

Islam, Local Knowledge and Preservation of Land

(A Case Study in Cijambu Village, Tanjungsari-Sumedang)

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Abstract—The environmental problem faced by humanity cannot be separated from habitual tradition (sunnatullah) which has the natural phenomenon. Human as a leader (khalifah) on the earth should carry out good deeds and keep away from corrupt deeds. The environmental damage is generally caused by human actions, such as the use of technology with excessive chemical is proven which causes degradation. Basically, local people already have the knowledge related to the preservation of the land, as in the case of the people of Cijambu Village Tanjungsari-Sumedang who mostly work as farmers, so that they depend on the productivity of the land. This study aims to dig the insight of the preservation of the soil environment in Islamic perspective and the integration of people local knowledge in Cijambu Village. This study used the qualitative method by structural interviews. The result of the study showed that the local people of Cijambu Village in preserving the environment is not Islamic doctrine influence but it is caused by local influence which has been a heritage ancestral tradition.

Keywords— *Islam; Land; Local knowledge; Preservation*

I. INTRODUCTION

The soil is an essential ingredient for the growth and development of plants since the soil is the main medium for the survival of plants. Soil productivity is determined by the nutrient content in it, so the soil contents will have a significant effect on the growth and management of the land in the cultivation.

The Qur'an states that Adam AS and man were created from the ground (Qur'an Surah Ali Imran verse 59), then they proliferate (Qur'an Surat Ar-Rum verse 20). Living things on earth consisting of humans, animals, plants and other organisms cannot be separated from the elements of the soil.

In line with government programs, namely Sustainable Development Goals in its efforts to preserve the environment that includes; improving land, protecting, restoring and enhancing the sustainability of terrestrial ecosystems, sustainably managing forests, reducing barren land, halting and restoring land degradation, and halting biodiversity losses. Environmental damage on land is one of them is the practice of land management and improper land development can lead to the occurrence of soil degradation and melting of organic materials. Therefore, land management cannot be separated

from the participation of the community in preserving and improving the land to be productive.

Regarding the environmental damage of Allah SWT has said in the Qur'an Surat Ar-Rum verse 41: *Corruption has appeared throughout the land and sea by (reason of) what the hands of people have earned so He may let them taste part of (the consequence of) what they have done that perhaps they will return (to righteousness).*

The use of technology that stimulates plants for high production by relying on chemicals proved to cause soil degradation and environmental damage. The resulting product contains toxic ingredients of follow-up or residual fertilizer that negatively affect the environment. One effort to reduce land degradation is to apply modern organic farming systems by utilizing biological fertilizers to play a more effective role in increasing production and environmentally friendly.

Based on a survey of Cijambu Village, Tanjungsari Sub-district, Sumedang Regency, the description of the majority of the community works as a farmer. The community already has local knowledge of ecology, agriculture and forestry that is generating slowly from their ancestors and evolves over time. The experience of the local community is the experience of farming and gardening and interacting with the environment. Cijambu village farmers have an understanding of the ecological processes associated with the cultivation of agricultural land.

II. MATERIALS AND METHODS

The method used in this study is qualitative based on ethnoecological approach [1]. The materials used in this study were interviews of respondents and research documentation. Interview respondents use interview guides that have been made to facilitate the interview process that will be done. Interview technique which is conducted in this research is in the form of a semi-structured interview by interviewing some competent informants who are believed to be able to provide information and answers needed in the research. The selected informant is a person who has extensive knowledge and ability regarding agriculture and land conservation in Cijambu Village. The informants are community leaders, farmers and the community who often work in cultivating cultivation in Cijambu Village.

III. RESULTS AND DISCUSSION

A. Profile of Desa Cijambu Sumedang

Cijambu Village is a village located in Tanjungsari Sub-district of Sumedang Regency. Its location is located at the northern end of Tanjungsari subdistrict and directly adjacent to Subang Regency and Rancakalong Subdistrict at the height of Cijambu mountain foot, northeast of Manglayang Mountain. Not surprisingly, it makes Cijambu Village as the furthest village from the central government of Tanjungsari sub-district.

Based on data from Tanjungsari Sub-district in Figures 2014, Cijambu Village has a total area of 200,9 hectares. From the area is divided into several designations such as agricultural land, settlement and yard and other uses. The land area used as agricultural land is 158 hectares. Agricultural land is divided into two types namely wetland farms in the form of rice fields and dry farm fields in the form of fields, human and plantations.

With regard to their livelihood, as the data presented by Tanjungsari Sub-district in Figures 2014, the majority of Cijambu's population work in the agricultural sector. By covering the altitude at the foot of Mount Cijambu, Cijambu Village area as a fertile land both as land and plantation fields. The field of rice fields in Cijambu village is supported by water sources that are sourced from mountain springs passing through rivers, especially Ciherang river. So also with plantations or fields planted with various types of vegetables. Not surprisingly, the people of Cijambu Village generally work in this sector either as farmers or farm laborers [2].

Agricultural produce produced by agricultural land in Cijambu Village are rice and various types of crops such as corn, cassava, peanut and sweet potato. Then the results of the plantation of fruits of the type of avocado, durian, guava water, guava, orange, sawo, rambutan, soursop, melinjo, petai, papaya, banana, jackfruit, mango and coffee. The results of vegetables are the leek, potato, cabbage, pouch, bean, chili, tomato, watercress, mustard, sauce, cabbage, cucumber, red pepper, cayenne pepper, beans, red beans, squash and eggplant.

B. Local Community Knowledge of Land Conservation in Cijambu Village

In an effort to address improper land management as well as to increase land productivity, Cijambu Village Community has local knowledge in soil conservation techniques although its nature is still simple. This relates to local knowledge and culture in the opinion of Toledo [3] that in general the reciprocal relations of villagers with their natural resources and environment are constituted by a complex system called *corpus-cosmospraxis*. In other words, according to Iskandar [4], local practices of people (*praxis*) in managing and utilizing natural resources are usually strongly based on their belief system (*cosmos*) and their knowledge/ cognitive (*corvus*) systems. So, even though the formal education level of the inhabitants of Cijambu Village is low, but in terms of experience and ecological wisdom based on local knowledge and culture, they are quite 'educated'.

Local people argue that organic farming using manure or leaf residue has advantages and disadvantages compared to using chemical fertilizers. The local knowledge of the descendants of the ancestors provides an important understanding of the sustainability of agricultural processes in Cijambu village.

TABLE I. DIFFERENCES IN USE OF CHEMICAL FERTILIZER AND MANURE (ORGANIC) ACCORDING TO CIJAMBU VILLAGE COMMUNITY

No.	Category	Chemical Fertilizer	Manure (Organic)
1	Harvest Period	Fast	Slow
2	Indication of land	Downsized (Bad)	Fertile
3	Yields	80%-100%	50%-60%

(Results of Interview with Cijambu Society, 2017)

Localized ecological knowledge of the community, presents an example of farmers' knowledge of the various components in their farming systems. In addition to local ecological knowledge based on experience and personal observation, farmers also learn from the environment, as well as from outside parties. Although they already have a good understanding of the causal relationships in soil processing, they do not always practice the conservation techniques. Limited capital and labor and lack of community support cannot deliver tangible results [5].

In an effort to defend natural resources and seek harmony with nature, humans develop a certain knowledge system that leads to the formation of land management patterns accompanied by various conservation efforts [6]; [7]; [8].

TABLE II. TERMS OF SOIL PROCESSING OF CIJAMBU VILLAGERS IN SUPPORTING SOIL CONSERVATION

No	Term	Definition
1	<i>Nyacar</i>	Cutting down the disturbing grass on the farmland
2	<i>Ngareungeus</i>	Collecting leaves and twigs dry, which will then be burned and the rest of the burning will be fertilizer (done in the dry season)
3	<i>Ngalaci</i>	Reverses the ground and grass, by making a hole for the grass to be composting and fertilizer (done in the rainy season)
4	<i>Ngaduruk</i>	The process of burning leaves and twigs that have not been used
5	<i>Cogek</i>	Holes for fertilizer by means of the hoe
6	<i>Ngaramas</i>	Weed grass around the plant

(Results of Interview with Cijambu Society, 2017)

C. The Islamic Concept of Land Conservation

In relation to human life on earth, Islam not only emphasizes the importance of human relations with God as God Creator of the universe and man in it, but also emphasizes the importance of human relationships with the environment. Not a few concepts of Islam that talk about the good environment is related to land, water, plants and animals.

Allah SWT has made man as khalifah on earth (Qur'an Surah Al-Baqarah verse 30) and made everything that is on earth for man (Qur'an Surah Al-Baqarah verse 29). This means that humans bear the mandate to manage the earth and all its contents, a task or work that must not only be carried out seriously but also be accountable to God as the Giver of the mandate. In other words, in managing the earth and everything in it human beings should not arbitrarily, but must be in accordance with the will and rules that have been set by Allah SWT [9].

Based on the quote of the above verse of the Qur'an then it should be human beings feel obliged to maintain, preserve, and preserve the earth and all that is in and on it. However, human activities have made various devastations on earth both land and sea (Qur'an Surat Ar-Rum verse 41), and only the hypocrites who make damages both to crops and livestock (Qur'an Surat Al -Baqarah verse 205).

Prophet Muhammad SAW is also very concerned about the preservation of nature. He states that planting a tree is a charity whose reward continues to flow until the Day of Judgment (H.R. Abu Daud). This shows that Islam is very concerned with human relationships with their environment, including preserving the land.

D. Farmer Adoption Process and Knowledge Transfer

Farmers develop new knowledge of the basic knowledge they already possess plus external input. If new innovations are introduced to farmers, they will conduct a series of simple research to test the effectiveness and benefits of the new innovation. From the results of their trial, then they make a decision whether to apply the new innovation or not. If the results are as they expected then they will adopt such knowledge [10].

The results of interviews with the local community of Cijambu Village, stated that the preservation of the soil is affected by the needs and supportive environment. This is in accordance with the opinion of one community, as follows:

Formerly in 1974 Cijambu area is the area of rice field, but because of the result that is not maximal so that there is a change of agriculture system to grow vegetables in line with the improvement of infrastructure in the form of road access that supports for marketing to the market (tanjungsari market and around Sumedang area). One of the people who initiated to develop vegetables was Pak Entis from Lembang-Bandung. Now the percentage of vegetable land reaches 60% from initially only 30%, then palawija 20%, grass for cattle feed 10%, rice field 10% and kebon tatangkalan 10%. This is influenced by the material needs of the people of Cijambu Village because vegetables give more beneficial results than rice crops. Besides the surrounding environment that supports, whether it's cold weather or land suitable for planting vegetables. In addition, the preservation of land in the Village

area Cijambu still use simple technology for generations by way of transfer of local knowledge from parents to their offspring. In contrast to the influence of the concept of Islam which is understood by the local community to keep the environment has no real effect on the preservation of the land in Cijambu Village, only limited to conceptual understanding [11].

IV. CONCLUSION

The results of the study indicate that the local community of Cijambu Village in preserving the land is not due to the influence of Islamic doctrine but rather due to local knowledge that has become a tradition of ancestral heritage.

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