



Japan International Cooperation Agency

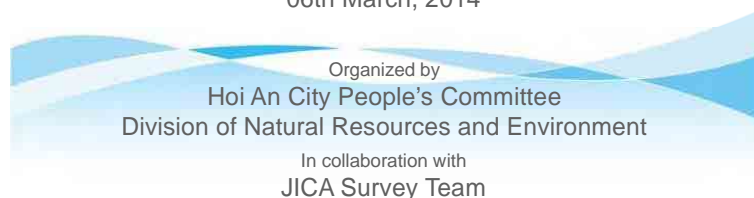


Hoi An City People's Committee
Division of Natural Resources and Environment

Water Quality Improvement Project for Japanese Bridge Area,
Hoi An in Socialist Republic of Vietnam

The Stakeholders' Meeting

06th March, 2014



Agenda

Session I; Meeting with Concerned Agencies (8.00 – 9.00)

1. Opening Speech (Hoi An CPC, DONRE)
2. General introduction of the Project
3. Introduction of environmental & social considerations on the Project
4. Question and answer
5. Conclusion and close the meeting

Session II; Meeting with Concerned Residents and Businesses (9.00 – 10.00)

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Objectives of the Meeting

Objectives

- To have mutual agreement on key contents of the Project
- To introduce, discuss and agree on environmental social considerations of the Project

Participants

- Key officials from Hoi An CPC
- Key agencies concerned
- Concerned Residents and Businesses (only Session II)

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Confirmation of Handouts

- ☐ **Agenda & Participants List**
- ☐ **Presentation handout**
- ☐ **Opinion Sheet**

Please fill in your opinions and recommendations on the Opinion Sheet and submit it to JICA Survey Team.

Please fill in the Attendant List and hand on it to the next.

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1. Opening Speech

- Hoi An CPC
- DONRE

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2. General introduction of the Project

- **Mr. Kazuhiro ASADA**
– Team Leader of the JICA Survey Team

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Background and Objectives

Background

- The water quality of the Channel flowing under the Japanese Bridge is being deteriorated caused by directly inflow of domestic wastewater without proper treatment.
- Odors from the Channel is also one of the problems.

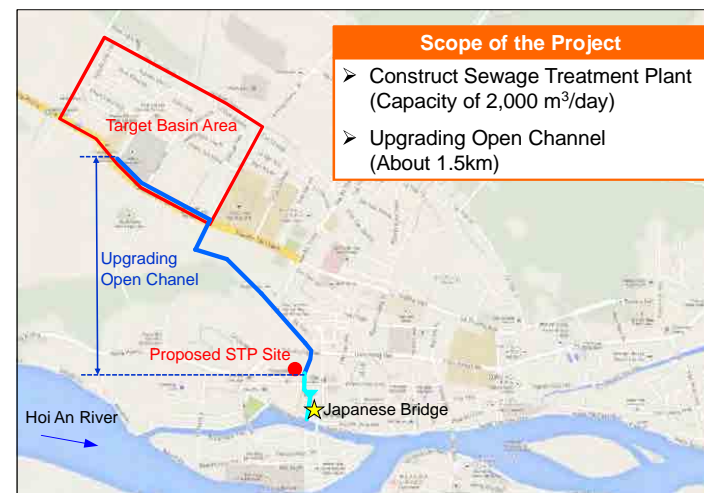
Agreement on preparatory survey for water quality improvement project between Quang Nam PPC / Hoi An CPC and JICA (December, 2013)

Objectives

- Improve the water quality of the channel flowing under the Japanese Bridge
- Prevent the odors and improve the sanitation along the Channel

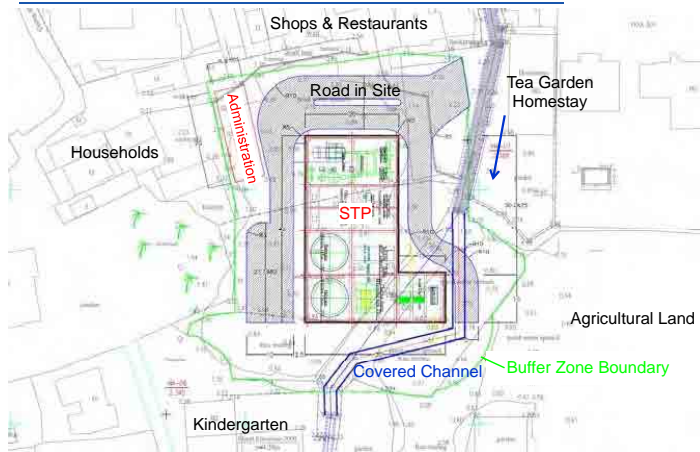
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Scope of the Project



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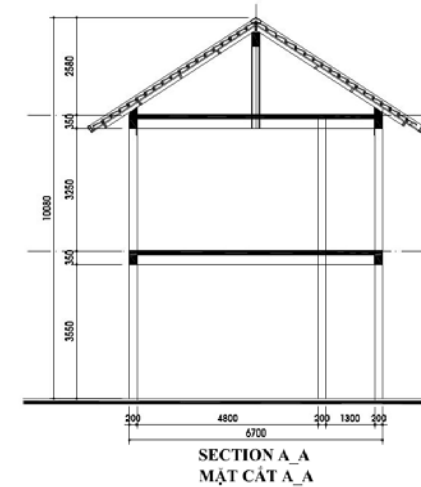
Sewage Treatment Plant - Tentative Layout



Buffer zone of 15m regulated by Vietnamese Infrastructure Code is required to make consideration of surrounding environment.

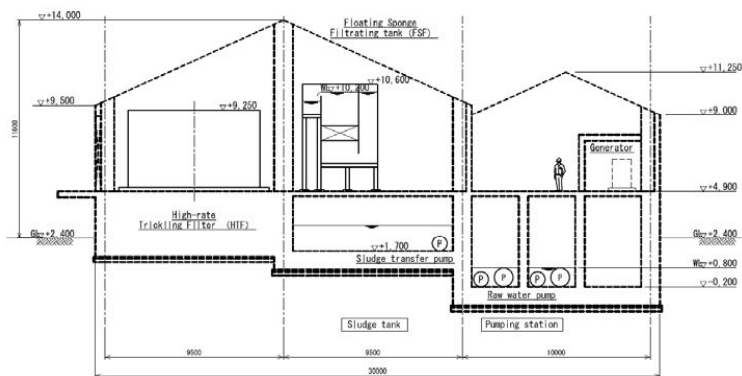
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Sewage Treatment Plant - Administration Building



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Sewage Treatment Plant - STP Building



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Sewage Treatment Plant - Tentative Building Design

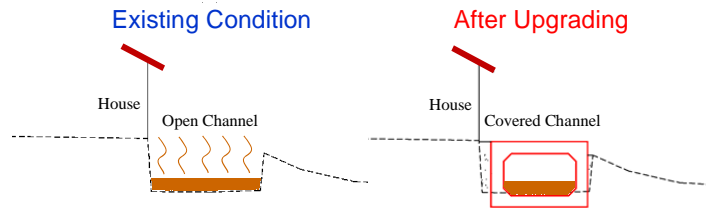


STP building is designed with consideration for landscape based on the regulation for Zone II-A of historical protection area.

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Upgrading Open Channel

Image of Cross Section



- Box culvert or drain with lid is constructed to prevent odors diffusion.
- Existing discharge capacity in the Channel doesn't change.

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Tentative Schedule

- ❑ Preparatory Survey ; to November, 2014
- ❑ Signing of E/N and G/A ; January, 2015
- ❑ Commencement of Construction ; September, 2015
- ❑ Commencement of Operation ; December, 2016

(E/N; Exchange of Notes, G/A; Grant Agreement)

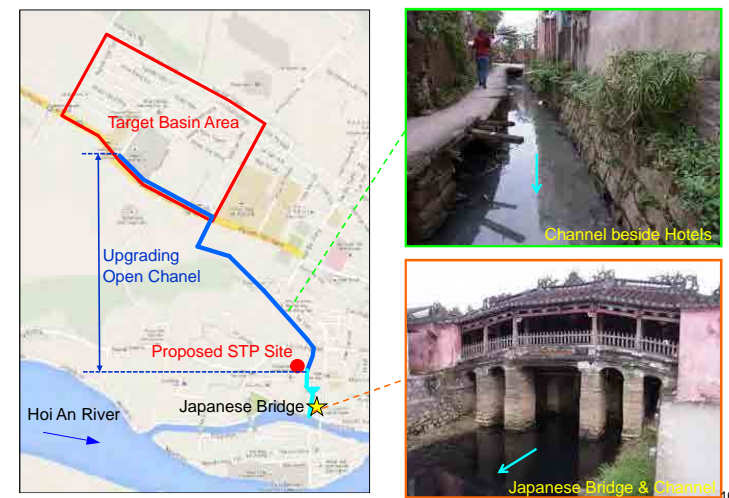
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3. Introduction of environmental & social considerations on the Project

- ❑ **Mr. Tatsuya TOBE**
– Environmental Engineer of the JICA Survey Team

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Current Conditions (1)



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Current Conditions (2)



Main Impacts & Mitigation Measures

In Construction Phase (STP & Channel)

Impact	Source of Pollution	Mitigation Measures
Dust & Emission	<ul style="list-style-type: none"> ➢ Dust from earthworks & construction ➢ Gas emission from construction machines and vehicles for material transportation 	<ul style="list-style-type: none"> ➢ Watering on road and construction site ➢ Drive vehicles slowly with canvas covers ➢ Use low-emission machines
Noise & Vibration	<ul style="list-style-type: none"> ➢ Construction machines and vehicles for material transportation 	<ul style="list-style-type: none"> ➢ Drive vehicles slowly ➢ Construction during only daytime
Solid Waste	<ul style="list-style-type: none"> ➢ Soil from excavation ➢ Construction waste ➢ Domestic waste from workers 	<ul style="list-style-type: none"> ➢ Implement proper solid waste collection & disposal

Main Impacts & Mitigation Measures

In Operation Phase (STP)

Impact	Source of Pollution	Mitigation Measures
Noise	<ul style="list-style-type: none"> ➢ Pump & some equipment ➢ Private electric generator in emergency 	<ul style="list-style-type: none"> ➢ Not much equipment arise loud noise ➢ Install all equipment inside the closed building
Odors	<ul style="list-style-type: none"> ➢ All treatment process ➢ Sludge drying process 	<ul style="list-style-type: none"> ➢ Install all processes inside the closed building ➢ Deodorization by activated carbon adsorption
Solid Waste	<ul style="list-style-type: none"> ➢ Sludge from STP ➢ Domestic waste from operators 	<ul style="list-style-type: none"> ➢ Implement proper solid waste collection & disposal

There are little noise and odors around STP as a result of closed building and deodorization process.

Tentative Monitoring Plan

It is important to monitor the environmental impacts periodically during construction phase and operation phase.

Element	Items	Frequency	Location
Dust & Emission	TSP, SOx, NOx, CO	2 times/year	<ul style="list-style-type: none"> ➢ STP & Surrounding Area ➢ Upstream of Channel
Odors	NH ₃ , H ₂ S	2 times/year	
Noise	Decibel (dBA) levels	2 times/year	
Waste Water Quality	pH, BOD, COD, TSS, NO ₃ -N, NH ₄ -N	2 times/year	➢ STP
Surface Water Quality		2 times/year	➢ Japanese Bridge
Groundwater Quality	pH, COD, TDS, TSS, hardness	2 times/year	➢ Wells near STP

Land Acquisition and Compensation

1. Land Acquisition in Proposed STP Site (6 Lots)

- 4 private (3 households) and 2 public lots

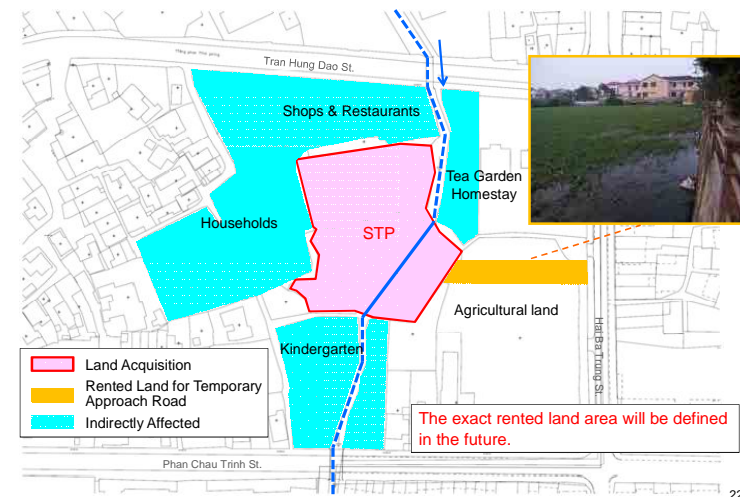
The following compensation will be required by commencement of construction.

2. Rented Land for Temporary Approach Road in Construction
3. Cutting of Bamboo along the Channel for Construction

- ☐ Compensation of lost assets and temporary rented land according to current regulations.
- ☐ Due considerations to poor people along the Channel.

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Affected Households & Businesses (1)



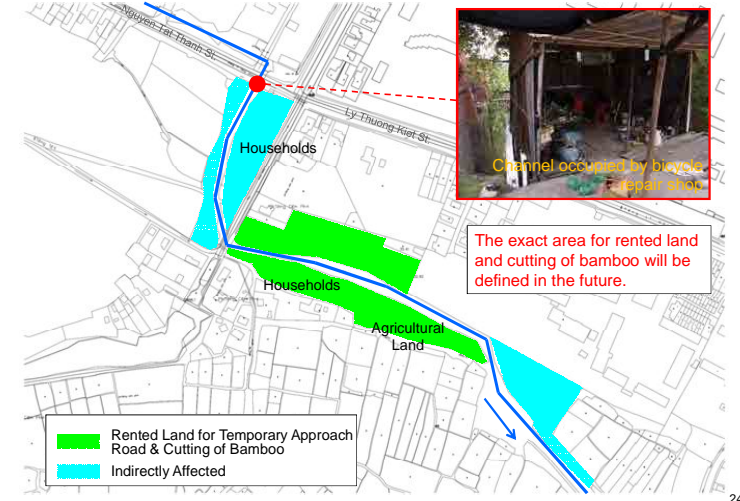
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Affected Households & Businesses (2)



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Affected Households & Businesses (3)



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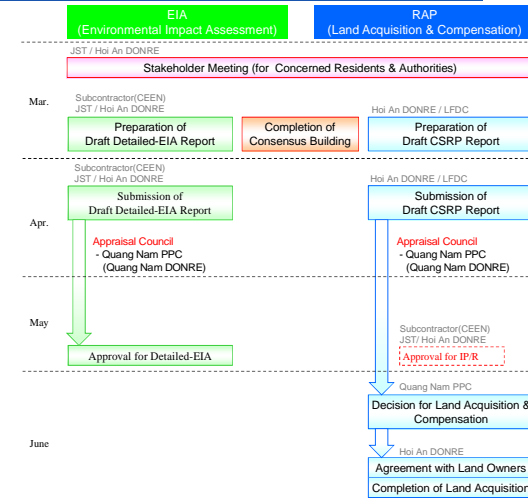
Affected Households & Businesses (4)



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EIA & RAP Schedule

*CSR(P) (Compensation, Support and Resettlement Plan); RAP specified in Vietnamese Regulations
 *LFDC (Land Fund Development Centre), Institution for Survey and Measurement on Compensation



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4. Question and answer

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