

**STUDY OF WATER – SUPPLY SYSTEM  
IN PDAM KABUPATEN KUPANG**

Final Project Report

As a requirement for obtaining Bachelor Degree  
from University of Atma Jaya Yogyakarta

By:

Inacio Maria Deonal De Fatima

08 13 13118



**Department of Civil Engineering International S1 Program**

**Faculty of Engineering**

**UNIVERSITAS ATMA JAYA YOGYAKARTA**

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**APPROVAL**

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**By:**

**INACIO MARIA DEONAL DE FATIMA**

**Student Number: 08 13 13118**

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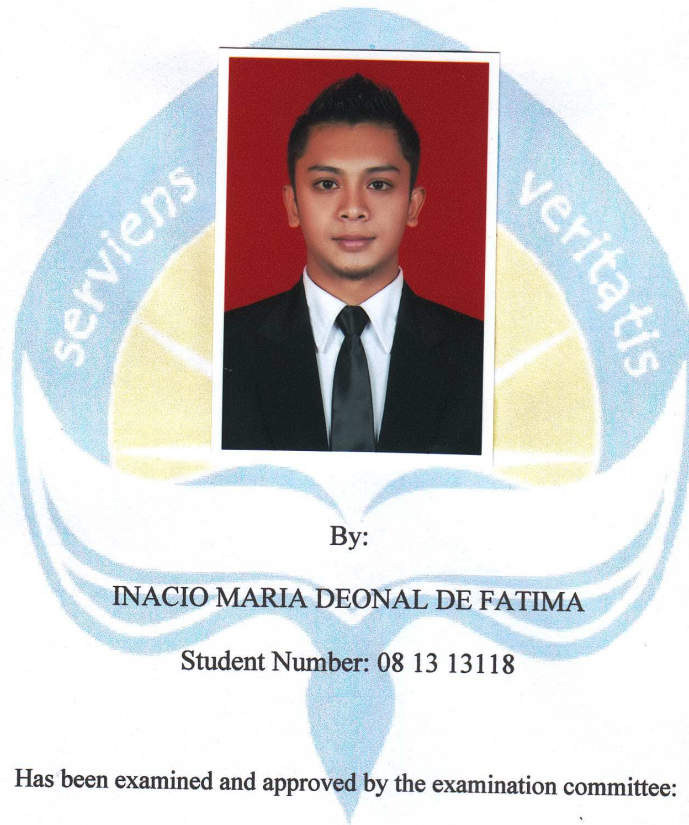
  
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Final Projects Report

STUDY OF WATER SUPPLY SYSTEM

IN PDAM KABUPATEN KUPANG



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## STATEMENT

I, the undersigned below, truly state that the final project titled:

### **STUDY OF WATER SUPPLY SYSTEM IN PDAM KABUPATEN KUPANG**

is really my own work and not a result of plagiarism from other person's work. The idea, data of research's result as well as direct or indirect quotations from other person's writing or idea are written in the most proper way in this final project. If in the future time, this final project is proven to be a result of plagiarism then the undergraduate certificate that I obtained will be canceled and returned to the Rector of Universitas Atma Jaya Yogyakarta.

Yogyakarta, 22 October 2012



(Inacio Maria Deonal De Fatima)

7) Mintalah, maka akan diberikan kepadamu; carilah, maka kamu akan mendapat,  
ketoklah maka pintu akan dibukakan bagimu

8) Karena setiap orang yang meminta, menerima dan setiap orang yang mencari,  
mendapat dan setiap orang yang mengetok, baginya pintu akan dibukakan

(Matthew 7: 7 – 8)

*These two bible paragraphs that make me do believe in  
God about His Greatness and Glory. Sooner or  
later any efforts that I do in His - will are definitely to  
happen. Just leave all your hard work into His hands  
and trust that He will work on you.*

*Thanks God, You always help me to finish this final  
project and this study with all your ways...*

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Finally, this final project is devoted to you all (citizen of Kupang City, my family, and my friends). I hope this report could give advantages for the readers. Thank you for reading this report.

Yogyakarta, October 2012

Inacio Maria Deonal De Fatima

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## LIST OF GLOSSARY



<b>Badan Lingkungan Hidup Daerah</b>	- Regional Enviromental Agency
<b>Badan Pengelolaan Air Minum (BPAM)</b>	- Agency of water management
<b>PDAM Kabupaten Kupang</b>	- Municipal Waterworks of Kupang District
<b>Perusahaan Listrik Negara (PLN)</b>	- Institution of Electricity Power
<b>Unit Pelayanan Teknis Laboratorium Kesehatan</b>	- Technical Services Unit of Medical Laboratory

## ABSTRACT

**STUDY OF WATER SUPPLY SYSTEM IN PDAM KABUPATEN KUPANG**, Inacio Maria Deonal De Fatima, Student Number 08 13 13118, 2008, Specialization Field of Water Engineering, Department of Civil Engineering International, Faculty of Engineering, University of Atma Jaya Yogyakarta.

City and district of Kupang are areas that face problem of imbalance demand – supply domestic water. Customers of PDAM complain about its water quality, quantity, continuity, and PDAM's management system. Based on this issue, this research will (1) Identify the water – supply system that applied by PDAM Kabupaten Kupang both in term of its components (elements) and way of its system working; (2) Identify the fitness of water – supply system that applied by PDAM Kabupaten Kupang to the referred standard of water quality, quantity, continuity, accessibility and affordability; (3) Identify the root problem of water – supply system of PDAM Kabupaten Kupang; (4) Provide recommendations of solution to overcome the problem of PDAM Kabupaten Kupang.

The data analysis of obtained data (primary and secondary) will be conducted in simple descriptive analysis to describe real situation of water supply system of PDAM Kabupaten Kupang. It is about comparing the real situation to referred standard applied by PDAM Kabupaten Kupang. Questionnaire result will support this analysis. Causal relationship analysis is applied to the problems in PDAM Kabupaten Kupang to identify the root cause of the problem.

After conducting the research, the results are as follows: (1) Water supply system applied by PDAM Kabupaten Kupang is similar to common water supply system, except there is no treatment facilities. Each water source have their own system and service zone. There is no point to collect water from all water sources. There are two types of water sources i.e. spring and drilling well; (2) Water supply system that applied by PDAM Kabupaten Kupang partially meets the parameters of referred standar i.e. quality, quantity, continuity, and PDAM managements and fully meets the accessibility and affordability; (3) The root cause of PDAM Kabupaten Kupang problem is its management both technical and non technical aspects. (4) The recommendation that can be drawn to overcome the problem in PDAM Kabupaten Kupang is PDAM should improve its management both technical and non technical management.

**Keywords:** water supply system, parameters of water supply system, quality, quantity, continuity, accessibility, affordability and management.