



PROBLEM AND SOLUTION REGARDING WASTE IN THE PERSPECTIVE OF AL QUR'AN AND ITS IMPLEMENTATION IN SDG'S

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Abstract

Waste problem is steadily increasing by year. The total amount of waste in some provinces in Indonesia always shows significant increase. Based on the data from Ministry of Environment (2008), most of the waste was household waste. In more detailed information, the total waste consisted of 44.5% household waste, 20.5% waste from traditional markets, 9.3% waste from the road, 9.1% waste from public facilitations, 8,3% office waste, 3.5% industrial waste, and 4.8% others. From those data, only 69% of the waste was thrown into the FDS and only 7.15% was converted into other forms. Therefore, it is very important to educate the society about the importance of waste management. The problem of waste and its solution have been discussed in Al Qur'an, including the cause, the kind and place, the effects and the solution of the damage. Al Qur'an covers every aspects of life, even when it is not to be taken literally, because Al Qur'an was delivered in such poetic way it can be perceived in different ways that it will never be out of date till the end of time. Some verses discussing about waste and its solutions are (QS Ar-Rum (30):41,42), (QS Al-A'raaf (7): 56), (QS Al-Baqoroh (2): 60, 195, 222), QS Al-Maidah (5): 64), (QS Al-A'raaf (7): 74), (QS Al-A'raaf (7): 85), (QS: Al-Mulk Ayat: 3), (QS. Al-Qashash (28):77), (QS As-Syuara' (26):183), (QS. Al-Isra' (17): 27), (QS. Al-An'am (6):141), etc. This waste problem is a problem on many levels, therefore, it needs participations from every elements of the society to work together in some sort of commitment based on a consensus and its implementation strategies. Government, society, industry/CSR, education, personal and groups, should have one vision. Proper living and welfare of the population is one of the development goals in every country so that they can reach a safe, comfortable, and prosperous state.

Keyword: Solution ,Waste, Al-Qur'an, SDG's

PREFACE

Waste problem is steadily increasing by year. The total amount of waste in some provinces in Indonesia always shows significant increase. Based in the data from Ministry of Environment (2008), in 2000, the total amount of waste in Central Java was 8,74 ton, in 2001 it was 8,82 ton, in 2004 it was 8,89 ton, and it was 8,96 ton in 2006.

Most of the waste was organic waste. In big city, the organic waste can be up to 70% of total waste with 28% of it being nonliving waste and the remaining 2% being B3 waste. Most of the waste was thrown into some Final Disposal Site (FDS) and very little of it was converted into other forms. Only 69% of the residents threw their waste to the FDS. This



means that the other part of the city was managing their waste in other ways. Based on field observation, people manage their waste in some ways, e.g. to burn it, to throw it into a hole and bury it, to let it pile up around their house, and to throw it away in different places or into some rivers. Those ways were seen as easy and practical, other than free of charge.

Based on the data from Ministry of Environment (2008), most of the waste was household waste. In more detailed information, the total waste consisted of 44.5% household waste, 20.5% waste from traditional markets, 9.3% waste from the road, 9.1% waste from public facilitations, 8.3% office waste, 3.5% industrial waste, and 4.8% others. From those data, only 69% of the waste was thrown into the FDS and only 7.15% was converted into other forms. Therefore, it is very important to educate the society about the importance of waste management.

The problem of waste and its solution have been discussed in Al Qur'an, including the cause, the kind and place, the effects and the solution of the damage. Al Qur'an covers every aspects of life, even when it is not to be taken literally, because Al Qur'an was delivered in such poetic way it can be perceived in different ways that it will never be out of date till the end of time. Some verses discussing about waste and its solutions are (QS Ar-Rum (30):41,42), (QS Al-A'raaf (7): 56), (QS Al-Baqoroh (2): 60, 195, 222), QS Al-Maidah (5): 64), (QS Al-A'raaf (7): 74), (QS Al-A'raaf (7): 85), (QS: Al-Mulk Ayat: 3), (QS. Al-Qashash (28):77), (QS As-Syuara' (26):183), (QS. Al-Isra' (17): 27), (QS. Al-An'am (6):141), etc.

This waste problem is a problem on many levels, therefore, it needs participations from every elements of the society to work together in some sort of commitment based on a consensus and its implementation strategies. Government, society, industry/CSR, education, personal and groups, should have one vision. Proper living and welfare of the population is one of the development goals in every country so that they can reach a safe, comfortable, and prosperous state.

To realize those goals, on Millennium Summit of the United Nations (UN) in September 2000, as much as 189 countries represented by their country heads or government heads signed a declaration titled as Millenium Development Goals (MDGs). There were 8 goals in this MDGs, with the seventh being to ensure the environmental sustainability. This goal has four targets, which are (1) to to integrate the principles of sustainable development into country policies and programs, to reverse loss of environmental resources; (2) to reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss; (3) to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation; and (4) by 2020, to have achieved a significant improvement in the lives of at least 100 million slum-dwellers (Ataker, P. 2008).

As of September 25th 2015, UN has proclaimed and agreed to adopt the new global development agenda which was known as Sustainable Development Goals (SDGs). SDGs or also known as Global Goals was developed to succeed the MDGs. There were 17 goals as part of the new global agenda in sustainable development. The theme "Transforming Our World: the 2030 Agenda for Sustainable Development" aims to push the environmental progress in sustainable development forward and to handle important issues such as pollutions, food waste, climate change, illegal trading of wild animals, and sustainable production and consumption. In SDGs, those goals were based on the environment, starting from famine reduction to minimizing the gap in developing sustainable society around the world. It is important to have the participation from every relevant elements to reach those goals, especially the ones regarding environment.



RESEARCH METHODS

This research base literature review, which connects 3 interrelated parts, namely the waste problem, Al Qur'an commentary study related to waste issues and solutions, and analysis of objectives both on the MDGs and SDGs related to the environment. In addition, it was strengthened by field data found by the team.

DISCUSSION

a. Waste Issues

The problem of waste from year to year, shows that data is increasing. Waste from organic materials (plants, food, animals, etc.) and form anorganik materials like plastic, glass, iron, etc. waste organic occupies the highest percentage (60%), waste plastic (14%), followed by paper waste (9%), metal (4,3%), glass, wood and other materials (12.7%). There are around 65 million tons of garbage produced in Indonesia every day, around 15 million tons polluting ecosystems and the environment because they are not handled. Meanwhile, 7 percent of the waste is recycled and 69 percent of the waste ends up in the Final Disposal Site (TPA), (CNN Indonesia, 2018).

The waste produced is dominated by household waste and among them is food waste. household waste get percentage 44,5 % from total waste in Indonesia. waste produced reaches 1.12 kg / capita per day (Ministry of Environment, 2008a). food waste dominate 58% total household waste (Ministry of Environment, 2008b).

Data from the research on Sustainable Waste Indonesia (SWI) in the area of South Jakarta and Ambon City in 2017 provides data of 1.3 million tons per year, packaging plastic waste is not managed, and this has the potential to damage the ecosystem of the environment. The selection of the two cities assuming South Jakarta represented a large city and Ambon City represented a medium city. In South Jakarta 60% of urban waste is organic material, 14% plastic, 9% paper, 4.3% metal material, 12.7% various materials such as glass, wood etc.

Based on World Economic Forum (WEF) data, only 5% of recyclable plastic, 40% is disposed to landfill. Also convey that in 2050 the amount of plastic in the ocean is more than the number of fish. Based on the results of Jenna Jambeck research, which was written in the 2015 science journal, said that Indonesia was ranked second in the world's largest contributor to plastic waste. National Geographic at the end of 2017 said that the Brantas, Bengawan Solo, Serayu and Progo rivers are among the 20 dirtiest rivers in the world.

b. Problems and waste solutions in the perspective of the Al- Qur'an.

This waste problem has been predicted to occur in the Al-Qur'an. Waste is part of the environment. Understanding of the environment according to Law No. 32 of 2009 is the unity of space with all objects, power, circumstances, and living things, including humans and their behavior, which affects nature itself, the survival of life, and the welfare of humans and other living beings. Then there is the harmony of the environmental understanding adopted by the Indonesian government with the understanding of the environment in the Al-Qur'an.

The problem of waste that occurs in Indonesia is actually a problem of humanity throughout the world. If the amount of waste from time to time continues to increase, and has not shown good outreach, then what happens is a disaster for humans. this matter means the duty of our Caliphate as a human being to prosper the earth, and the function of Islam as rahmatan lil amin alamin has not been maximally carried out by humans, (Voice of renewal, 2018).

Discussion about waste problem and solution with not based on all verses of the Qur'an, but only studied a few verses, including:



- 1) QS Ar-Rum (30): 41. "There has been damage on land and in the sea due to the actions of human hands; Allah wants them to feel a portion of (the result of) their actions, so that they will return (to the right path) "
- 2) QS: Ar-Rum Verse: 42. "Say, ' Hold a journey on the earth and pay attention to the end of those who used to. 'Most of them are associates (Allah)."
- 3) QS Al-A'raaf (7): 56. "And do not do damage on the earth after (created) well. Pray for Him with fear and hope. Surely the mercy of Allah is very near to those who do good. "
- 4) QS Al-Baqoroh (2): 60. "... Eat and drink from sustenance (given) Allah, and do not do evil on earth by doing damage".
- 5) Surah Al-Maidah (5): 64. "" ... And they sought (to cause) damage on the earth. And Allah does not like those who do damage.
- 6) QS Al-A'raaf (7): 74. "... Then remember the blessings of Allah and do not cause damage on earth".
- 7) QS Al-A'raaf (7): 85. "... Complete the measure and scales, and do not harm anyone at all. Do not do damage to the earth after (being created) well. That is better for you if you are a believer.
- 8) *QS. Al-Baqarah [2]: 222. "... And do not drop yourself into destruction ...".*
- 9) *QS. AlQashash [28]: 77. "Do good (to others) as God have done good to you, and do not do damage on the (face) of the earth. Surely Allah does not like those who do damage "*
- 10) *QS al-Syuura '[26]: 183. "Do not harm human beings with their rights and do not run rampant on the face of the earth with make damage "*
- 11) *QS. Al-'Isra '[17]: 27. "Surely those spenders are brothers and sisters the devil and the shaitan are very disbelieving to God ...*
- 12) *QS. Al An'am [6]: 141. "... And do not overdo it. Really God does not like people who are over-exaggerated. "*
- 13)) Al-Mulk verse 3-4. "" Who has created seven heavens in layers. You do not look at the Merciful creation of something that is not balanced. Then look over and over, do you see something that is not balanced? "
- 14) QS. Al-A'raf verse 56. "" And do not cause damage on the earth, after (Allah) repairs it and pray to Him with fear (will not be accepted) and hope (will be granted). Surely the mercy of Allah is very near to those who do good. "
- 15) QS. Ar-Rum verses 41-42 .. "The damage on land and in the sea has been seen because of the deeds of the hands of men, so that God will feel for them some of their actions, so that they will return (to the right path)."
- 16) QS: al-Baqarah [2]: 22. "He is the one who made the earth a stretch for you and the sky as the roof, and He sent down water (rain) from the sky, then He produced with it all the fruits as rizki for you; Therefore do not make allies to Allah, even though you know.
- 17) (QS: al-Hijr [15]: 9-22). And We have spread the earth and made it to the mountains, and We have grown everything according to size. And We have made for you on earth the necessities of life, and (we also created) creatures that you are not the provider of sustenance to him. And nothing but Our side is its treasure; and We do not lower it but with a certain size. And We have blown the wind to marry (plants) and



We send down the rain from the sky, then We give you drink with that water, and you are not the one who keeps it "

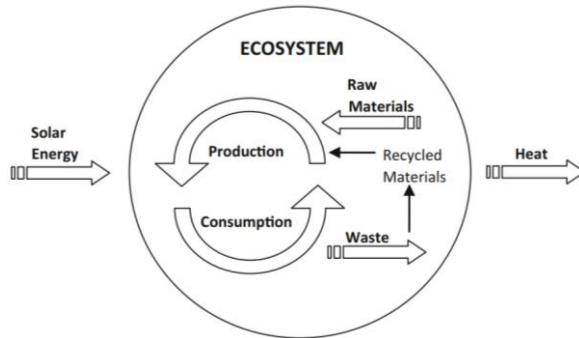
- 18) (Surah Al-Baqarah [2]: 30). And (remember) when your Lord said to the angels, "I want to make the caliphate on the earth." They said, "Do you want to make someone who destroys and sheds blood there, while we glorify You and purify Your name" . He said, "I really know what you do not know."
- 19) QS al-Syuara '[26]: 183) And look for what Allah has bestowed on you (happiness) in the Hereafter, and do not forget your portion of the world and do good (to others) as Allah has done good, unto you, and And do not harm men to their rights and do not run rampant on the face of the earth by making damage.

Every business in this life is in the Al- Qur'an. The way to understand it is not in the context of the words, sometimes with kias / parables, one words sometimes has many definition, every verse in Al Qur'an always Uptodate to long periode. between the main purpose Al Qur'an is: as a straight road guide, forming personality muslim to get balance, forming society muslim Qur'ani, guiding the Ummah in fighting kejahiliyahan. There are several explanations related to garbage at the Qur'an, namely:

- 1) The cause of the waste problem is the result of human actions themselves.
- 2) Damage occurs on land and at sea. Land is where humans work related to organic and organic matter. The sea is the source of fish's life. If there is pollution in the sea, the fish will die and there will be a lot of toxic waste in the sea. Now this sea is a simple and easy waste disposal. The sea becomes a medium that is harmful to fish and human life. If this problem is not addressed immediately, it becomes very possible if the number of fish in the sea is the same as the amount of garbage.
- 3) The earth is where humans live. If damage has occurred on earth, then human life will be disrupted. The air is no longer fresh, because there is a lot of pollution. If the soil has a lot of plastic, the soil pores will be covered by plastic, and the plant will not be able to grow properly, consequently the quality of the intake eaten by humans is reduced.
- 4) food and drink give disaster for human, if less quality. Including parts of food and beverages are packaging tools and equipment used. Nowadays food packaging is more directed towards practicality, such as packaging from plastic, paper, plastic spoons, food, cans, Styrofoam, glass / glass, etc., which are not environmentally friendly.
- 5) Perfecting the measurements and scales, it can be interpreted that the scales are balance. If damage to the earth occurs, it must be balanced with serious management. If not, there will be an imbalance. This is discussed and developed in the Law of Thermodynamics 1. For each process when the level Q is given to the system and system $\Delta U = Q - W$. This law states that the change in inner energy of a closed thermodynamic system is equal to the total amount of heat energy supplied into system and work done on the system.

Related with waste, Daly (1991b) has delivered "strong" sustainability activities, based on the ecological-economic framework, which states that services provided by nature cannot be replaced by services produced by humans or man-made capital. Daly (1991b) provides a system of opportunities that enable good development, production and consumption cycles in the macro system balance. The first principle of thermodynamics, Daly describes SSE as one of the birthplaces in place of death and

production replaces depreciation. The purpose of SSE is to maintain raw material (low entropy) and waste (high entropy) to the level in regenerative and assimilative capacities of macro systems.



picture steady-state economic view of production and consumption cycles in equilibrium the macrosystem, Adapted from Daly (1991b.p. 181)

- 6) Among God's blessings given to humans, is in the form of pleasure, can be in the form of food, drinks, clothes, etc. This pleasure can be a disaster if used excessively, and improperly.
- 7) In the letter Al Baqoroh verse 22, based on the rain cycle, the circus of the earth, electricity and rain fall. As a result of the acid can occur acid rain. As a result of this acid rain, it can cause respiratory problems, corrosion and damage to buildings. Acid rain is defined as all kinds of rain with a pH below 5.6. And the plants wither, dry and die. Damaging the perarian ecosystem, even causing fish to die.

Waste management has been delivered in the Qur'an, including:

- 1) That the whole process of life is worship.
- 2) In the letter of Al Insyirah verse 5, that life is a process, dynamic, and gives benefit.
- 3) Humans are expected to do good for themselves and the environment.
- 4) Humans are asked not to overdo it, even today it has begun to be called "Zero Waste".
- 5) Life is a balance, if a lot of waste occurs then management must be balanced immediately, as stated by law 1 Thermodynamics. If it is not balanced, then it must be immediately analyzed and an action taken so that it is balanced.
- 6) Human be forbidden to make damage in this world, land, sea and required to keep and take care.
- 7) Keep and caring for those created by God. Maintaining natural conditions, natural security,

MDGs and SDGs about Environment.

On Millennium Summit of the United Nations (UN) in September 2000, as much as 189 countries represented by their country heads or government heads signed a declaration titled as Millenium Development Goals (MDGs). There were 8 goals in this MDGs, with the seventh being to ensure the environmental sustainability. This goal has four targets, which are (1) to integrate the principles of sustainable development into country policies and programs, to reverse loss of environmental resources; (2) to reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss; (3) to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation; and (4) by



2020, to have achieved a significant improvement in the lives of at least 100 million slum-dwellers (Ataker, P. 2008).

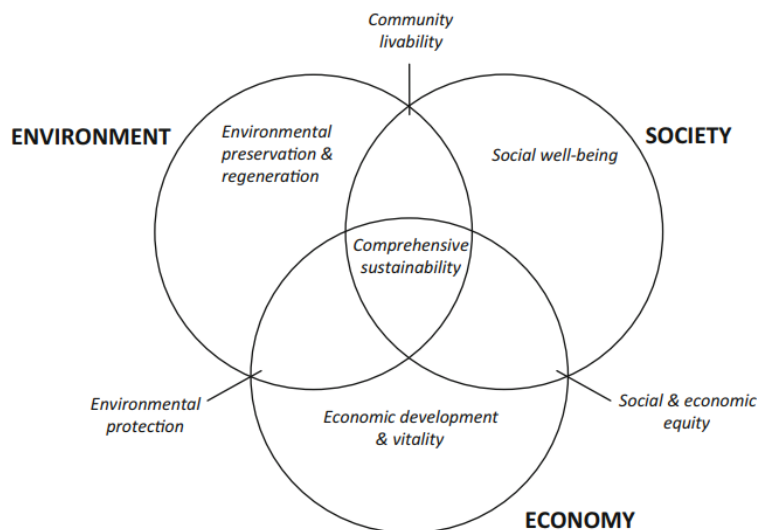
In 2015, MDGs was replaced by Sustainable Development Goals (SDGs). SDGs was officially in effect on September 25th 2015. UN has proclaimed and agreed to adopt the new global development agenda which was known as Sustainable Development Goals (SDGs). SDGs or also known as Global Goals was developed to succeed the MDGs. There were 17 goals as part of the new global agenda in sustainable development. The theme “Transforming Our World: the 2030 Agenda for Sustainable Development” aims to push the environmental progress in sustainable development forward and to handle important issues such as pollutions, food waste, climate change, illegal trading of wild animals, and sustainable production and consumption. In SDGs, **those goals were based on the environment**, starting from famine reduction to minimizing the gap in developing sustainable society around the world. It is important to have the participation from every relevant element to reach those goals, especially the ones regarding environment. The 5 areas with critical importance in SDGs were People, Planet, Prosperity, Peace, and Partnership. The 17 Goals of SDGs are:

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
3. Ensure healthy lives and promote well-being for all at all ages
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. Achieve gender equality and empower all women and girls
6. Ensure availability and sustainable management of water and sanitation for all
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
10. Reduce income inequality within and among countries
11. Make cities and human settlements inclusive, safe, resilient, and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

SDGs Strategies regarding Environment

SDGs is implemented in both developed and developing countries. SDGs is to be integrated and interconnected in every dimension of society, economy, and environment,

should benefit all especially the susceptible, and the implementation should involve every stakeholders. The connection between the dimensions of society, economy, and environment is shown by Picture 2.



Picture 2. Comprehensive sustainable development.

Sources: Adapted from CST (1997, p.2) and Brodmann and Spillmann (2000,p.8)

Sahil, j. dkk (2016), defined an achievement strategy with prevention model which consists of 15 items involving every target elements : consumer society, practitioners, sellers, producers, government, and academicians. The activities include both preventive and curative activities, from upstream to downstream, starting with socialization, training, funding, guidance, up to monitoring and evaluation. The conclusions of the article are: 1) the waste disposal patterns in Ternate City still using direct individual method, indirect individual method, and direct communal method; 2) some obstacles affecting the waste disposal system in Dufa-Dufa Village are the density and distribution of the population, physical characteristics of the environment and social economy, culture, and the attitude and behavior of the society; 3) waste disposal model in Ternate City should involve various components of stakeholders and take notice to the waste characteristics, the urban characteristics, and the social-culture of the nearby population.

From the research, there were some recommendations, such as recommendations and target to improve the waste disposal system according to the laws, improvements for infrastructures including necessary facilities, waste disposal site repair, compost maker construction, and collecting center for recycling, (Ginige, T., dkk, (2010), Olowu, D. 2012). Therefore it is necessary to:

1. Create Constitution Eco Contribution Act,
2. Introducing tax on various products aimed at raising awareness of the costs associated with producing waste management and create incentives for more sustainable consumption
3. Lower VAT rates on used products or repair service, as defined in UU VAT, 1998 Schedule Eight, implemented by looking at promoting reuse in consumption.



4. Provide waste disposal facilities for recycling paper and plastics to promote recycled products and living cycle in various consumption activities.
5. Involve the society in implementing UU about waste, explain to the society, collaborate with various segments, about the importance of sustainable waste management, minimizing greenhouse gas emission, and stopping the loss of biodiversity.
6. Electronic waste pollution needs very serious handlers. waste electronic in this world is produced all over the world every year, estimated 20 to 50 million metrics tons electronic. in United States of America throw waste electronic around fourteen to 20 million personal computers every year, while Asia throw around twelve million tons of electronic waste every year. with increased, urbanization, capacity, economic growth, and lifestyle orientation, it is anticipated that developing countries will double their electronic waste production over the next few years.

CONCLUSION.

1. The problem of waste from year to year tends to increase. Therefore it must be resolved on an ongoing basis, involving many elements.
2. Problems and solutions related to waste, every can find is in the Al- Qur'an. Analysis waste in Al-Qur'an, The way to understand it is not in the context of the words, sometimes with kias / parables, one words sometimes has many definition, every verse in Al Qur'an always Update to long period.
3. Waste problem is the problem of all human in the world, so it is the world's responsibility to overcome it. Through SDGs as a replacement for MDGs. At MDGs there is one purpose related to the environment, being in the SDGs, the underlying environment of each of these goals, starting from eliminating hunger to reduce the gap in building sustainable societies around the world. In SDGs there are 17 goals, and environments go on the 17th goal.

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