WATER CRISIS SOLUTIONS IN THE QUR'ANIC AND SCIENTIFIC PERSPECTIVE (THEMATIC STUDY)

UNDERGRADUATE THESIS

BY NADA RAHMATINA



ANTASARI STATE ISLAMIC UNIVERSITY BANJARMASIN 2022

WATER CRISIS SOLUTIONS IN THE QUR'ANIC AND SCIENTIFIC PERSPECTIVE (THEMATIC STUDY)

Undergraduate Thesis

Submitted in partial fulfillment of the assignments and requirements for the S.Ag degree in Qur'anic Studies at Antasari State Islamic University

> By Nada Rahmatina SRN: 180103020161

ANTASARI STATE ISLAMIC UNIVERSITY USHULUDDIN AND HUMANITIES FACULTY QUR'ANIC STUDIES DEPARTMENT BANJARMASIN 2022

INTELLECTUAL PROPERTY STATEMENT

I am who undersign:

Name	: Nada Rahmatina
SRN	: 180103020161
Place/Birth	: Kertak Hanyar, 28 th November, 1999
Faculty	: Ushuluddin and Humanities
Department	: Qur'anic Studies

Certify that my thesis entitled: Water Crisis Solutions in the Qur'anic and Scientific Perspective (Thematic Study) is my original work and no portion of my research has been copyrighted previously unless the source was called properly. If there is a breach of the items above, I will take full responsibility to Ushuluddin and Humanities Faculty, Antasari State Islamic University for any legal action that might be caused.

Thus, I sign the statement consciously.

Banjarmasin, 12th of July, 2022

Author



Nada Rahmatina SRN: 180103020161

APPROVAL SHEET

WATER CRISIS SOLUTIONS IN THE QUR'ANIC AND SCIENTIFIC PERSPECTIVE (THEMATIC STUDY)

Presented and written by:

Nada Rahmatina

SRN: 180103020161

Having been checked out and revised properly. I hereby approve this research to be submitted and examined in front of the undergraduate thesis examination committee of Ushuluddin and Humanities Faculty, Antasari State Islamic University for partial fulfillment of the assignments and the requirements to obtain S.Ag. degree.

Supervisor I

Supervisor II

Dr. H. Wardani, M.Ag. ORN: 19730411 200212 1 002

Riza Saputra, MA. ORN: 19891025 201903 1 016

Head of Qur'anic Studies Department

H. Muhammad Arabiy, MA ORN: 19860801 201503 1 003 Date, 13th of July 2022

VALIDATION

WATER CRISIS SOLUTIONS IN THE QUR'ANIC AND SCIENTIFIC

PERSPECTIVE (THEMATIC STUDY)

Presented and written by:

Nada Rahmatina

SRN: 180103020161

Has Been Examined by Undergraduate Research Examination Committee:

On: Thursday, 28th of July, 2022

EXAMINERS

No.

 Prof. Dr. H. Abdullah Karim, M. Ag. ORN. 19550214 198203 1 002 (Chairman)

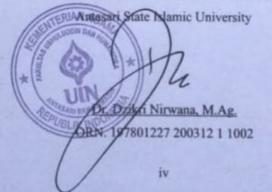
Name

- Dr. Saifuddin, M. Ag. ORN. 19710821 199703 1 002 (Member)
- Dr. H. Wardani, M. Ag. ORN. 19730411 200212 1 002 (Member)
- Riza Saputra, M.A. ORN. 19891025 201903 1 016 (Member)
- H. Hanafi, S.Th.I., M.A. ORN. 19920920 202203 1 002 (Secretary)

Signature

Acknowledged by:

Dean of Ushuluddin and Humanities Faculty



ABSTRACT

Nada Rahmatina. SRN: 180103020161. WATER CRISIS SOLUTIONS IN THE QUR'ANIC AND SCIENTIFIC PERSPECTIVE (THEMATIC STUDY). Supervisor I: Dr. H. Wardani, M.Ag, Supervisor II: Riza Saputra, MA. Undergraduate Thesis, Qur'anic Studies Department, Ushuluddin and Humanities Faculty, Antasari State Islamic University, 2022.

Keywords: solution, water crisis, Qur'anic perspective, scientific perspective.

Water is a very essential need for human life and all living things. The community's high demand for water cannot be met because the water crisis is still happening today. A water crisis can be in terms of quantity and quality. The limited research that specifically examines the water crisis and its solution in the Qur'an encourages the author to make this research.

This research has two problem statements, namely 1) How are the solutions in the Qur'anic and scientific perspective to solve the problem of water quantity crisis and 2) How are the solutions in the Qur'anic and scientific perspective to solve the problem of water quality crisis.

This research uses thematic interpretation method $(maudh\hat{u}'\hat{\imath})$ with scientific interpretation approach. The research was conducted by collecting verses of the Qur'an which have term meaning water, including rivers, seas, and springs. These verses are then explained with otoritative interpretation and strengthened by scientific theory.

The results of this research are formulated as water crisis solutions in terms of quantity and quality. The water quantity crisis solutions as implied in the Qur'an and supported by scientific theory are divided into two major points. *First*, optimization of water management (Q.S. al-Ra'd/13: 17) which can be done through saving water (Q.S. al-Isrâ`/17: 26-27, Q.S. al-A'râf/7: 31) and making waterways or drainage (Q.S. Hûd/11: 44). *Second*, even water distribution (Q.S. al-Qamar/54: 28, Q.S. al-Baqarah/2: 60. Q.S. al-A'râf/7: 160) through the creation of water distribution reservoirs (Q.S. al-Zumar/39: 21) and prohibition of water privatization (Q.S. al-<u>H</u>ijr/15: 22). Meanwhile, the water quality crisis solutions are implied in the Qur'an and supported by scientific theory in five respects. *First*, reforestation (Q.S. al-An'âm/6: 99 and 141, Q.S. al Ra'd/13: 4, and Q.S. al-Na<u>h</u>l/16: 10-11). *Second*, watersheds conservation (Q.S. Hûd/11: 61). *Third*, controlling water pollution (Q.S. al-Ghâsyiyah/88: 12). *Fourth*, making biopore infiltration holes (Q.S. al-Rûm/30: 41, Q.S. Hûd/11: 37). *Fifth*, making rainwater harvesting (Q.S. al-Mu`minûn/23: 18).

ACKNOWLEDGMENT

الحَمْدُ لله الّذِي بِنِعْمَتِه تَتِمُّ الصَّالحِاتِ. الحَمْدُ لِلَهِ الَّذِيْ أَحْصَى كُلَّ شَيْءٍ عَدَدًا، وَجَعَلَ كُلَّ شَيءٍ أمَدًا، وَلا يُشْرِكُ فِي حُكمِه أَحَدًا. اللّهم صَلِّ وَسَلِّم عَلى سَيِّدِنَا مُحَمَّدٍ الْفَاتِحِ لِما أغلِق، وَ الخَاتِم لِما سَبَق، نَاصِر الحَقِّ بِالحَقِّ وَ الهادِي إلى صِرَاطِكَ الْمُسْتَقِيْم، وَعَلى آلِه حَقَّ قَدْرِهِ وَمِقْدَارِهِ العَظِيْم.

All praises to Allah, for the guidance and ease He has given to me to complete this education. The education journey for 4 years certainly passed with various experiences. From the beginning until succeed to get to this point, it cannot be separated from the help of various parties. The author gives high appreciation to everyone who has helped in writing this undergraduate thesis, namely:

- Dr. Dzikri Nirwana, M.Ag. as the dean of Ushuluddin and Humanities Faculty of Antasari State Islamic University and all his staffs for their help in the administrative matters.
- 2. H. Muhammad Arabiy, MA. as the head of Qur'anic Studies Department and all of the lecturers of Ushuluddin and Humanities Faculty who has helped and motivated the author during the education.
- 3. Special gratitude to Dr. H. Wardani, M.Ag. and Riza Saputra, MA. as the author's supervisors. Because of their help, kindness, supports, and motivation, the author can complete this undergraduate thesis.
- 4. All lecturers of Ushuluddin and Humanities Faculty who cannot be mentioned one by one by the author.
- My beloved parents who always give the author help, strength, supports, motivation, and also pray for the author every day. My closest role model, Drs. Bayani Dahlan, M.Ag and Dr. Tarwilah M.Ag.
- 6. All my best friends, especially in PK14, who always be in the author's side to support each other and create so many memories together in PKU. Special thanks to Rijal Ali, Mailani Ulfah, Ranty Sulastri, Raihani, and Izzatul

Hasanah who always helped and encouraged the author in completing this undergraduate thesis.

7. All the parties who have helped the author in completing this undergraduate thesis, directly or indirectly, which the author may not be able to mention one by one.

Finally, the author hopes that this undergraduate thesis will be useful for the next researchers. The author also hopes this research will be beneficial to many people.

Banjarmasin, 12th of July, 2022

Nada Rahmatina 180103020161

TRANSLITERATION TABLE AND ABBREVIATIONS

1.	۱:	А	16.	: ط	Th
2.	: ب	В	17.	: ظ	Zh
3.	: ت	Т	18.	: ع	I
4.	: ث	Ts	19.	: غ	Gh
5.	: ج	J	20.	: ف	F
6.	: ح	<u>H</u>	21.	: ق	Q
7.	: خ	Kh	22.	: ك	K
8.	: د	D	23.	: ل	L
9.	: ذ	Dz	24.	: م	М
10.	: ر	R	25.	: ن	Ν
11.	: ز	Z	26.	: و	W
12.	: س	S	27.	: ھ	Н
13.	: ىش	Sy	28.	: ع	`
14.	: ص	Sh	29.	: ي	Y
15.	: ص : ض	Dh			

Long Vowels (Madd) and Diphthong:

1. Long Fat <u>h</u> ah	: Â/â	أو .4	: Au
-------------------------	-------	-------	------

- 2. Long Kasrah : Î/î 5. أي : Ai
- 3. Long Dhammah $: \hat{U}/\hat{u}$

Abbreviations:

- 1. SRN : Student Registration Number
- 2. ORN : Official Registration Number
- 3. n.d. : No Date
- 4. n.p. : No Place
- 5. n.p. : No Publisher

ΜΟΤΤΟ

Live a life like water, people admire its graceful, grateful for its existence, and fear of losing it.

We made from water every living thing. Will they not then believe?

(Q.S. al-Anbiyâ'/21: 30)

TABLE OF CONTENTS

COVER PAGE	
	i
INTELLECTUAL	PROPERTY STATEMENTii
APPROVAL SHE	ETiii
VALIDATION	iv
	V
	CMENT vi
TRANSLITERAT	ION TABLE AND ABBREVIATIONS viii
	X
TABLE OF CONT	`ENTS xi
CHAPTER I	INTRODUCTION
	A. Research Background1
	B. Problem Statement
	C. Research Purpose
	D. Research Significance7
	E. Operational Definition7
	F. Previous Research
	G. Research Methodology11
	H. Writing Structure
CHAPTER II	THE CONCEPT OF WATER IN THE QUR'AN AND SCIENCEA. Definition of Water14B. Characteristics of Water15C. Types of Water19D. Water Verses in the Qur'an20E. The Function of Water in the Qur'an and Science Perspective251. Water as Origin of Life252. Earth's Temperature Stabilizer273. Water in the Human Body Metabolism284. Water as a Means of Transportation285. Water as an Energy Generator296. Water as an Economic Driver29
CHAPTER III	 WATER CRISIS IN THE QUR'AN AND SCIENCE A. Water Quality Criteria

CHAPTER IV	WATER CRISIS SOLUTIONS IN THE QUR'AN AND
	SCIENCE
	A. Water Quantity Crisis Solutions48
	1. Optimization of Water Management48
	a. Water Saving
	b. Making Waterways (Drainage)54
	2. Even Water Distribution
	a. Water Distribution Reservoir
	b. Prohibition of Water Privatization
	(Remunicipalisation)61
	B. Water Quality Crisis Solutions64
	1. Reforestation
	2. Watersheds Conservation67
	3. Water Pollution Control70
	4. Biopore Infiltration Holes72
	5. Rainwater Harvesting75
CHAPTER V	CLOSURE
	A. Conclusions
	B. Suggestions
	Y
CURRICULUM	VITAE