

Externalities in Kampung Unggulan Kerupuk Surabaya, An Islamic Perspective

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Abstract.

This study examines how the externalities of Kampung Unggulan Kerupuk Surabaya are viewed from the Islamic Natural Resources and Environmental Economics. Kampung Unggulan Kerupuk Surabaya is a cracker industry located in the urban area but still using traditional methods in the production's process. This research uses descriptive study case method. The data collection which conducted in this study was by in-depth and direct interviews with research subjects. The analysis technique used in this study was by data reduction, data presentation, and conclusions and results from direct observation from the research's location. The result of the study shows that there are positive externalities of the existence of Kampung Unggulan Kerupuk Surabaya, such as employment opportunity, increased revenue, and facilities establishment. There are no negative externalities such as environmental pollution, and disruption of society's health. Environmental management is carried out properly in accordance with the principles of environmental management in Islamic perspective.

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I. Introduction

Indonesia is the largest archipelagic country in the world with the marine area covers 1.9 million square kilometers and stretches 5,000 kilometers from the west to the east. Huge ocean area in this country certainly has potential marine products that can be utilized for the growth of the Indonesian economy. According to Statistics Indonesia [1], there are about 7.87 million people or 25.14 percent of the local poor population depend on the sea for their livelihood [2].

In the city of Surabaya, marine fish and land fish production have great potential to be developed because the quantity produced increased every year. The production of marine fish is dominant in the Surabaya fisheries sector, around 8,118.93 tons,

followed by pond fish production with 6,915.03 tons in 2016.

Kampung Kerupuk Unggulan Surabaya is included as one of local district in Surabaya that targeted for community empowerment by Surabaya Office of Industry and Trade. It is located in Gunung Anyar, Tambak, Surabaya. The development of Kampung Kerupuk Unggulan Surabaya is coming from fish products around the area and local community use them to produce *kerupuk* (crackers). Variety of crackers produced by Kampung Unggulan's crackers craftsmen is diverse; including payus fish crackers, prawn crackers, clam crackers, milkfish crackers, and vegetable and fruit crackers. Residents of Gunung Anyar have been working as cracker craftsmen since 1980.

However, these craftsmen were unable to market their products and did not have the proper equipment and knowledge of production and marketing.

Since the establishment of Kampung Kerupuk Unggulan in 2010, crackers craftsmen began marketing their products by giving trademarks to their crackers. Not only that, their products already have brand certificates, halal certificate from Majelis Ulama Indonesia (MUI) and micro-scale trade business license certificates. The marketing of crackers also includes outside Surabaya and Java island. Marketing is also done through online platforms such as Line, WhatsApp, Instagram and Tokopedia.

The existence of industrial activities will surely have an impact on the industry's craftsmen and the surrounding community, both with various externalities indicators such as employment, increased income, facility construction, environmental pollution, and inconvenience among surrounding communities due to the cracker industry run by craftsmen from Kampung Kerupuk Unggulan Surabaya. Based on the background presented above, the research problem in this study is: "How are the Kampung Kerupuk Unggulan Surabaya externalities viewed from an Islamic natural resources and environmental economics?"

II. Literature Review

2.1. Natural Resources

Natural resources are elements of the environment which consist of biological and non-biological resources which together form an ecosystem unity [3]. According to Kusumawardani [4] natural resources are all objects obtained from the physical environment to fulfill human needs

and desires. Natural resources are classified as renewable natural resources (sunlight, land, wind), non-renewable natural resources (oil, natural gas, uranium), and potentially renewable natural resources (forest trees, groundwater deposit).

According to Utami [5], natural resources in Islam are defined as all forms of natural content which are gifts from Allah that can be exploited and processed to support human life and the needs of other creatures as well. Utilization of natural resources must be managed by considering environmental sustainability, which means utilization of natural resources is acceptable long as do not cause any environmental damages, as Allah has stated in *surah Al-A'rāf* verse 31:

"O children of Adam, take your adornment at every masjid, and eat and drink, but be not excessive. Indeed, He likes not those who commit excess."

2.2. Environmental Management

According to Law No. 32 on Environmental Protection and Management in 2009 [3], the environment is the unity of space with all objects, and living things, including humans and their behavior, which affects nature itself, the survival of life, and the welfare of humans and other living things. Based on Article 1 paragraph 2 of the same law, protection and management of the environment is a systematic and integrated effort carried out to preserve environmental functions and prevent pollution and environmental damage which includes planning, utilization, control, maintenance, supervision and law enforcement.

From Islamic point of view, Nasrullah, et al [6] mentioned several principles of Islamic

environmental management. *First, caliph* or vicegerency. As God's representative on earth, human beings must actively represent themselves as carers and guardians of nature [7,8]. This principle focuses on the application of the attitude of responsibility that must be carried out in every activity, especially in waste management.

Second, istislah (general benefit). General benefit is interpreted as one of the main pillars and also ultimate goal of Islam. The highest goal of protection and management of natural resources is benefit and prosperity (*maslahah*) for all beings. The application of *istislah* is expected to be the ultimate goal on implementation of activities related to the general public matters.

Third, amanah (trust). Amanah is a commitment between humans and God as the creator of the universe. God entrusts humans to manage nature. Therefore, humans must commit to safeguarding and preserving the earth.

Fourth, ecological balance. environment and nature are created by Allah and all creatures will interact and influence each other. If there are any resources exploited excessively, there will be adverse impact on other elements of nature and thus, they lose their balance. Humans are the ones who will suffer the most from any imbalances because any imbalances to nature will disrupt human survival. For this reason, the principle of ecological balance is needed to prevent any disturbance on earth's living ecosystem.

Fifth, sustainability. The Islamic ethics related to the protection and management of natural resources rests firmly on the idea of

caliph and guardianship. As guardians of nature, humans are obliged to maintain harmonious relations with nature by the principle of utilizing existing natural resources for the benefit of present and future generations.

2.3. Externality

The concept of externality first emerged from the economic principles put forward by Alfred Marshall about the declining supply curve from competitive industries [9]. Marshall said that externalities arise because a variable controlled by certain economic agent interferes with the function of other economic agents. There are two forms of externalities according to Mangkoesobroto [10]. *First, positive externalities.* Positive externalities are actions of someone who benefits others, but these benefits are not allocated in the market. If the activities of some people produce benefits for others and the person who receives these benefits does not pay or provide prices for these benefits, then the true value of those activities is not reflected in market activities. Examples are employment and job creation, increase in income as well as public facilities construction. *Second, negative externalities.* Negative externalities are costs imposed on other people outside the market system as a product of productive activities. Examples are environmental pollution and decline in health condition.

2.4. Industrialization

Based on Article 1 paragraph 2 of Act No. 3 of 2014 on Industry, industry is an economic activity that processes raw materials, semi-finished goods, and/or finished goods into goods of higher value

for their use, including design activities and industrial engineering. According to Nasir et al. [11] several aspects that must be considered related to the urgency of processing industrial waste products.

First, reduce. The principle of reduce is to minimize waste, especially the end result of the production process. However, it is not impossible that this stage can also be done early when selecting raw materials and the production process. This shows that all production processes are basically able to strive to produce minimum waste.

Second, reuse. The principle of reuse is an effort to reuse the waste produced during the production process. Utilization can be in the form of an advanced process or use for activities in other fields, such as animal feed or other uses.

Third, recycle. The principle of recycle is the recycling process of waste that has been produced so that it can be used for other purposes without reducing production. Understanding of recycle cannot be separated from the importance of optimizing all the final output of the production process, whether it is solid, liquid or gas waste.

III. Research Method

This research is a qualitative research conducted with case study method. According to Nasir [11], a case study is a study of the status of a research subject relating to a specific or typical phase of the overall personality. Yin [12] states that case studies are a more suitable strategy if the subject of a research question concerns how and why, if the researcher only has little opportunity to control the events that will be investigated, and when focused research

lies in contemporary phenomena in the real-life context.

3.1. Scope of Study

The subjects of this study were cracker craftsmen in Kampung Kerupuk Unggulan Surabaya. The object of research will be focused on the externalities of Kampung Kerupuk Unggulan Surabaya in the perspective of Islamic Natural Resources and Environmental Economics.

3.2. Types and Sources of Data

The data used in this study are primary data and secondary data. Primary data is data obtained by researchers from original sources (directly from informants) who have the information or data. Primary data were obtained from interviews and direct observations on cracker craftsmen and the surrounding communities of Kampung Kerupuk Unggulan Surabaya.

3.3. Data Collection

Data collection is conducted by using three methods. *First, interview.* Researchers use interview to explore the data in the subject of research deeply and the questions asked can be free and flexible but still must be relevant to the research. *Second, observation.* Observation method is a data collection technique that requires researchers to go to the field and observe matters related to the subject of research. However, the research should only observe the social interactions they create, both with fellow research subjects and with outsiders. *Third, documentation.* The document is a record of events that have passed. Documents can be understood as any written records relating to a past event, whether prepared or not prepared for a

study [13], in form of photos, notes, writings, or monumental works from someone [14].

3.4. Data Analysis

This research uses interactive data analysis techniques from Miles and Huberman. There are three steps of data analysis. *First*, data reduction, by summarizing and choosing the main and crucial things. Reduced data will provide a clear picture and make it easier for researchers to carry out further data collection. In this study, the results of interviews that were obtained from informants using record tools were then written in field notes. The data selected for selection is relevant to the research. *Second*, presentation of data, which aimed to facilitate understanding the results of research that can be described in narratives, charts, and the like. *Third*, conclusions and verification. Verification is the last step in this technique. After reducing and presenting the data, the researcher reviews the research findings and then reports the results of the study with new findings that have been formulated by the researcher.

IV. Results and Discussion

Kampung Kerupuk Unggulan Surabaya is located in the Gunung Anyar, Surabaya and one of government's local urban empowerment project since 2010. The community has been producing and selling crackers for generations since 1980, pioneered by Mrs. Li'anah, mother of Mrs. Inayah who owns Pamurbaya crackers, but is less interested and less heard by the people of Surabaya. In addition, the community does not expand its marketing and only sells crackers around the around the. Many people who produce crackers are

only for self consumption. Then after being formally established by the Office of Industry and Trade in 2010, Kampung Kerupuk Unggulan Surabaya received tools and training from the Office to become an independent business.

Until now, there are nine cracker craftsmen who actively join Kampung Kerupuk Unggulan Surabaya community and there are 5 (five) craftsmen who successfully market their products outside Surabaya City and have MUI halal certificates; Ms. Inayah (Pamurbaya Crackers), Ms. Zumaroh (Khoridah Crackers), Ms. Nur Muniroh (Nur Muniroh Crackers), Mrs. Chasanah (Gatra Crackers), and Ms. Sholichatin (Sholichatin Crackers).

4.1. Natural Resources Usage

The craftsmen in Kampung Kerupuk Unggulan Surabaya use sea catches and ponds products as raw material for cracker production, ranging from shellfish, payus fish, milkfish, shrimp, to dragon fruit and vegetables. What is quite difficult to obtain is payus fish because the harvest period is quite long, around 6 months. But the craftsmen use Payus fish crackers as their main product and it is the most popular product in the community.

Based on the results of interviews conducted by researchers, cracker craftsmen get their raw materials through markets, fish supplier agents, and buy directly from farms and fishermen. Some craftsmen such as Mrs. Inayah, Ms. Zumaroh, and Ms. Muniroh had their own farms and took raw materials from the pond.

4.2. Externalities

Positive externalities are actions of someone who benefits others, but these benefits are not allocated in the market. The positive externalities from Kampung Kerupuk Unggulan Surabaya are opening of jobs, increasing income, getting facilities and facilities and infrastructure. Meanwhile, negative externalities are costs imposed on other people outside the market system as a product of productive activities. There were no negative externalities such as environmental pollution and declining public health due to the production activities in the Kampung Kerupuk Unggulan Surabaya.

4.3. Islamic Principles of Environmental Management in Kampung Unggulan Kerupuk Surabaya

The environmental management of the Kampung Kerupuk Unggulan Surabaya can be observed from each principle. *First*, on *caliph* principle, it is reflected in the production activities that are very concerned about the cleanliness and waste management that is continuously carried out and maintained, so that the environment becomes clean and does not cause negative impacts. *Second*, *istislah* is reflected in how the Tempe craftsmen in Kampung Kerupuk Unggulan Surabaya are always trying to minimize waste so as not to disturb the surrounding community. *Third*, trust is reflected in the trust given by the Office to cracker craftsmen in managing the cracker industry waste independently. In addition, the trust principle is also reflected in the opinions of informants who are the people around Kampung Kerupuk Unggulan Surabaya who do not feel the negative impact of cracker industrial waste and waste management is well done and

hygienic. *Fourth*, eEcological balance is reflected in minimization of cracker production waste by producing crackers according to appropriate quantity, so that the ingredients used can be processed in the right portion and not waste raw materials. If there are still remaining dough or raw materials, then the cracker craftsmen will process it again into chips, so that not too much waste is produced. The rest of the waste from the manufacture of chips will be immediately disposed of in the trash, but the community claims that it does not harm them. *Fifth*, sustainability reflected in the Kampung Kerupuk Unggulan Surabaya's cracker craftsmen who gained knowledge about how to make crackers and manage their wastes from generation to generation from previous crackers.

V. Conclusion

The externalities that occur in Kampung Kerupuk Unggulan Surabaya are positive, as indicated by the absorption of employment, the opening of employment opportunities, increasing income, and the availability of public facilities such as the provision of production tools and cracker manufacturing training services. There is no negative externality generated by Kampung Kerupuk Unggulan Surabaya's craftsmen because the environmental management carried out has gone well and in accordance with Islamic principles.

The existence of Kampung Kerupuk Unggulan Surabaya is not very profitable for the community financially because according to the informants, there is no increase in income from the existence of Kampung Kerupuk Unggulan Surabaya because financial benefits are only felt by cracker craftsmen. But, the community

agrees that Kampung Kerupuk Unggulan Surabaya still exists and is developed because the community hopes that there will be more cracker craftsmen and that the village can become a tourist village. The Islamic natural resources and environmental management has been carried out well by the craftsmen of the Surabaya Kerupuk Superior Village by carrying out the principles of caliph, trust, istislah, ecological balance and sustainability.

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