

## Report on Leader City training workshop, Surabaya, Indonesia. 7-9 March 2017.

This report summarises the first Leader City workshop for the AltWater project. The project workshop was held in Surabaya, Indonesia on 7-9 March 2017, with the 10<sup>th</sup> March also comprising of project-related activities. Dr. Janez Sušnik, and Associate Professor Saroj Sharma from UNESCO-IHE attended.

The workshop was organised by Institut Teknologi Sepuluh Nopember (ITS), one of the main AltWater project partners. In particular we thank Dr. Adhi Yuniarto for his help in arranging the workshop, attendance of local stakeholders and logistics. The location for the workshop was the Ibis City Centre hotel in Surabaya. The workshop was well attended, with a total of 33 participants from the following organisations:

- ITS
- East Java Development Planning Agency
- East Java Environmental Protection Agency
- East Java Water Supply Development Agency
- East Java Public Work Agency
- Sub-nation Water Regulator Agency
- Surabaya and Gresik Development Planning Agency
- Surabaya and Gresik Environmental Protection Agency
- Surabaya and Gresik Water Supply Enterprise.

A copy of the workshop programme is shown in Appendix 1. The programme started with a welcome and opening by Prof. Wahyono Hadi of ITS. Dr. Sharma presented material on urban water supply and demand management. Dr. Sušnik presented on baseline urban water supply and demand assessment, future urban water supply and demand assessment, alternative water systems and their quantification and on institutional analysis. The presentations from IHE staff are available on the Outputs section of the website. Throughout the programme, there was a good spirit of interaction from the participants, and IHE staff also learned a great deal about the local context and challenges.

Following the workshop, ITS staff organised two study visits. The first was to the water treatment plant for Surabaya “PDAM Surya Sembada” on the outskirts of Surabaya. The second visit involved a meeting and presentation from the head of the planning agency in Gresik on the local water supply and demand characteristics, followed by a visit to the water treatment plant for Gresik “PDAM Giri Tirka Kabupaten”. Following from these visits, Dr. Sušnik was invited to give a guest lecture at ITS on Integrated Water Resources Management, which was well attended by about 45 ITS Masters students. After this, the visit concluded with a meeting with the Rector of ITS, Prof. Joni Hermana.

Photos from the workshop can be viewed in the Photo Gallery section of the website.



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## Appendix 1: Copy of the workshop programme

AltWater Project - Workshop Training Programme  
Surabaya, 7 – 9 March 2017



### *AltWater Project* *Workshop Training Programme* Surabaya, 7-9 March 2017

<b>Project Name</b>	<b>AltWater</b> <i>Enabling the assessment of alternative water supply systems to promote urban water security in the Global South</i>
<b>Practitioner</b>	ITS Research and Community Development Center cooperate with UNESCO IHE Netherland
<b>Project Duration</b>	2016 – 2020
<b>Project StudySite</b>	Surabaya and Gresik Regency
<b>Project Background</b>	<p>The availability of clean water being fundamental due to all needs toward social welfare improvement including economic growth and environmental preservation. Trend of urban water in Indonesia still unsustainable in many areas. This is owing to the increasing demand of clean water, high rate of non-revenue-water (NRW) as challenge for institutional and asset management as well as the impacts of climate change and environmental pollution problems.</p>

Moreover, the current condition of water supply in Indonesia is getting worse along with high pollution in water bodies or the increasing of clean water demand as consequence of uncontrolled population growth. In addition, the fact presented that the fresh water stockpile in East Java about 5% from the total of national water stockpile with high consumption rate about 58%. This lead to fresh water deficit about 134 million m<sup>3</sup> each year. Furthermore, the availability of clean water problems by dint of water pollution from both domestic and industrial activities presented 75% out of 57 big rivers in Indonesia have been polluted (75% highly polluted, 35% medium polluted, and 3% less polluted).

Looking the facts and problems that existed, it is essential to do further analysis and assessment about water supply alternative as solution to cope with water scarcity and water problems obviously in long dry season and alleviate the impact of flood. Likewise, the assessment is prominently





necessary for diminishing the demand of pressure on traditional sources and giving contribution of water supply security. Therefore, ITS is having cooperation with UNESCO IHE to do assessment of alternative water supply systems to promote urban water security, chiefly for Surabaya and Gresik Regency. This assesment will obtain certain solutions about water supply systems alternative that could be applied in Surabaya and Gresik Regency. This project will be held for 4 years started from 2016-2020.

**Project Objectives**

The main project objective is obtaining some solutions about alternative water supply systems that could be applied in Surabaya and Gresik Regency.

The objectives of workshop training programme as follows:

1. Building the local expert capacity in water sector to carry out the assessment of alternative water supply systems in Surabaya and Gresik
2. Fostering the sense of stakeholders involvement in water sector particularly to promote urban water security in Surabaya and Gresik

**Details of Workshop Training Programme**

Three-day workshop training has several agendas and active discussion sessions as follows:

Day 1 – Tuesday, 7 March 2017

- An introduction: Urban water supply and demand
- Analysis the current condition of urban water supply sources
- Analysis the current condition of urban water demand
- Analysis the plausibility of future urban water supply

Day 2 – Wednesday, 8 March 2017

- An introduction: Urban water demand management
- Analysis the plausibility of future urban water demand
- Potential alternative of water supply systems
- Assessment of the potential contribution of alternative water supply systems

Day 3 – Thursday, 9 March 2017

- Institutional analysis: challenges and opportunities for implementing alternative supply solutions





*AltWater Project Workshop Training Programme*

Surabaya, 7 - 9 March 2017

Time	Duration	Activity
<b>Tuesday, 7 Maret 2017 [Workshop Training: Day 1]</b>		
08.30 - 09.15	45 minutes	Registration
09.15 – 09.45	30 minutes	Welcome speech Speaker: Prof. Adi Soeprijanto as Head of Research Center ITS Introduction of Project Speaker: Dr. Janez
09.45-10.45	60 minutes	Introduction and Backgorund: Surabaya and Gresik Water Supply Speaker: Prof. Dr. Ir. Wahyono Hadi, MSc
10.45-11.00	15 minutes	Break
11.00-12.30	90 minutes	An introduction: Urban water supply and demand Speaker: Assoc. Prof. Sharoj Sharma
12.30-13.30	60 minutes	Lunch and praying Time
13.30-14.15	45 minutes	Analysis the current condition of urban water supply sources Speaker: Dr. Janez Susnik
14.15-15.00	45 minutes	Analysis the current condition of urban water demand Speaker: Dr. Janez Susnik
15.00-15.30	30 minutes	Break
15.30-17.00	90 minutes	Analysis the plausibility of future urban water supply Speaker: Dr. Janez Susnik
<b>Wednesday, 8 Maret 2017 [Workshop Training: Day 2]</b>		
08.00 – 08.30	30 minutes	Registration
08.30 – 09.30	60 minutes	Community-based water supply system Speaker: Dr. Eddy Setiadi S. (tentative)
09.30-10.45	75 minutes	An introduction: Urban water demand management Speaker: Assoc. Prof. Sharoj Sharma
10.45-11.15	30 minutes	Break
11.15-12.30	75 minutes	Analysis the plausibility of future urban water demand Speaker: Dr. Janez Susnik
12.30-13.45	75 minutes	Lunch and praying time
13.45-14.30	45 minutes	Potential alternative of water supply systems Speaker: Dr. Janez Susnik
14.30-15.00	30 minutes	Assessment of the potential contribution of alternative water supply systems Speaker: Dr. Janez Susnik
15.00-15.30	30 minutes	Break
15.30-17.00	90 minutes	Assessment of the potential contribution of alternative water supply systems Speaker: Dr. Janez Susnik



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Thursday, 9 Maret 2017 [Workshop Training: Day 3]		
08.00 - 08.30	30 minutes	Registration
08.30 – 09.30	60 minutes	Water demand analysis Speaker: Dr. Ali Masduqi (tentative)
09.30 - 11.30	120 minutes	Institutional analysis: challenges and opportunities for implementing alternative supply solutions Speaker: Dr. Janez Susnik
11.30-12.00	30 minutes	Break
12.00-12.30	30 minutes	Closing and wrapping – up
12.00-13.30	90 minutes	Lunch and praying time

**The Content of  
Workshop  
Training  
Program**

**Tuesday, 7 March 2017**

The first day of workshop training programme begins with an introduction to urban water supply and demand. This session is designed as a brief review course in order to introduce fundamental concepts.

**Analysis the current condition of urban water supply sources**

The main topics covered in this session are having active discussion about:

1. Analysis of water sources
  - Location and transport requirements
  - Quality and treatment requirements
2. Analysis of water supply capacity or volume

**Analysis the current condition of urban water demand**

In this session, the main topics discussed will include:

1. Discussion on analysis of water users
  - Who are they
  - What is their relative importance
2. Discussion on water demand volume

**Analysis the plausibility of future urban water supply**

This session will focus on:

1. Analysis of potential supply changes due to major infrastructure changes
2. Analysis of potential supply changes due to climate change altering available resources

Data sources will be discussed and presented.

**Wednesday, 8 March 2017**

The day begins with an introduction to urban water demand management. This session is designed as a brief review course in order to introduce fundamental concepts.



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### Analysis the plausibility of future urban water demand

This session will focus on:

- Projections of main expected changes in urban water demand due to population change and socio-economic changes in the region.

Data sources will be considered.

### Identification of important/feasible/likely alternative water supply systems: Main points to consider

A suite of alternative systems will be introduced to serve as a starting point for partners to consider. Answers will not be given, but the options and possibilities will be laid out. Partners need to decide themselves which alternative systems are best suited to their circumstances. Items to consider during this assessment including:

- Volume potential
- Public acceptance
- Cost
- Likelihood of uptake
- Financial support
- Time for rollout

### Assessment of the potential contribution of identified alternative supply systems

This session will explore in more detail about:

- The methods and assumptions to estimate the *potential* contribution of each system identified in the preceding section.

The assumptions made will be stressed. Multi-criteria analysis will be introduced.

### Thursday, 9 March 2017

### Institutional analysis: challenges and opportunities for implementing alternative supply solutions

In this session will discuss about:

- The key aspects of governance frameworks will be looked into to create an initial institutional analysis, actors will be considered, along with a mapping of interactions and influence, the institutions themselves will be analysed in terms of capacity and adequacy.
- Values surrounding water will be discussed and using information from the workshop an initial table will be completed with partners to create a first institutional mapping and analysis.



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