Constructed Wetland as an Endeavour to Protect the Environment: Study of Takhrij and Syarah Hadith

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Abstract

This study purpose to discuss the hadith about the Contrusted Wetland. This study uses a qualitative approach by applying the descriptive-analytical method. The formal object of this research is the science of hadith, while the material object is the hadith about the Contrusted Wetland in the history of Darimi No. 651. The results and discussion of this study indicate that the status of quality hadith hasan li ghairihi that meets the qualifications of maqbul ma’mul bih for practicing Islam. This study concludes that the Hadith of Darimi No. 651 is relevant to be used as inspiration for the development of the Contrusted Wetland in the form of inclusive, human-centered technology.

Keyword: Contrusted Wetland; Hadith; Sharah; Takhrij

Introduction

Indonesia has many nicknames in the eyes of the world. One of those nicknames is "Indonesia is the lungs of the world" because it has a very wide and dense tropical forest that produces the most oxygen (Laksono, 2022). Not only that, based on Decree of the Minister of Environment and Forestry Number SK.533/MENLHK/PSKL/PSL.3/5/2022 dated 30 May 2022, about the 2022 Kalpataru Award Recipients, that there were 10 people who received the Kalpataru Award in various regions. However, Indonesia still needs to pay attention to other areas where environmental pollution still exists. There are lots of people out there who still throw garbage or household waste carelessly (Putra et al., 2021). This can affect environmental pollution such as river water pollution, decreased oxygen levels, reduce the level of health for others, and so forth (Kadarusman et al., 2022). Therefore, This research is interested in being discussed as an effort to protect the environment, especially the discussion of the hadith about the Contrusted Wetland.
The results of previous research have been presented by a number of researchers related to the Constructed Wetland. Such as Sahroni and Iqbal (2022), “Performance Analysis of the Constructed Wetland Method in Household Wastewater Treatment,” Islamic University of Malang. This study aims to discuss the working analysis of the Constructed Wetland method in household wastewater treatment. This research method by conducting research on domestic waste, effectiveness of water bamboo plants and water reeds, as well as calculating the BOD parameters, COD, Nitrate, Phosphate and pH according to Quality Standards. The results and discussion of this study include a working analysis of the Constructed Wetland method and household wastewater treatment. This study concluded that after being processed using the Constructed Wetland method and using water bamboo plants and water reeds, then proceed with research on wastewater for 15 days. Then, found an increase in pH = 7-8 and reduction of COD = 10,94 mg/l, reduction of BOD = 4,61 mg/l, reduction of Phosphate = 1,358 mg/l, increase of Nitrate = 38,07 mg/l. From the results above it can be seen the results of the presentation of COD reduction = 83,67%, reduction of BOD = 92,83%, reduction of Phosphate = 37,33%, and increase of Nitrate = 88,78%. Waste water after processing can be used again for hand washing water and others (Sahroni & Iqbal, 2022).

The current research and the results of previous studies have something in common, namely discussing the Constructed Wetland. However, there are differences between the current research and previous research. Previous research discussed the Constructed Wetland from a scientific perspective, while the current research discusses the Constructed Wetland according to hadith.

Framework of thinking needs to be developed to answer the question of how the hadith regarding Constructed Wetland. The word "Constructed Wetland" or artificial wetlands is a planned or controlled treatment system designed using natural processes. This process involves vegetation, media and microorganisms to treat wastewater (Risnawati & Damanhuri, 2009). Treatment system that is planned, such as for waste discharge, organic load, media depth, other types of plants, so that the quality of wastewater that comes out of the system can be controlled according to what the maker wants (Athif, 2016). The concept of Constructed Wetland in Islam can be understood based on hadith. Hadith is anything that originates from the Prophet Muhammad Saw., whether it is spread in hadith books or actualized in society, which is known as sunnah (Soetari, 1994). Hadith about the Constructed Wetland is very abundant. Such as, the hadith of Darimi No. 651, the Prophet Saw. said, “Cleanliness is half faith, and (saying) Alhamdulillah fills the scales, and (the sentence) Laa Ilaaha Illallahu Wa Allahu Akbar both filled the heavens...
and the earth, prayer is light, charity evidence, wudu is ray, and the Qur'an can be a proof against you or an argument against you, all humans wake up in the morning, then sell themselves, until he frees himself or destroys him” (Saltanera, 2015). The discussion of hadith on Constructed Wetland is a field of study of hadith science. The science of hadith is the science of hadith (Soetari, 1994). Hadith about Constructed Wetland can be explained through the science of hadith regarding the status, understanding, and practice of hadith (Darmalaksana, 2018). Based on this discussion of hadith science, it can be concluded how Constructed Wetland is according to hadith.

The theoretical foundation is needed for the theoretical foundation in conducting the discussion. This study applies the theory of hadith science. In the science of hadith there is the science of dirayah hadith (Soetari, 2005), namely science whose material object is rawi, sanad, and matan hadith. Rawi is a hadith narrator, sanad is the chain of hadith narrators, matan the hadith text (Darmalaksana, 2018). The science of hadith determines the validity (authenticity) requirements of a hadith, namely: Rawi must ‘adl (have commendable personality qualities) and dhabit (have sufficient scientific capacity) and tsiqah (have unquestionable integrity) namely the combination of ‘adl and dhabit; Sanad must be connected (mustahil) in the sense of being unbreakable (munfashil); and Matan can't be inelegant (syadz) and no defects (‘illat) (Darmalaksana, 2020b). If it meets all the authentication requirements, then the status of the hadith is shahih, whereas if it does not fulfill one of these conditions then the quality of the hadith is dhaif (Darmalaksana, 2020b). According to hadith, hadith shahih characteristic maqbul (diterima), while the hadith dhaif characteristic mardud (rejected) (Soetari, 2005). However, hadith dhaif can level up to hasan li ghairihi if there is syahid and mutabi (Soetari, 2015). Syahid is matan another hadith, whereas mutabi is sanad another hadith (Mardiana & Darmalaksana, 2020). Nevertheless, not every maqbul hadith can be practiced (ma’mul bih), in the sense that there is a category of maqbul hadith but cannot be practiced (ghair ma’mul bih) (Soetari, 2005), this depends on context in the sense of situation and condition.

The main problem of this research is that there is a Constructed Wetland as an endeavour to protect the environment. The formulation of the research problem is how Constructed Wetland is an endeavour to protect the environment. This study purpose to discuss the hadith about Constructed Wetland as an endeavour to protect the environment. Practically, this research is expected to be useful as a development of the Constructed Wetland according to hadith inspiration.
Research Method

This study uses a qualitative approach by applying a descriptive-analytical method (UIN Sunan Gunung Djati Bandung, 2020). This type of research data is qualitative data that is not a number. Sources of research data include primary sources and secondary sources. The primary data source is the Encyclopedia of Hadith Book 9 of Imams (Saltanera, 2015). While secondary data sources are literature related to the topic of this research which comes from journal articles, books, and others. Data collection techniques were carried out through library research. Data analysis techniques are taken through the stages of inventory, classification, and interpretation (Darmalaksana, 2022). In particular, the descriptive-analytical method in this study was taken from the field of hadith science, especially the takhrij hadith method and the hadith syarah method. Takhrij hadith is the process of taking hadith from the book of hadith to examine its authenticity (Darmalaksana, 2020b). While syarah hadith is an explanation of the hadith matan (text) to obtain an understanding (Soetari, 2015). Finally, the interpretation at the analysis stage will use logic, both deductive logic and inductive logic (Sari, 2017), until a conclusion is drawn.

Result and Discussion

1. Result

The stages of takhrij hadith require the issuing of hadith from the hadith book which is then examined for its validity. After tracing the hadith with the keyword "cleanliness" in the Encyclopedia of Hadith Book 9 of Imams, Darimi's hadith No. 651. As for the editorial text of the hadith below:

"Has informed us Muslim bin Ibrahim, has told us Aban Ibn Yazid, has told us Yahya bin Abu Katsir from Zaid from Abu Salam from Abu Malik al-Asy'ari Prophet Muhammad SAW said "Cleanliness is half faith, and (saying) Alhamdulillah fills the scales, and (the sentence) Laa Ilaaha Illallahu Wa Allahu Akbar both filled the heavens and the earth, prayer is light, charity evidence, wudu is ray, and the Qur'an can be a proof against you or an argument against you, all humans wake up in the morning, then"
sell themselves, until he frees himself or destroys him” (H.R. Darimi No. 651).

The next stage, the assessment of the rawi and the continuity of the sanad is as shown in the table below:

**Table 1. List of Rawi and Sanad**

<table>
<thead>
<tr>
<th>No.</th>
<th>Rawi-Sanad</th>
<th>Birth/Death</th>
<th>Country</th>
<th>Kuniyah</th>
<th>Scholar’s comments</th>
<th>Circles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abu Malik</td>
<td>B: 18 H</td>
<td>Syam</td>
<td>Abu Malik</td>
<td>Ibn Hajar al-Asqalani: Friend; Adz-Dzahabi: Friend</td>
<td>Sahabat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Al-’Ajli: Tsiqah; Ibnu Hibban: Mentioned in ‘ats-Tsiqaat; Ibnu Hajar al-Asqalani: Tsiqah</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Zaid bin Sallam bin Abi Salam Mamthur</td>
<td>B: 132 H</td>
<td>Syam</td>
<td></td>
<td>Ya’kub Ibn Syaibah: Tsiqah; An-Nasai: Tsiqah; Ad-Daruquthni: Tsiqah; Ad-Dzahabi: Tsiqah; Tsiqah; Ibnu Hajar al-Asqalani: Tsiqah; Ibnu Hajar al-Asqalani: Tsiqah; Ibnu Hajar al-Asqalani: Tsiqah</td>
<td>Tabi’in (no see friend)</td>
</tr>
<tr>
<td>4</td>
<td>Yahya bin Abi Katsir Shalih</td>
<td>B: 132 H</td>
<td>Yamama h</td>
<td>Abu Nashr</td>
<td>Al-‘Ajli: Tsiqah; Abu Hatim: Tsiqah; Ibnu</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Date</th>
<th>Location</th>
<th>Father</th>
<th>Opinion</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Aban bin</td>
<td>160</td>
<td>Bashrah</td>
<td>Abu Yazid</td>
<td>Hibban: Mentioned in 'ats-Tsiqat; Ibnu Hajar al-Asqalani: Tsiqah tsabat, Adz-Dzahabi: A figure</td>
<td>Tabi’in ordinary people</td>
</tr>
<tr>
<td></td>
<td>Yazid</td>
<td></td>
<td></td>
<td></td>
<td>Ahmad bin Hambal: Strong in every masyayikh; Yahya bin Ma‘in: Tsiqah; An-Nasa‘i: Tsiqah; Ibnu Madini: We think he is tsiqah; Al-‘Ajli: Tsiqah; Ibnu ‘Adi: My hope he is ahlu shidqi; Ibnu Hibban: Mentioned in ‘ats-Tsiqat; Ibnu Hajar al-Asqalani: Tsiqah; Adz-Dzahabi: Tsabt</td>
<td>Tabi’ut tabiin old people</td>
</tr>
<tr>
<td>6</td>
<td>Muslim</td>
<td>222</td>
<td>Bashrah</td>
<td>‘Amru</td>
<td>Yahya bin Ma‘in: Tsiqah ma‘mun; Abu Hatim: Tsiqah shaduuq; Ibnu Sa‘d: Tsiqah; Ibnu Hibban: Mentioned in ‘ats-Tsiqat; Ibnu</td>
<td>Tabi’in ordinary people</td>
</tr>
<tr>
<td></td>
<td>bin Ibrahim</td>
<td></td>
<td></td>
<td>‘Amru</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

40
Table 1 shows that Darimi's hadith No. 651 narrated by Seven narrators. All narrators are only known to have died, except for Mamthur and Zaid bin Sallam bin Abi Salam Mamthur the year of death is not known. Meanwhile, the complete biography of al-Darimi, mukharrij al-hadits, is known, namely he was born in 181 H. and died in 255 H. Ulama's gave positive comments to the narrators. It's just that Ibn Jauzi included Aban bin Yazid in the book al-Dlu'afa.

According to the theory of hadith, the first rawi means the last sanad and the first sanad means the last rawi (Soetari, 2015). The hadith above includes muttashil (to be continued) seen from the continuation of the sanad. The condition for the continuation of the sanad is liqa (meeting) between the teacher and the student (Soetari, 2015). Liqa can be seen from their contemporary existence, profession, and being in the same area. Seen from the country, they are in adjacent areas, even though Aban bin Yazid and Muslim bin Ibrahim are from Bashrah. Teachers and students can be said to be contemporaries even though most of them don't know their birth year. According to the theory of hadith science, the hadith narrators can be assumed to be around 90 years old (Darmalaksana, 2020b). So it is predicted that the narrators in the sanad of transmission are likely to meet between teachers and students. Matan hadith above is not odd in the sense that it does not conflict with the Qur'an, the hadith is stronger and makes sense, while it is not defective in the sense that there are no insertions, omissions or changes. (Soetari, 2015). Although not in the same lafadz form, the hadith narrated by Darimi No. 651 is supported by other hadith content, namely Muslim No. 328, Tirmidhi No. 3439, and others (Saltanera, 2015). In other words, the hadith has syahid and mutabi.
Hadith narrated by Darimi No. 651 was originally dhaif because it did not meet the requirements of shahih. Because Aban bin Yazid is mentioned in the book al-Dulu‘afa. However, this hadith has syahid and mutabi so that his degree rises to hasan li ghairihi. Like shahih hadith, hasan hadith are accepted as proof of Islamic practice.

2. Discussion

Hadith narrated by Darimi No. 651 is maqbul in the sense that it is accepted as a proposition. According to the theory of hadith science, not all maqbul hadith have the qualifications maqbul bih, depending on the situation and conditions (Soetari, 2005). However, this hadith related to environmental preservation is maqbul bih, because environmental preservation is a necessity, especially in this day and age where the earth has suffered a lot of damage (Kadarusman et al., 2022).

The syarah of the hadith has been put forward by a number of experts. Hadith narrated by Darimi No. 651 turns out to be one lafadz with the hadith narrated by Muslim No. 328 (Kadarusman et al., 2022), even equivalent to other hadith (Agustina, 2021). The content that can be taken from this hadith is that Allah really loves cleanliness, beauty, and holiness. This hadith shows that one's faith will be complete if one can maintain cleanliness (Agustina, 2021). Allah SWT reminds people to always maintain cleanliness. A clean life can include physical and spiritual, physical and mental health, strong faith and devotion, commendable behavior and a comfortable and pleasant environment (Masrifah, 2013). A series of hadiths like this also indirectly imply that maintaining cleanliness is as important and important as the virtues of remembrance, prayer, almsgiving, and patience (Agustina, 2021). According to ulama, keeping the environment clean is one of the branches of faith because keeping the environment clean is a form of implementing a Muslim's gratitude for the blessings that have been given by Allah Swt (Soleha et al., 2021). Not only that, to strengthen the hadith above it is also recorded in Q.S al-A’la verse 14 which means: “Really lucky is the one who purifies himself (with faith).” The main factor for creating health is a clean way of life (Rahmah, 2017). So important is cleanliness for human life that Allah also gives His love to people who always maintain cleanliness and the environment (Jazariyah, 2019).

This hadith can also be explained scientifically. Protecting the surrounding environment, starting from clean water, clean soil, clean air, and others, is one of the most important things (Putra et al., 2021). If the environment is not maintained then pollution will occur everywhere. The impact of this pollution will greatly hamper our growth and development as humans in the process of survival (Kadarusman et al., 2022). The
necessity of protecting the environment includes cleaning gutters so that they are not clogged with garbage, carrying out the 3M steps (Closing the water storage area, draining the bathtub regularly, Burying used goods), and also applying 3B (Dispose of trash in the space provided, Clean everything that is dirty, Get used to living healthy and clean) (Senen et al., 2022). In 2020, the Indonesian government also explained through the Law on waste management that the government prohibits burning waste that does not comply with the technical requirements for waste management as stated in Chapter X article 29 concerning the Law. Therefore, good waste management is through reuse, reduce, recycle (Sriagustini & Nurazijah, 2022).

Results of previous research conducted by Sahroni and Iqbal (2022) stated that, Construsted Wetland is one of the efforts to protect the environment, especially in the treatment of domestic waste (Sahroni & Iqbal, 2022). Construsted Wetland is a science development tool that is used to keep water clean by managing waste. Construsted Wetland or artificial wetlands are planned or controlled treatment systems designed using natural processes. This process involves vegetation, media and microorganisms to treat wastewater. Wastewater treatment with the Construsted Wetland system is more recommended because it can manage domestic agricultural waste and industrial waste including heavy metals. Management efficiency is also high, around 80%. In low cost planning, operating and maintenance, and does not require high skills (Tangahu & Warmadewanthi, 2001). The advantages of using Construsted Wetland as an alternative to domestic wastewater treatment are appropriate technology that is inexpensive, durable and easy to maintain, does not require high operational costs, uses existing natural resources, can be filled with local plant diversity, provides ecosystem for plants and animals (Athif, 2016).

Based on the explanation above, it is clear that the hadith narrated by Darimi No. 651 is not only maqbul, but ma'mul bih. This hadith can be an inspiration for design thinking (Darmalaksana, 2020a) in innovation and appropriate technology development such as Construsted Wetland. The Islamic holy texts, Al-Qur'an and Hadith, basically can be an inspiration for the development of science. Based on the inspiration of this Holy Text, it is hoped that a more up-to-date prototype of the Construsted Wetland will be created, not only to meet the challenges of the industrial revolution 4.0, but to meet the demands of society 5.0. The latter means the demands of creating a human-centered prototype of the Construsted Wetland. Where humans are not controlled by technology, but humans who control technology, in this context humans control the environment. Finally, creating a healthy living environment for human ecosystems around the world.
Conclusion
The results of the study show that the status of the shahih of the hadith narrated by Darimi No. 651 regarding Constructed Wetland is considered as hasan li ghairihi. The discussion of this study explains that the hadith narrated by Darimi No. 651 is maqbul ma'mul bih to be used as inspiration for the development of the Constructed Wetland in an endeavour to preserve the environment. Theoretically, this research is expected to have beneficial implications for increasing understanding of hadith. Practically, this research is expected to be useful as a development of the Constructed Wetland according to hadith inspiration. This research has limitations without conducting field studies, so this is an opportunity for further research by applying comprehensive hadith design thinking. This research recommends that science institutions develop a more efficient Constructed Wetland based on human-centered, inclusive technology.

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