and sanitation facilities and to promote safer hygiene practices by the rural communes. Water supply includes construction of piped water supply network with treatment facilities.

The Subproject will also include grey water (sullage) disposal and small scale drainage improvements to properly discharge spill and grey water flows that will result from the water supply improvement works.

The Design-Build packages for Water Supply System and Sanitation of the Subproject was signed on December 29, 2014 and commenced on January 8, 2015. The water supply system has been constructed since September 6, 2015.

Construction of drainage system and sanitation package were started on October 5, 2015 and completed as scheduled on January 3, 2016.

### 1.2 Subproject Overview

**Table 1 Thieu Hoa-Thanh Hoa Batch-2 Subproject Safeguards Overview**

<b>Project Number and Title:</b>	<b>ADB Loan No. 2609-VIE (SF) Central Region Rural Water Supply and Sanitation Sector Project Subproject: Construction of Water Supply and Sanitation for Thieu Do Commune, Thieu Hoa District, Thanh Hoa Province</b>	
<b>Safeguards Category</b>	Environment	B
	Involuntary Resettlement	B
	Indigenous People	C
<b>Reporting period:</b>	July 2016 - December 2016	
<b>Last report date:</b>	October 2016	

<b>Project Number and Title:</b>	<b>ADB Loan No. 2609-VIE (SF)</b> <b>Central Region Rural Water Supply and Sanitation Sector Project</b> <b>Subproject: Construction of Water Supply and Sanitation for Thieu Do Commune, Thieu Hoa District, Thanh Hoa Province</b>
<b>Key sub-project activities since last report:</b>	<p><b>1. Construction Component</b></p> <p>The Subproject of Thieu Do Commune, Thieu Hoa District, Thanh Hoa District includes two construction packages:</p> <ul style="list-style-type: none"> <li>(i) Design-Build package of water supply system: TH2/DB2/NCB and</li> <li>(ii) Design-Build package of drainage system and sanitation: TH2/DB4/NCB.</li> </ul> <p><b>2. Progress of Work</b></p> <p><b>Main items of water supply component:</b></p> <p>By the end of this reporting period, the construction basically completed as follows:</p> <ul style="list-style-type: none"> <li>(i) Household connection: completed;</li> <li>(ii) Pipeline: completed.</li> </ul> <p><b>Main items of sanitation component:</b></p> <ul style="list-style-type: none"> <li>(i) Drainage ditch: completed</li> <li>(ii) Household's latrine substructure: 21 latrine substructures were completed (17 poor households and 04 near poor FHH with sole income provided by a woman) and the remaining 7 households no longer wish to have latrine substructures, so the progress for this work item is 100%</li> </ul> <p>→ Work volume: 100% completed.</p> <p><b>Changes of Surrounding Environment:</b></p> <p>The construction of the Subproject has completed. No major negative impacts.</p>
<b>Report prepared by:</b>	PIA consultant

**Table 2 Basic data of Subproject.**

No	Contents	Data
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No	Contents	Data
<b>1</b>	<b>Water Supply System</b>	
	• Designed Population	9,268 people
	• Capacity	1,300 m <sup>3</sup> /day
	• Water Source	Surface Water (from Irrigation Canal No.1)
	• Length of Distribution Network	35.6 km
	• Number of Service Connections	1,831 sets
<b>2</b>	<b>Sanitation</b>	
	• Household' Latrine Substructures	21 units
	• Sewage disposal canal (open ditch)	793 m

## 2 ENVIRONMENTAL PERFORMANCE MONITORING

### 2.1 EMP/EMoP Implementation and Compliance

#### EMP/EMoP Implementation by D&B Contractor

During the construction phase, the implementation of the EMP is the responsibility of the D&B Contractor. The D&B Contractor's responsibility includes the appropriate and timely application of the mitigating measures stipulated in the approved EMP and EMoP. The application and implementation of the mitigation measures are to provide the safeguards that will control, reduce if not eliminate unwanted effects during the Subproject implementation.

Regarding raw water quality, during the pre-construction phase, the D&B Contractor conducted raw water quality analysis as part of the Detailed Design phase. The results verified that no changes or adjustment to the water treatment process are required. The slightly elevated content of ammonium can be removed through the treatment process. Another analysis was carried out at the end of construction when the WTP is ready for operation, on 19 November 2016. The results show that no changes or adjustment to the water treatment process are required.

#### EMP/EMoP Implementation by Operating Unit

During the O&M phase, the Operating Unit (OU) will be responsible for adherence to mitigation measures and activities stipulated in the EMP and EMoP plans. They will be primarily focused on safe operation of the WTP and distribution of treated water including: (i) regular testing of raw water quality and treated water quality; (ii) regular monitoring of the quality of wastewater and sludge; and (iii) applying the health and safety regulations specified in the EMP. The operators will also need to carry out O&M procedures in accordance with the O&M manual.

### 2.2 Environmental Monitoring by CSC/PPMU

During Subproject preparation phase, the PPMU/ EO is responsible for ensuring that all EMP and EMoP requirements were included in the bidding documents and the contracts are followed by the contractors. The templates for D&B construction package and CSC package in the bidding

documents and the contract documents prepared by PIA Consultant have already included EMP and EMoP compliance requirements and should be used for all of the Subprojects.

During construction phase, the inspection, evaluation and recording of compliance to the EMP and EMoP as implemented by the contractors is among the tasks undertaken by the Construction Supervision Consultant (CSC) in the field with the assistance of the PIA Consultant. The CSC carries out weekly and monthly inspections and maintain records of the D&B Contractor's mitigating measures and activities prescribed in the approved EMP and EMoP of the Subproject. The responsibilities of CSC cover the period to the end of the commissioning stage including certifying of construction materials, equipment and items and final checking and acceptance for handing over for operation.

The inspection and evaluation records have been consolidated by the CSC in their Quarterly Environmental Monitoring Report. The CSC's collation and synthesis of the D&B Contractors' compliance to the requirements of the EMP and EMoP have been summarized in matrix attached with the report to be submitted to CPMU and PIA Consultant within 15 days after the end of each quarter.

During O&M phase, PPMU's Environmental Officer (EO) will be responsible for monitoring the OU compliance to the EMP and EMoP, as well as consolidating all the records of the plant operator on laboratory analysis and health and safety issues, and quarterly reporting to the CPMU and PIA Consultant within 15 days after the end of each quarter.

### **2.3 Monitoring Activities Carried Out by PIA Consultant**

In the second half of 2016, the PIA Consultant has provided support to CPMU and PPMUs in terms of environmental documentation preparation, field visits for supervision and assistance, and information verification to ensure all the environment related provisions/requirements are followed.

In preparation for environmental assessment of batch-2 subprojects, PIA Consultant has prepared IEE reports based on (i) the environmental documents prepared by FS consultants and PPMUs and (ii) field visits carried out by PIA Consultant's Environmental Specialists to investigate and validate baseline environmental conditions of the proposed Batch-2 subprojects. The IEE reports of 08 batch-2 Subprojects have been issued Conditional Approval from the ADB. The EMPs approved by ADB have been also incorporated in the FS reports approved by the PPCs and in the Environmental Protection Commitments registered and accepted by the Subprojects' DPCs.

The templates of the bidding and contract documents with incorporated-EMP/EMoP plans were prepared by the PIA Consultant specialists and delivered to the PPMU. Subsequent monitoring of the PIA Consultant during bidding and contract process indicated that the EMP and EMoP plans and budget requirements have been included in the Subproject's bidding and bid documents and budgets, as well as in the Subproject's contract documents.

During the construction, the PIA Consultant has provided support and advices to the CSC and D&B Contractors in implementation of EMP/EMoP and assisted CPMU in compiling monitoring reports for submission to ADB.

During the second half of 2016, the PIA Consultant conducted one field trip to the Subproject on 19 – 22 September 2016. The on-site visit was made to check the progress and quality of the construction works and compliance with contract documents including safeguards issues. A meeting with PPMU, CSC and D-B Contractor staff was held afterward to give them recommendation/advices to the Subproject implementation and to have discussion or find resolution to the rising issues. Specific site visits to monitor the environmental compliance of the Subproject focused on the following:

- (i) Review completion of construction works;
- (ii) Inspect construction quality of the works; and
- (iii) Conduct assessment of operational and functionality of the water supply system.



The collation of the PPMU's quarterly monitoring reports and PIA Consultant's review on the assessment of the safeguard compliance to the requirements of the EMP and EMoP is summarized in environmental performance matrix of the Subproject attached with this report as an *Annex 1*.

## 2.4 Key Issues for Further Actions.

**Table 3 Environmental Issues for Further Action.**

Issue	Required Action	Responsibility and Timing	Resolution
<b>Old Issues from Previous Reports:</b> none			
<b>New Issues from This Report</b>			
Total coliform and E.coli were not tested in the raw water quality analysis conducted in November 2016.	The PPMU/OU to request the testing unit to test these parameters in the next sample testing.	The PPMU/OU	

## 3 INVOLUNTARY RESETTLEMENT PERFORMANCE MONITORING

### 3.1 Compliance with RP Requirements

The draft LARP of Thieu Hoa Subproject, Thanh Hoa Province has been prepared and submitted to ADB as Volume 5 of Subproject Appraisal Report and has been approved on December 2014.

During preparation the draft LARP, a public consultation meeting was held by PPMU on 05 June 2014 with affected households and concerned stakeholders.

The detailed engineering design was approved on 10 June 2015, PPMU has conducted two public consultation meetings on 12 and 18 June 2015 with affected households. Concurrently, detailed measurement survey (DMS) and socio-economic survey (SES) was carried out also from 10 to 18 June 2015.

The compensation payment was made to AHs on September 7, 2015

**Table 4 Summary of Compliance with RP Requirements**

RP Requirements	Compliance status Yes/No/Partial	Comment or Reasons for Compliance, Partial Compliance/Non-Compliance	Issues for Further Action <sup>1</sup>
Establishment of personnel in PMU/PIU	Yes	Compensation Assistance Resettlement Committee for Thieu Hoa Sub-project has been established based on Decision No.2698a /QD-UBND dated 01 October 2014	
Public consultation and socialization process	Yes	During preparation the draft LARP, a public consultation meeting was held by PPMU on 05 June 2014 with affected households and	

<sup>1</sup> To be elaborated further in Table 5 (Issues for Further Action)

RP Requirements	Compliance status Yes/No/Partial	Comment or Reasons for Compliance, Partial Compliance/Non-Compliance	Issues for Further Action <sup>1</sup>
		concerned stakeholders.  The detailed engineering design was approved on 10 June 2015, PPMU has conducted two public consultation meetings on 12 and 18 June 2015 with affected households. Concurrently, detailed measurement survey (DMS) and socio-economic survey (SES) were carried out also from 10 to 18 June 2015.	
Land area to be acquired is identified and finalized		+ Permanently acquired land area: 16,957.9 m2 of 56 AHs with 266 APs + Temporarily acquired land area : 19,400 m2 of public land managed by CPC of Thieu Do	
Land acquisition completed	Yes		
Establishment of Resettlement Site(s)	Not applicable	No relocation is required	
Compensation payments for affected assets is completed	Yes	The paid compensation amount for assets of 56 households was <b>699,903,000 VND</b> . Out of which + For land: 678,316,000 VND + For crops: 21,587,000 VND The paid allowances and assistances (including assistance for acquired land area, transition subsistence allowance for severely AHs and support for life and production stabilization) : <b>1,827.474,000 VND</b>	
Transport assistance for relocating affected households	Not triggered	No relocation is required	
Additional assistance to vulnerable affected household	Yes	Total paid additional assistance was 6,000,000 VND. There was 3 poor households, each households received 1,200,000 VND. Two out of 3 households are female headed households with dependent, each households received extra 1,200,000 VND.	
Income Restoration	Yes	The Vocational Training course was offered as IRP to 42 APs who less than 30 years old with	

RP Requirements	Compliance status Yes/No/Partial	Comment or Reasons for Compliance, Partial Compliance/Non-Compliance	Issues for Further Action <sup>1</sup>
Program		total budget 126,000,000 VND. However, all of APs want to seek by themselves the suitable vocational training course with their capable, therefore PPMU paid to them by cash with 3,000,000 VND/each	
Temporary impacts have been addressed (affected properties restored to at least pre-project conditions)	Yes	The pipeline was installed in rest time between 2 crops to minimize the effect on crops of households	
Capacity building activities	Yes	Member of PPMU and District CARC of Thieu Hoa attended to the Training course on “ADB's social safeguard policies on environment and resettlement” from 2 April to 4 April, 2014 in Quang Nam province.	
Completion of land acquisition and resettlement	Partial	Land Acquisition and Resettlement Completion (LARC) Report is under preparation	

### 3.2 Resettlement Monitoring by PPMU

The water supply system has been constructed since September 6, 2015 PPMU has cooperated with Constructor Supervision Consultant (CSC) to supervise the land acquisition boundary during construction to ensure that adjacent land area has not been affected.

### 3.3 Monitoring Activities carried out by PIA Consultant

The PIA Consultant conducted one field trip to the Subproject on September 19<sup>th</sup> – 22<sup>nd</sup>, 2016. The on-site visits were made to check whether the land boundary encroaches to adjacent land and whether any claims have been raised by people in the subproject area

### 3.4 Key Issues for Further Action

**Table 5 LARP Issues for Further Action**

Issue	Required Action	Responsibility and Timing	Resolution
<b>Old Issues from Previous Reports</b>			
None			
<b>New Issues from This Report</b>			
Land acquisition and Resettlement Completion Report	LARC report is under preparation	PPMU, CPMU, PIA Consultant and ADB	

## 4 OCCUPATIONAL HEALTH AND SAFETY (OHS) PERFORMANCE MONITORING

The Occupational, Health and Safety (OHS) Performance has been monitored for the public and the workers.

### 4.1 OHS for Workers

Before construction, the construction site was surveyed and cleared of bombs and unexploded ordnance by SAPPER Division – 4<sup>th</sup> Military Region.

The following issue related to OHS for workers has been identified:

**Table 6 OHS Issues for further Action**

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports: none			
New Issues from This Report: none			

### 4.2 Public Safety

No public safety issues have been identified or reported during this reporting period.

## 5 INFORMATION DISCLOSURE AND SOCIALIZATION INCLUDING CAPABILITY BUILDING

### 5.1 Public Consultations and Information Disclosure

#### 5.1.1 Environmental Public Consultation and Information Disclosure

There are two public consultation meetings on environmental issues to be implemented for each of the Subproject. The 1<sup>st</sup> public consultation was held during FS preparation. The 2<sup>nd</sup> public consultation was held for Thieu Do commune on July 22, 2015 before construction commencement in order to inform the local people of at least: (i) commencement time of construction, (ii) duration of construction, (iii) EMP and EMoP requirements and responsibilities, (iv) introduction of Subproject site office, contact details and telephone numbers of contractors, CSCs and PPMU staff. The approved IEE report and SIEE report were disclosed on the information boards of the related CPCs (*see annex 3*) and the soft copies of the full IEE reports are stored in computers by CPC staff and shall be disclosed to any third party if requested.

Updates of the Subproject information will also be disseminated to all the beneficiaries through the loudspeaker system of the Subproject communes as well as over activities of the Water and Sanitation Commune Committee (WSCC) members and the Health and Sanitation Promoters (HSPs).

#### 5.1.2 Resettlement Public Consultation and Information Disclosure

During preparation the draft LARP, a public consultation meeting was held by PPMU on 05 June 2014 with affected households and concerned stakeholders.

As part of the updating the LARP two public consultation meetings were held on 12 and 18 June 2015. In the meetings affected household were informed about the project's resettlement framework and the unit prices for compensations. The cut-off date was disclosed to affected households on 18 June 2015.

## **5.2 Training - Capacity Building**

### **5.2.1 Environment**

To improve environmental monitoring capacity of commune environmental officers, WSCCs and HSPs for Batch 2 subprojects, PIA consultant organized training courses on environmental monitoring during project implementation for WSCCs and HSPs in Thanh Hoa city, Thanh Hoa province on 26<sup>th</sup> & 27<sup>th</sup> June 2015. This capacity building activity equipped 34 participants of Yen Dinh-Thanh Hoa and Thieu Do- Thanh Hoa Subprojects with solid knowledge about ADB's and GoV's environmental policies and environmental monitoring.

The PPMU staff and CSCs of Thanh Hoa, Nghe An, Quang Nam and Binh Dinh Batch-2 Subprojects attended 2<sup>nd</sup> training course on "Contract management and Construction quality supervision" organized by PIA Consultant on September 30 and October 1, 2015. There were 22 participants in the course (2 female) – including 3 participants of this Subproject. The training course aimed to improve the trainees' capacity on management of contracts and construction quality, environmental management and monitoring, and preparation of progress reports etc. and also to enable the participants to transfer skills and knowledge to other offices/personnel after the course.

Apart from the above organized training courses, PIA Consultant has delivered on-the-job training via phones, emails and meetings when necessary as well as clarified any queries from CPMU and PPMUs.

### **5.2.2 Resettlement**

The resettlement has been completed, no training is required.

## **5.3 Press/Media Releases**

In order to extent the publicity for the Project information, information of implementation status and lessons learnt from the ADB funded CRRWSSSP Project has been published and updated on the website of the National Centre for Rural Water Supply and Environmental Sanitation (NCERWASS) (<http://ncerwass.mard.gov.vn/>) since January 2014. These publications aim to share experiences of the Project activities and the Project's progress among the network of Rural Water Supply and Sanitation Project (RWSSP), partners and interested stakeholders.

## **6 GRIEVANCE REDRESS MECHANISM**

A Subproject site office has been established, and the Subproject's information including grievance redress mechanisms on environment and resettlement have been disclosed to the public on the notice boards of the CPCs of the Subproject.

### **Environment**

No written grievance has been received and no oral complaints have been reported.

### **Resettlement**

No written grievance has been received and no oral complaints have been raised.

## **7 CONCLUSIONS AND RECOMMENDATIONS**

### **Environment**

The results of the implementation of the EMP/EMoP have indicated that most of the requirements of the EMP and EMoP have been followed by the contractors and the PPMU.

One issue arising during this reporting period is that total coliform and E.coli were not tested in the raw water quality analysis conducted in November 2016. The PPMU/OU is recommended to request the testing unit to test these parameters in the next sample testing.

The overall implementation/compliance of the Thanh Hoa Batch-2 Subproject to the EMP/EMoP is rated as partially satisfactory in this reporting period. In the forthcoming time, the PPMU shall enforce that the OU will operate the Subproject facilities in compliance with the approved EMP/EMoP provisions, and to timely conduct raw water and treated water sampling and quality analyses.

### **Resettlement**

Implementation of the resettlement activities of Thieu Hoa sub-project is appraised as satisfactory and within project's resettlement framework.

## **Annex 1      Subproject Compliance with EMP and EMoP Requirements**

(i) Summary of Subproject compliance with EMP requirements

EMP Requirements (Mitigation Measures)	Compliance Status (Yes, No, Partial)	Comment or Reasons for Non-Compliance	Issues for Further Action
(1)	(2)	(3)	(4)
<b>OPERATION &amp; MAINTENANCE PHASE</b>			
<b>Environmental and Occupational Health and Safety</b>			
<ul style="list-style-type: none"> <li>Equipped workers with gas masks and protective clothing and gears such as boots, helmets during working.</li> </ul>	Yes	Operational unit has provided sufficiently work wear for workers such as: work safety gears, helmets, boots, gloves, protection mask, etc.	
<ul style="list-style-type: none"> <li>WTP operator will strictly comply with instructions of use and storage of chemicals. If leakage or spillage events happen, the WTP operator will inform to relevant agency to deal with immediately.</li> </ul>	Yes	<p>Along with ensuring safety, the construction unit has instructed and trained the workers how to operate safety devices and fire protection equipment.</p> <p>Safety equipment in regard of chemical using and fire protection is sufficiently supplied as: ventilation fan for chemical mixing room, chemical shelf, fire extinguisher, back-up water for fire extinguishing, signs, instructions, etc.</p> <p>Along the pipelines, fire hydrants have been installed and are always ready for using at any time.</p>	



(ii) Summary of Subproject compliance with EMoP requirements

EMoP Requirements (Mitigation Measures)	Compliance Status (Yes, No, Partial)	Comment or Reasons for Non-Compliance	Issues for Further Action
(1)	(2)	(3)	(4)
<b>OPERATION &amp; MAINTENANCE PHASE</b>			
<ul style="list-style-type: none"> <li><b>Raw (surface) water quality</b> Conduct raw water sample (taken from raw water reservoir) and analysis quarterly.</li> </ul>	Partial.	Raw water quality analysis was conducted in this reporting period. However, total coliform and E.coli were not tested in the raw water quality analysis.	The PPMU/OU is recommended to request the testing unit to test these parameters in the next sample testing.
<ul style="list-style-type: none"> <li><b>Treated water quality</b> Conduct treated water sample (taken from treated water basin) and analysis quarterly.</li> </ul>	Yes.	Treated water quality analysis was conducted in this reporting period and its quality meets the standards.	

## **Annex 2    Monitoring Data: Raw water, treated water and backwash water quality analysis**

**Original:**

**Thanh Hoa Batch 2 Subproject: Raw water quality analysis result**

<p>CHI CỤC TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG THANH HÓA</p> <p>Thanh Hoa Branch of Standardisation - Metrology and Quality</p> <p>TRUNG TÂM DỊCH VỤ KỸ THUẬT TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG</p> <p>Thanh Hoa Technical service Centre for Standards and Quality</p> <p>Địa chỉ: 15 đường Hạc Thành Thành phố Thanh Hoá Add: 15 Hạc Thanh Road Thanh Hoa City</p> <p>Tel: (037) 3712264 - 3720704 Fax: (037) 3712264 E-mail: tcdlcl.th@hn.vnn.vn</p>					
<p><b>PHIẾU KẾT QUẢ THỬ NGHIỆM</b></p> <p><b>THE TEST RESULTS</b></p> <p>Số (N<sup>o</sup>): 1675 - TNH(S)/2016</p>					
<p>Tên mẫu thử: <b>NƯỚC MẶT KÊNH B9</b></p> <p>(Object)</p>					
<p>Ký hiệu: <b>MG</b></p> <p>(Notation)</p>		<p>Số lượng: <b>01 mẫu.</b></p> <p>(Number of)</p>			
<p>Khách hàng: <b>Trung tâm nước sinh hoạt và VSMT nông thôn Thanh Hóa</b></p> <p>(Customer name)</p>					
<p>Dự án: <b>Công trình cấp nước xã Thiệu Đô, huyện Thiệu Hóa, tỉnh Thanh Hóa</b></p> <p>(Project)</p>					
<p>Ngày nhận mẫu: <b>19/11/2016</b></p> <p>(date of receipt)</p>					
TT Order (1)	Tên chỉ tiêu Items (2)	Phương pháp thử Test method (3)	Đơn vị tính Unit (4)	QCVN 08:2015/BTNMT	Kết quả thử Results (5)
					<b>M1</b>
1	pH	TCVN 6492:2011	-	6-8,5	7,08
2	Hàm lượng COD	TCVN 6491:1999	mgO <sub>2</sub> /l	15	10,6
3	Hàm lượng BOD <sub>5</sub>	TCVN 6001-1:2008	mgO <sub>2</sub> /l	6	4,1
4	Tổng chất rắn lơ lửng	TCVN 6625:2000	mg/l	30	20,5
5	Hàm lượng N/NH <sub>4</sub> <sup>+</sup>	TCVN 5988:1995	mg/l	0,3	0,2
6	Hàm lượng N/NO <sub>2</sub> <sup>-</sup>	TCVN 6178:1996	mg/l	0,05	0,032
7	Hàm lượng N/NO <sub>3</sub> <sup>-</sup>	TCVN 6180:1996	mg/l	5	1,21
8	Hàm lượng Cl <sup>-</sup>	TCVN 6194:1996	mg/l	350	125,3
9	Hàm lượng F <sup>-</sup>	Palintes	mg/l	1,5	0,6
10	Hàm lượng Fe	TCVN 6177:1996	mg/l	1	0,82
11	Hàm lượng DO	TCVN 7324:2004	mg/l	≥5	5,2
12	Hàm lượng As	TCVN 6626:2000	mg/l	0,02	KPHĐ
<p>Ghi chú: KPHĐ: Không phát hiện được</p>					
<p>Thanh Hóa, ngày 25 tháng 11 năm 2016</p>					
<p><b>THỬ NGHIỆM VIÊN</b></p> <p>Tester</p> <p><i>[Signature]</i></p> <p><b>Nguyễn Thị Hào</b></p>		<p><b>TỔ TRƯỞNG</b></p> <p>Team Leader</p> <p><i>[Signature]</i></p> <p><b>Lê Thị Lan Anh</b></p>			
<p>Chú ý: - Phiếu kết quả thử nghiệm không có giá trị khi sao chép từng phần nếu không được sự đồng ý của Vilas 142.</p> <p>- Kết quả chỉ có giá trị đối với mẫu thử.</p> <p>- Những chỉ tiêu có dấu (*) trong phạm vi công nhận Vilas.</p> <p>- Những chỉ tiêu có dấu (a) trong phạm vi công nhận Vincerts 170</p> <p>- Các chỉ tiêu đánh dấu (b) được thực hiện bởi nhà thầu phụ</p> <p>- Tên mẫu, tên khách hàng và tên cơ sở đo khách hàng cung cấp.</p>					
				<p><b>GIÁM ĐỐC</b></p> <p>Director</p> <p><i>[Signature]</i></p> <p><b>Nguyễn Mạnh Hợp</b></p> <p>BM - 10 - 07 - 02</p> <p>Trang 1/1</p> <p>(N<sup>o</sup> of pages)</p>	

**Translation:**

**Thanh Hoa Batch 2 Subproject: Raw water quality analysis result**

No.	Parameter	Unit	Result (19 <sup>th</sup> November 2016)	Limiting value set in QCVN 08-MT:2015/ BTNMT (Volume A2)
1	pH	-	7.08	6-8.5
2	COD	mgO <sub>2</sub> /l	10.6	15
3	BOD <sub>5</sub>	mgO <sub>2</sub> /l	4.1	6
4	Total suspended solid	mg/l	20.5	30
5	N/NH <sub>4</sub> <sup>+</sup>	mg/l	0.2	0.3
6	N/NO <sub>2</sub> <sup>-</sup>	mg/l	0.032	0.05
7	N/NO <sub>3</sub> <sup>-</sup>	mg/l	1.21	5
8	Chloride	mg/l	125.3	350
9	Fluoride	mg/l	0.6	1.5
10	Fe	mg/l	0.82	1
11	DO	mg/l	5.2	≥5
12	Arsenic	mg/l	BDL	0.02

**Note:**

- **QCVN 08-MT:2015/BTNMT**: National technical regulation on surface water quality
- **BDL**: Below Detected Level.



**Original:**

**Thanh Hoa Batch-2 Subproject: Treated water quality analysis result**

**CHI CỤC TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG THANH HÓA**  
Thanh Hoa Branch of Standardisation - Metrology and Quality  
**TRUNG TÂM DỊCH VỤ KỸ THUẬT TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG**  
Thanh Hoa Technical service Centre for Standards and Quality  
Địa chỉ: 15 đường Hạc Thành phố Thanh Hoá Add: 15 Hạc Thanh Road Thanh Hoa City  
Tel: (037) 3712264 - 3720704 Fax: (037) 3712264 E-mail: tedcl.th@hn.vnn.vn

**PHIẾU KẾT QUẢ THỬ NGHIỆM**  
**THE TEST RESULTS**  
Số (N°): 1230 - TNH(S)/2016

Tên mẫu thử: **NƯỚC SẠCH**  
(Object)  
Ký hiệu: **MMT** Số lượng: 01 mẫu.  
(Notation) (Number of)  
Khách hàng: **Công ty CP Đầu tư và Xây dựng Trường An- VIWASEEN**  
(Customer name)  
Công trình: **Gói thầu TH2/DB2/NB2/NCB: Thiết kế - thi công hệ thống cấp nước**  
(Works) **xã Thiệu Đô, huyện Thiệu Hóa, tỉnh Thanh Hóa**  
Ngày nhận mẫu: **07/11/2016**  
(date of receipt)

TT Order (1)	Tên chỉ tiêu Items (2)	Phương pháp thử Test method (3)	Đơn vị tính Unit (4)	QCVN 01:2009/BYT	Kết quả thử Results (5)
					N2
1	Màu sắc	TCVN 6185:2008	TCU	15	1,0
2	Mùi vị	Cảm quan	-	Không có mùi, vị lạ	Không có mùi, vị lạ
3	Độ đục	TCVN 6184:1996	NTU	2	0,0
4	pH	TCVN 6492:2011	-	6,5-8,5	7,21
5	Độ cứng (CaCO <sub>3</sub> )	TCVN 6224:1996	mg/l	300	120,0
6	Tổng chất rắn hòa tan (TDS)	TCVN 6625:2000	mg/l	1000	315,0
7	Hàm lượng N/NH <sub>4</sub> <sup>+</sup>	TCVN 5988:1995	mg/l	3	0,0
8	Hàm lượng Cl <sup>-</sup>	TCVN 6194:1996	mg/l	250	65,0
9	Hàm lượng Cr <sup>6+</sup>	TCVN 6222:1996	mg/l	0,05	0,0
10	Hàm lượng Cu	TCVN 6193:1996	mg/l	1	0,01
11	Hàm lượng CN	Palintes	mg/l	0,07	0,0
12	Hàm lượng Fe tổng	TCVN 6177:1996	mg/l	0,3	0,15
13	Hàm lượng Mn	Palintes	mg/l	0,3	0,01
14	Hàm lượng N/NO <sub>2</sub>	TCVN 6178:1996	mg/l	3	0,016
15	Hàm lượng N/NO <sub>3</sub>	TCVN 7323-1:2004	mg/l	50	0,23
16	Hàm lượng SO <sub>4</sub> <sup>2-</sup>	TCVN 6200:1996	mg/l	250	14,0



17	Chỉ số Pecmanganat	TCVN 6186:1996	mg/l	2	0,5
18	Hàm lượng As	TCVN 6626:2000	mg/l	0,01	KPHD
19	Hàm lượng Cd	TCVN 6197:1996	mg/l	0,003	KPHD
20	Hàm lượng Pb	TCVN 6193:1996	mg/l	0,01	KPHD
21	Coliform	TCVN 6187-2:1996	MPN/100ml	0	0
22	E.coli	TCVN 6187-2:1996	MPN/100ml	0	0

**Ghi chú:**  
- N2: Mẫu nước được lấy tại cọc M7.40  
- KPHD: Không phát hiện thấy.

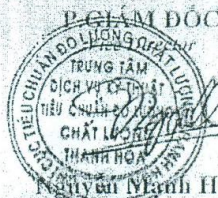
**Nhận xét:** Mẫu nước trên có các chỉ tiêu phân tích nằm trong giới hạn cho phép theo QCVN 01:2009/BYT Quy chuẩn kỹ thuật quốc gia về chất lượng nước ăn uống của Bộ Y tế.  
Kết quả phân tích trên chỉ có giá trị trên mẫu thử do khách hàng mang đến.

Thanh Hóa, ngày 14 tháng 11 năm 2016

THỬ NGHIỆM VIÊN  
Tester

V<sub>3ao</sub>12

Nguyễn Thị Hào



Nguyễn Mạnh Hợp

**Chú ý:**  
- Phiếu kết quả thử nghiệm không có giá trị khi sao chép từng phần nếu không được sự đồng ý của Vilas 142.  
- Kết quả chỉ có giá trị đối với mẫu thử.  
- Những chỉ tiêu có dấu (\*) trong phạm vi công nhận Vilas.  
- Tên mẫu, tên khách hàng và tên cơ sở đo khách hàng cung cấp.

BM - 10 - 07 - 02  
Trang  
(N<sup>o</sup> of pages)

**Translation:**

**Thanh Hoa Batch-2 Subproject: Treated water quality analysis result**

No.	Parameter	Unit	QCVN 01:2009 BYT	Treated water reservoir (7 Nov 2016)
1	Color	TCU	15	1.0
2	Odor	-	No odor	No odor
3	Turbidity	NTU	2	0
4	pH	-	6.5-8.5	7.21
5	Hardness (CaCO <sub>3</sub> )	mg/l	300	120
6	Total suspended solid (TSS)	mg/l	1000	315
7	N/NH <sub>4</sub> <sup>+</sup>	mg/l	3	0.0
8	Chloride	mg/l	250	65
9	Chrome	mg/l	0.05	0.0
10	Copper	mg/l	1	0.01
11	Cyanide	mg/l	0.07	0.0
12	Fe total	mg/l	0.3	0.15
13	Manganese	mg/l	0.3	0.01
14	N/NO <sub>2</sub> <sup>-</sup>	mg/l	3	0.016
15	N/NO <sub>3</sub> <sup>-</sup>	mg/l	50	0.23
16	SO <sub>4</sub> <sup>2-</sup>	mg/l	250	14
17		mg/l	2	0.5
18		mg/l	0.01	BDL
19		mg/l	0.003	BDL
20		mg/l	0.01	BDL
21	Total coliform	MNP/100ml	0	0
21	E.coli	MNP/100ml	0	0

**Note:**

- **QCVN 01:2009/BYT**: National technical regulation on treated water quality

- **BDL**: Below Detected Level.

## **Annex 3    Photographs**





**Figure 2** Public consultation (June 2014)



**Figure 3** SIEE disclosure at Thieu Do CPC (May 2015)



**Figure 4** Environmental training for WSCCs and HSPs in Thanh Hoa city (June 2015, picture 01)



**Figure 5** Environmental training for WSCCs and HSPs in Thanh Hoa city (June 2015, picture 02)



**Figure 6** Training course on "Contract and Construction Quality Management" (Sep. 2015)



**Figure 7** Access road to the WTP (May 2016)





**Figure 8** Administration house (May 2016)



**Figure 9** Primary pumping station (May 2016)



**Figure 10** Secondary pumping station (May 2016)



**Figure 11** Sludge settling pond (May 2016)



**Figure 12** Drainage ditch (May 2016)



**Figure 13** Septic tank latrine substructure (May 2016)



**Figure 14** AHs are waiting for their turn



**Figure 15** PPMU check the Compensation miss to fill in



**Figure 16** AH checked compensation amount



**Figure 17** Mr. Quan – officer of PPMU cum member of CARC call the name of AHs

## **Annex 4     IEE Addendum and Endorsement Letter**

## **ADDENDUM to**

### **IEE of The Subproject of Thieu Do Commune, Thieu Hoa District, Thanh Hoa Province**

#### **Comparison between Subproject Appraisal Report (SAR) and Detail Design (DD) configurations**

##### **1. Project Description**

The Water Supply and Sanitation Subproject (WSSS) for Thieu Do commune, Thieu Hoa District, Thanh Hoa Province has been selected as one of eight Subprojects in Batch 2 of the Central Region Rural Water Supply and Sanitation Sector Project (CRRWSSSP) to be implemented under the Loan Agreement No. 2609 – VIE (SF) between the Socialist Republic of Vietnam (GoV) and the Asian Development Bank (ADB). The Subproject consists of the following components:

- Construction and operation of a piped water supply system for 1 commune with a capacity of 1,300 m<sup>3</sup>/day serving a population of approximately 9,300 people by 2025;
- Provision of in-kind grants for construction of substructure of household latrines to 28 poor households and near-poor female-headed households with women being the sole income providers;
- Establishment of Sanitation Revolving Fund and provide about 315 loans to non-poor households for construction or rehabilitation of hygienic latrines;
- The subproject will provide hygienic septic tank latrines to three schools;
- The subproject will build 797 m of drainage/sewage ditch in the flood-prone areas;
- Promotion of community participation in subproject implementation; carry out subproject CBA-IEC Plan to increase awareness of hygiene and sanitation among local people in the project area; formation and training of Water and Sanitation Commune Committee (WSCC), including recruitment and training of Health and Sanitation Promoters;
- Strengthened sector planning and implementation capacity by training of O&M staff for the water supply systems, improvement of M&E of water



and sanitation investments through promotion of community involvement in data collection and evaluation, capacity building of provincial and commune VMUs to manage sanitation revolving fund; and

- Improved project management capacity by training and support of PPMU, provincial and commune WUs, WSCC and HSPs on: (i) contract management; (ii) financial management; (iii) social and gender awareness; (iv) social safeguards implementation and monitoring; (v) planning and budgeting; (vi) accounting and bookkeeping; (vii) procurement.

During the Subproject preparation phase the IEE report document including Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP) was approved by the ADB as part of the Subproject Appraisal Report (SAR) of Thieu Hoa- Thanh Hoa Water Supply and Sanitation Subproject. This addendum to the IEE of Thieu Hoa- Thanh Hoa Subproject has been prepared based on the finalized Detailed Design and provides information on the changes in the subprojects for updating the IEE.

## **2. Comparison of Changes**

During the detailed design, there is no change in the location of the supply network. The site of Water Treatment Plant and raw water reservoir has been transposed by 50 m to the East to minimize land acquisition. There are also changes in the scope of permanent and temporary land acquisition and minor changes in compensations for loss of crops, trees, structures and graves. These changes do not have influence on the findings of the Subproject's approved IEE Report.

The changes made to the Subproject during the Detailed Design and their impacts on environmental issues based on the Detailed Measurement Survey (DMS) and environmental assessment at the Subproject sites are shown in Figure 1 and Table 1 below:

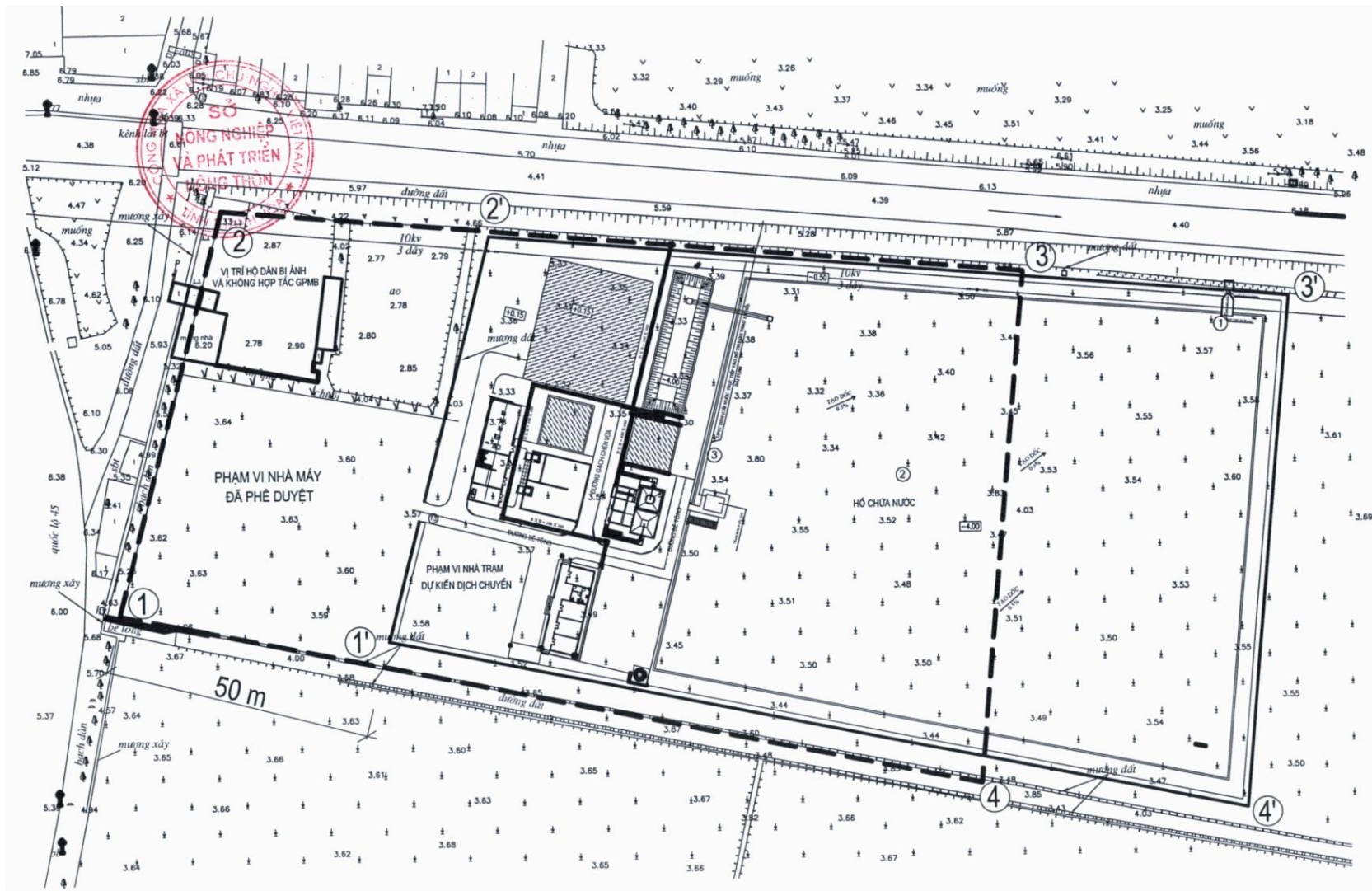


Figure 1 Layouts of the raw water intake and WTP in SAR (1-2-3-4) and Detailed Designs (1'-2'-3'-4')

**Table 7 Description of Changes made during Detailed Design by Subproject Component and their impacts on IEE report.**

Component/ item	Changes between SAR and DD&DMS (Yes/ No)	Clarification and Impacts on IEE Report
<b>I. Head works (raw water source, access road)</b>		
1. Raw water source	<b>No</b>	Still irrigation canal B9
2. Access road	<b>Yes</b>	The land area of the WTP is not anymore closed to the 45 Highway so it is necessary to acquire land for the access road to the WTP. The area of permanently acquired agricultural land for the access road is 339.5 m <sup>2</sup> so there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
<b>II. Water Treatment Plant (WTP)</b>		
1. Location	<b>Yes</b>	To avoid the resettlement impacts on one fish pond guard house with an area of 60 m <sup>2</sup> , the proposed location of water treatment plant has been moved by about 50 m to the East. The land area for construction of the WTP is not anymore closed to Highway 45. For this adjustment, there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
2. Scope of land permanently acquired	<b>Yes</b>	Total land permanently acquired for WTP has increased by roughly 1,700 m <sup>2</sup> according to the DMS. It is still agricultural land which is presently used for rice farming. Thus, there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>



Component/ item	Changes between SAR and DD&DMS (Yes/ No)	Clarification and Impacts on IEE Report
3. Scope of land temporarily acquired	No	No temporary land acquisition for WTP.
4. Capacity	No	
5. Treatment technology	No	The treatment technology is the same, however, the detailed engineering design has been adjusted slightly due to the increase of permanently acquired land for WTP.
<b>III. Power line</b>		
1. Scope of land permanently acquired	Yes	The total area of permanent acquisition of agricultural land for the electrical power supply line is only 82 m <sup>2</sup> , which was not estimated during FS stage. For this adjustment, there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
2. Scope of land temporarily acquired	No	No temporary land acquisition for power line
<b>IV. Drainage canals</b>		
1. Drainage pipe for the WTP	Yes	Drainage pipe D500 from the WTP will be built on agricultural and area of permanent land acquisition is 160m <sup>2</sup> , reducing the land area acquired by roughly 500m <sup>2</sup> compared to the FS stage. Thus, there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
2. Drainage canal serving commune	Yes	A drainage canal serving residential areas with a length of 797 m will be built on agricultural land. The area of permanent land acquisition is 792 m <sup>2</sup> , which was not proposed during the FS stage. For this adjustment, there are <b>no</b>

Component/ item	Changes between SAR and DD&DMS (Yes/ No)	Clarification and Impacts on IEE Report
		<b>changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
<b>V. Raw water pipelines and clean water pipelines</b>		
1. Area of service coverage	<b>No</b>	
2. Scope of land permanently acquired	<b>No</b>	No permanent land acquisition for installation of raw water and clean water pipelines.
3. Scope of land temporarily acquired	<b>Yes</b>	The area of temporary land acquired will be 19,400m <sup>2</sup> compared to 2,600m <sup>2</sup> of the area initially estimated. However, there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
<b>VI. Sanitation</b>		
1. Household latrines	<b>Yes</b>	The numbers of latrines under in-kind grant scheme and Sanitation Revolving Fund have been altered from 87 to 28 latrines and from 52 to 315 latrines respectively. For these alterations, there are <b>no changes to anticipated environmental impacts, the approved EMP and EMoP.</b>
<b>VII. Structures/ assets</b>		
<b>1. Private or public structures/ assets</b>	<b>Yes</b>	In the SAR, one household would lose a guard house and structures with a total area of 60 m <sup>2</sup> and brick fence with length of 120 m. However, as the WTP area has been relocated, the approved detailed engineering design and DMS have proved that there are no private or public structures/assets or trees affected by the Subproject. Thus, there are <b>no changes to anticipated environmental</b>

Component/ item	Changes between SAR and DD&DMS (Yes/ No)	Clarification and Impacts on IEE Report
		<b>impacts, the approved EMP and EMoP.</b>
<b>VIII. Other aspects</b>		
1. New findings about the potentially affected fauna/ flora species or protected structures	<b>No</b>	No new findings about the potentially affected fauna/ flora species or protected structures.
2. Other newly found aspects that can potentially create significant impacts	<b>No</b>	No other newly found aspects that can potentially create significant impacts.

Based on the above assessment and findings the Rapid Environmental Assessment (REA) checklist and the checklist for Preliminary Climate Risk Screening of the Subproject do not change after the detailed design stage.

### 3. Conclusion

The modifications made at the detailed design stage compared to the SAR preparation stage do not materially affect the findings of the IEE Report of Thieu Hoa- Thanh Hoa Subproject. As a result, the approved IEE including the EMP and EMoP of the aforementioned Subproject is still applied for the Subproject.

## CENTRAL REGION RURAL WATER SUPPLY AND SANITATION SECTOR PROJECT

ADB Loan No. 2609-VIE (SF)

# ENDORSEMENT

## OF ADDENDUM TO THE IEE REPORT OF

### WATER SUPPLY AND SANITATION OF

### THIEU DO COMMUNE – THIEU HOA DISTRICT – THANH HOA

### PROVINCE

This endorsement has been prepared based on a combination of observations made during field visits and designs made by third parties. The CPMU, PPMU and PIA Consultant have to the extent reasonably possible validated and verified the information in the IEE report and its appendices. To the best of our belief and knowledge, the included information in this addendum is reasonably accurate and correct.

Thanh Hoa  
PPMU



Nguyen Xuan Trang  
Director

PIA Consultant

*for* Esko Toivonen  
Team Leader

CPMU

Luong Van Anh  
Vice Director

## **Annex 5 Copies of Summary table of compensation with AHs' signature**



**BẢNG TỔNG HỢP CÁC HỘ GIA ĐÌNH BỊ ANH HƯỞNG VĨNH VIỄN ĐÃ NHẬN TIỀN ĐỀN BÙ**  
Công trình: Tiểu dự án Cấp nước sạch và vệ sinh môi trường nông thôn xã Thiệu Đổ, huyện Thiệu Hóa, tỉnh Thanh Hóa  
Thuộc dự án Cấp nước sạch và vệ sinh môi trường nông thôn vùng miền Trung, vay vốn ADB

Thuộc dự án Cấp nước sạch và vệ sinh môi trường nông thôn vùng miền Trung, vay vốn ADB																								
TT	Hệ bị ảnh hưởng				Tổng diện tích bị ảnh hưởng (m2)								Thiệt hại cây trồng		Dự toán kinh phí bồi thường (đồng)								Ký nhận	
	Chủ hộ		Địa chỉ	Số nhân khẩu	Hệ thống nước	Đất nông nghiệp					Lúa, hoa màu			Trang trại								Tổng cộng		
	Tên chủ hộ	Nam/ Nữ				Tỉnh trạng sử dụng đất	Tổng diện tích đất được giao	Diện tích bị ảnh hưởng	%	Số thửa	Tỷ lệ BD	Loại	Diện tích (m2)	Cây lâu năm (cây)	Bồi thường đất	Lúa, hoa màu	Hỗ trợ chuyển đổi nghề nghiệp	Hỗ trợ cho bộ mất hơn 10% diện tích đất NN theo chính sách ADB	Hỗ trợ cho bộ mất từ 30% trở lên diện tích đất nông nghiệp	Hỗ trợ tại chỗ đất lúa	Hỗ trợ hệ thống nước và bộ cày nông có phụ nữ làm chủ hộ theo chính sách ADB			Hỗ trợ đào tạo nghề cho lao động chính của hộ bị mất đất trên 10% theo chính sách ADB
1	LÊ THỊ VAN	Nữ	Thôn 5	4		Số đo	927	399,0	43,0	790	0	lúa			15.900.000		23.940.000	24.000.000	5.400.000	507.927		3.000.000	72.807.927	Lê Thị Van
2	NGUYỄN HỮU SƠN	Nam	Thôn 5	4		Số đo	867	500,0	57,7	790	0	lúa			20.000.000		30.000.000	24.000.000	7.200.000	636.500		6.000.000	87.836.500	Sơn
3	NGUYỄN XUÂN THUY	Nam	Thôn 5	4		Số đo	800	500,0	62,5	790	0	lúa			20.000.000		30.000.000	24.000.000	7.200.000	636.500		6.000.000	87.836.500	Thuy
4	NGUYỄN VĂN NAM	Nam	Thôn 5	4		Số đo	900	500,0	55,6	790	0	lúa			20.000.000		30.000.000	24.000.000	7.200.000	636.500		6.000.000	87.836.500	Nam
5	LÊ THẾ NGUYỄN	Nam	Thôn 5	6		Số đo	2394	791,0	33,0	826+853	6	lúa			51.640.000		47.460.000	24.000.000	5.400.000	1.006.943		6.000.000	115.506.943	Thế Nguyễn
6	ĐOÀN THỊ THANH	Nữ	Thôn 5	5		Số đo	2210	240,0	10,9	827	6	lúa			9.600.000		14.400.000	24.000.000		305.520		6.000.000	54.305.520	Thanh
7	LÊ DUY HẢI	Nam	Thôn 5	4		Số đo	267	100,0	27,2	827	6	lúa			4.000.000		6.000.000	24.000.000		127.300		3.000.000	37.127.300	Hải
8	LÊ THẾ THỨC	Nam	Thôn 5	3		Số đo	1507	1338	88,8	829	6	lúa			53.520.000		80.280.000	24.000.000	10.800.000	1.703.274		0	170.303.274	Thế Thức
9	LÊ DUY LÂM	Nam	Thôn 5	5		Số đo	1121	996,0	88,8	830	6	lúa			39.840.000		59.760.000	24.000.000	18.000.000	1.267.908		12.000.000	154.867.908	Lâm
10	LÊ THỊ THI	Nữ	Thôn 5	6		Số đo	1166	630,0	54,0	831+854	6	lúa			25.200.000		37.800.000	24.000.000	10.800.000	801.990		3.000.000	101.601.990	Thị Thi
11	NGUYỄN HỮU TUYẾN	Nam	Thôn 5	4		Số đo	2098	1288	61,4	832	6	lúa			51.520.000		77.280.000	24.000.000	7.200.000	1.639.624		9.000.000	170.639.624	Tuyến
12	LÊ VĂN BÀN	Nam	Thôn 5	6		Số đo	1477	500,0	33,9	904	6	lúa			20.000.000		30.000.000	24.000.000	10.800.000	636.500		9.000.000	94.436.500	Bàn
13	LÊ THẾ HÀ	Nam	Thôn 5	4		Số đo	883	500,0	56,6	903	6	lúa			20.000.000		30.000.000	24.000.000	7.200.000	636.500		3.000.000	84.836.500	Hà



14	LÊ THỊ LY	Nữ	Thôn 5	8		Số đo	2176	500,0	23,0	902	6	lúa			20.000.000		30.000.000	24.000.000		636.500		0	74.636.500	lê ly
15	LÊ THỊ HẢO	Nữ	Thôn 5	5		Số đo	1882	500,0	26,6	901	6	lúa			20.000.000		30.000.000	24.000.000		636.500	3.000.000		77.636.500	hảo
16	LÊ THỊ MINH	Nữ	Thôn 5	4		Số đo	1508	500,0	33,2	880	6	lúa			20.000.000		30.000.000	24.000.000	7.200.000	636.500		0	81.836.500	thị minh
17	TRẦN TRỌNG HỒNG	Nam	Thôn 5	11		Số đo	1922	1000	52,0	879	6	lúa			40.000.000		60.000.000	24.000.000	12.600.000	1.273.000		0	137.873.000	gọi 100
18	NGUYỄN HỮU NAM	Nam	Thôn 5	5		Số đo	2272	500,0	22,0	878	6	lúa			20.000.000		30.000.000	24.000.000		636.500	9.000.000		83.636.500	hữu nam
19	LÊ THỊ NHỊ	Nữ	Thôn 5	0		Số đo	520	435,0	83,7	877	6	lúa			17.400.000		26.100.000	24.000.000	Đã chốt	553.755		0	68.053.755	thị nhị con
20	HOÀNG THỊ LỖ	Nữ	Thôn 5	3		Số đo	2309	500,0	21,7	876	6	lúa			20.000.000		30.000.000	24.000.000		636.500		3.000.000	77.636.500	lỗ
21	LÊ VĂN TOÀN	Nam	Thôn 5	4		Số đo	781	485,0	87,7	875	6	lúa			27.400.000		41.100.000	24.000.000	14.400.000	872.005		9.000.000	116.772.005	toàn
22	NGUYỄN HỮU CHUNG	Nam	Thôn 5	5		Số đo	2107	912	43,3	874	6	lúa			36.480.000		54.720.000	24.000.000	9.000.000	1.160.976		9.000.000	134.360.976	chung
23	LÊ VĂN THẮNG	Nam	Thôn 5	2		Số đo	862	500	58,0	874	6	lúa			20.000.000		30.000.000	24.000.000	3.600.000	636.500		6.000.000	84.236.500	thắng
24	NGUYỄN HỮU ĐẠT	Nam	Thôn 5	8		Số đo	2240	1111	49,6	856	6	lúa			44.440.000		66.660.000	24.000.000	14.400.000	1.414.303		6.000.000	156.914.303	đạt
25	NGUYỄN THỊ LÊ	Nữ	Thôn 5	1	X	Số đo	335	295	88,1	856	6	lúa			11.800.000		17.700.000	24.000.000	3.600.000	375.535	2.400.000		59.875.535	
26	NGUYỄN HỮU THIỆN	Nam	Thôn 5	3		Số đo	1582	74,9	4,7	873	6	lúa			2.996.000		4.494.000			95.348		0	7.585.348	
27	TRẦN VĂN NGỌC	Nam	Thôn 5	5		Số đo	1690	64,6	3,8	854b	6	lúa			2.584.000		3.876.000			82.236		0	6.542.236	ngọc
28	NGUYỄN HỮU CHỦ	Nam	Thôn 5	4	X	Số đo	1930	65,0	3,4	855	6	lúa			2.690.000		3.900.000			82.745	1.200.000	0	7.782.745	chủ (bố)
29	LÊ THỊ LY	Nữ	Thôn 5	5		Số đo	670	46,5	6,9	833	6	lúa			1.860.000	0	2.790.000			59.195		0	4.709.195	chất (bố)
30	LÊ HỮU TƯỜNG	Nam	Thôn 5	5		Số đo	450	36,5	8,1	834	6	lúa			1.460.000	0	2.190.000			46.465			3.696.465	snis (vợ)
31	LÊ THỊ HOA	Nữ	Thôn 5	3		Số đo	385	40,7	10,6	835	6	lúa			1.628.000	0	2.442.000	24.000.000		51.811		3.000.000	31.121.811	hoa
32	LÊ NGUYỄN CƯỜNG	Nam	Thôn 5	6		Số đo	1265	35,7	2,8	837	6	lúa			1.428.000	0	2.142.000			45.446			3.615.446	cường



33	LÊ QUÝ NGÀ	Nam	Thôn 5	8		Số đo	1850	35,0	1,9	931	6	lúa			1.400.000		2.100.000			44.555			3.544.555	Ungat
34	LÊ THẾ HỒNG	Nam	Thôn 5	6		Số đo	1466	4,0	0,3	948	6	lúa			160.000		240.000			5.092			405.092	Hồng
35	NGUYỄN HỮU THỤ	Nam	Thôn 5	5		Số đo	2020	2,0	0,1	971	6	lúa			80.000		120.000			2.546			202.546	Phu
36	NGUYỄN HỮU HAI	Nam	Thôn 5	6		Số đo	1684	2,0	0,1	972	6	lúa			80.000		120.000			2.546			202.546	Hai
37	LÊ SỸ CHỊ	Nam	Thôn 6	4		Số đo	1370	2,0	0,1	974	6	lúa			80.000		120.000			2.546			202.546	Chi
38	LÊ VĂN SỰ	Nam	Thôn 6	5		Số đo	1695	2,0	0,1	1.002	6	lúa			80.000		120.000			2.546			202.546	Cô vợ
39	LÊ CÔNG DÂN	Nam	Thôn 6	6		Số đo	1890	35,0	1,9	1.005	6	lúa			1.400.000		2.100.000			44.555			3.544.555	Mười con
40	NGUYỄN THỊ ĐƯ	Nữ	Thôn 1	6		Số đo	1886	14,0	0,7	470	10				560.000		840.000			17.822			1.417.822	Thao
41	NGUYỄN VĂN TƯỢNG	Nam	Thôn 1	6		Số đo	1966	109,7	5,6	471-410	10				4.388.000		6.582.000			139.648			11.109.648	Tượng
42	NGUYỄN VĂN THÀNH	Nam	Thôn 1	5		Số đo	1778	154,3	8,7	518	10				6.172.000		9.258.000			196.424			15.426.424	Thành
43	LÊ THANH HẢI	Nam	Thôn 1	4		Số đo	1128,1	129,5	11,5	437	10				5.180.000		7.770.000	24.000.000		164.854		6.000.000	43.114.854	Hải
44	LÊ THỊ VIỆN	Nữ	Thôn 2	4	X	Số đo	797	70,2	8,8	436	10				2.808.000		4.212.000			89.365	2.400.000		9.509.365	Viện
45	NGUYỄN THỊ VÊ	Nữ	Thôn 2	4		Số đo	1367	54,4	4,0	435	10				2.176.000		3.264.000			69.251			5.509.251	Vê
46	HOÀNG TRỌNG CƯỜNG	Nam	Thôn 2	4		Số đo	977	52,9	3,4	433	10				1.316.000		1.974.000			41.882			3.331.882	Trọng Cường
47	ĐỖ VĂN KHÔI	Nam	Thôn 2	5		Số đo	1183	64,0	5,4	434	10				2.560.000		3.840.000			81.472			6.481.472	Khôi
48	CAO VĂN MINH	Nam	Thôn 2	4		Số đo	1083	33,3	3,1	133	10				1.332.000		1.998.000			42.391			3.372.391	Minh
49	NGUYỄN HỮU HỒNG	Nam	Thôn 2	8		Số đo	1634	36,7	2,2	380	10				1.468.000		2.202.000			46.719			3.716.719	Hồng
50	LÊ THỊ LẠN	Nam	Thôn 2	6		Số đo	1433	68,8	4,8	355	10				2.752.000		4.128.000			87.582			6.967.582	Lan
51	LÊ SỸ CƯỜNG	Nam	Thôn 2	4		Số đo	1666	3,3	0,2	155	10				132.000		198.000			4.201			334.201	Cường

52	TRINH VAN KHANH	Nam	Thôn 2	4		Số đo	1753	4,2	0,2	151	10				168.000		252.000			5.347			425.347	Hiên (v.b)
53	HOANG NGOC TUAN	Nam	Thôn 2	4		Số đo	1633	6,4	0,4	150	10				256.000		384.000			8.147			648.147	Hoàng
54	LE VAN HUNG	Nam	Thôn 2	5		Số đo	1445	2,9	0,2	148	10				116.000		174.000			3.692			293.692	Le Van Hung
55	LE THI THUOC	Nữ	Thôn 2	6		Số đo	1946	2,1	0,1	154	10				84.000		126.000			2.673			212.673	Le Thi Thuoc
56	NGUYEN HUU QUANG	Nam	Thôn 2	6		Số đo	2072	5,3	0,3	134	10				212.000		318.000			6.747			536.747	Nguyen Huu Quang
I	Tổng cộng			268				16957,9				0	0	678.316.000	0	1.017.474.000	648.000.000	162.000.000	21.587.407	6.090.000	126.000.000	2.659.377.407		
	Thuế tư sản khai sát giá																						19.751.000	
	Hỗ trợ cải tạo đất lúa																						55.000.000	
II	BTGPMB																						53.187.548	
	Tổng cộng																						2.787.316.000	

(Số tiền bằng chữ: Hai tỷ, bảy trăm tám mươi bảy triệu, ba trăm mười sáu nghìn đồng)

ĐẠI DIỆN  
BAN QUẢN LÝ DỰ ÁN  
TRUNG TÂM  
MÚC SINH HOẠT VÀ  
VỀ SINH HOẠT TỈNH  
NÔNG THÔN MỚI  
GIÁM ĐỐC  
Nguyễn Xuân Trang

ĐẠI DIỆN  
HỘI ĐỒNG GPMB HUYỆN  
HỘI ĐỒNG GPMB HUYỆN  
Nguyễn Văn Tâm

ĐẠI DIỆN  
HỘ BỊ ẢNH HƯỞNG  
TUYÊN  
Nguyễn Hữu Tuyên

Thanh Hóa ngày 07 tháng 9 năm 2015  
ĐẠI DIỆN  
UBND XÃ THIỆU ĐỒ  
Lê Thế Kỳ