Household Perception of Urban Farming for Environmental Coastal Area HouseholdB (Case Study District Gresik)

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Abstract. This study discusses the perception of households in urban farming for environmental sustainability coastal area household, especially coastal area in the District Gresik. This type of research is descriptive sources. The rate of urban population growth will cause environmental problems, ranging from land conversion to the environmental degradation caused by pollution and trash. This happens especially to the district of Gresik, because getting into residential and industrial areas. Urban farming is an activity utilizing the open spaces which are not as productive as empty land in urban areas into productive plantations through alternative activities by the people of the city to improve the quality and quantity of open space in big cities. This effort is expected to help solve the problem of improving environmental (ecological), improving the aesthetics of the narrow land or an empty area, and to improve the economic and sociological value for society. Gresik has Urban Farming area, the area of the source of agricultural and food diversity is quite high. Some important commodity support food availability and consumption are emerging in here, for example for food crops. In this research, the sample collection method using Proportionate stratified random sampling method as many as 30 people who used to answer this research. In this study are households residing in urban farming locations exactly in coastal area in the Sub-district Gresik and District Gresik. The public perception of urban farming in the district of Gresik and Kebomas the vast majority of households agreed that urban farming is able to cope with environmental problems and sustainable development that can be developed by local governments. Public perception of the use of urban farming on the surrounding environment and the District of Gresik most coastal area households also agreed on the function and benefits of urban farming. Households' perception of the appropriateness of urban farming households largely agreed on the prevention, alleviation and cessation efforts. Household perceptions of the characteristics of urban farming area in accordance with the vast majority of households agreed.

1. Introduction
The rate of urban population growth will cause environmental problems, ranging from land conversion to the environmental degradation caused by pollution and trash. If the conditions of the population growth is greater than the rate of food production, there will be a catastrophic food crisis. The amount of food that is not sufficient in parallel will have an impact on the dependency between an area or region to another region. This happens especially in coastal area the district of Gresik, because getting into residential and industrial areas. These conditions encourage the government and society for urban areas should start trying to meet the food needs independently and improve environmental conditions in order to create a healthy environment and good quality. Urban farming is an activity utilizing the open spaces which are not as productive as empty land in urban areas into productive plantations through alternative activities by the people of the city to improve the quality and quantity of open space in big cities. The main thing that led to the emergence of this activity is an attempt to contribute to food security, increase the income of local communities as well as recreation and hobby.

This information will provide an overview of the business aspects of the households dominate urban farming. The results of the study [1] show that 800 million people around the world are actively involved in urban farming, and that urban farming can produce 15 to 20 percent of world food
production. The level of community participation in urban farming activities in developing countries also vary. Viewed Average world food production from urban farming, it is not only limited to addressing food security amid the competition getting scarce resources such as water and soil, but also overcome it in a way that is innovative and integrative to optimize access, quantity and quality of food for the urban poor.

This effort is expected to help solve the problem of improving environmental (ecological), improving the aesthetics of the narrow land or an empty area, and to improve the economic and sociological value for society. Gresik has Urban Farming area, the area of the source of agricultural and food diversity is quite high. Some important commodity support food availability and consumption are emerging in here, for example for food crops. Distributions of food crops in some districts are included in the scope of the sub-districts of the city (there are two sub-districts) have a relatively adequate planting area compared to other districts. It becomes innovation in support of household food production scale, with the expectation that their implementation supports the establishment of a productive Gresik, green and convenient in the future. In this study examines urban farming that integrates aspects of environmental sustainability within the framework of environmental preservation coastal area in Gresik City.

1.1. Urban Agriculture

Urban agriculture, in English have some understanding, may be referred to as urban farming and Urban Agriculture. If in Indonesian, urban agriculture is derived from the farmer, the dictionary Indonesian, farmers' livelihood is in the form of planting, whereas agriculture is about farming (cultivate land by planting). Briefly urban agriculture is the agricultural activities carried out in the city. However, urban agriculture is more than just agricultural activities in the city.

Greenfields producing food in North American cities is an urban agriculture is growing (manufacture), processing and distribution of food and other products through intensive crop cultivation and livestock around the town. In this sense, it is mentioned that urban agriculture not only in the dimension of agricultural activity horticultural crops, but also in farming activities. Farming in the city affects the economic, health, social and urban environment. Thus there will be benefits of growing prosperity, justice, solidarity, comfort, quality of life and environmental sustainability.

Urban agriculture is defined as an activity or activities of agriculture performed in cities (intra-urban) and sub urban in coastal area to produce / maintain, manage and distribute a variety of food products and non-food, with the use or reuse of human resources, materials, products and services in urban areas [3].

International Institute for [3] positions the urban agriculture as;
(1) one source of supply of the food system and the option of urban household food security;
(2) one of the productive activities to take advantage of the open space and urban waste; and
(3) one source of income and employment opportunities of the urban population. Therefore, urban agriculture has the opportunity and good prospects for the development of based farming and insightful environmental of coastal area.

Urban agriculture is a complex system that includes a spectrum of interests, from the production, processing, marketing, distribution and consumption. For other benefits and services that are less recognized, for example for recreation and leisure, individual health, public health, the beautiful scenery and the restoration of the environment. The Potential for Urban Agriculture in the City of Vancouver, dividing the city agricultural activities into two types, namely:
(1) Small-scale urban agriculture, the urban agricultural activities which have an area of less than 1,000 m2, and
(2) The large-scale urban agriculture urban agriculture activities which have an area of more than 1,000 m2 or 10 acres.

The phenomenon of urban farming in coastal area with the characteristics of a limited land area will grow in various regions in Indonesia. The symptoms shown by the average speed of smallholders in Indonesia growth of 2.6% per annum and 2.4% per year Java. In the urban area or in the border city
expansion, such as in Greater Jakarta, narrow land farming activities are able to provide employment and income for the survival of peasant life. Although the State in a crisis situation, but farmers with small land and on the edge of the fixed urban farming (mostly of vegetables), able to attract consumers in urban areas, have a relatively continuous market, as well as obtaining continuous income.

In addressing the issue of food security, measures that can be implemented by the city is to apply the Food Oriented Development (FOD). During this time, urban development occurs; generally not consider aspects of food security for the city itself. FOD is a concept that tries to consider aspects of food security in urban development. Considerations regarding food security are expected to support the development of the urban sector that lead to sustainable development outcomes. Agricultural activities in parts of the city including FOD, because agriculture is a city of agricultural activities carried out in urban areas with the aim to overcome the food problem in the city. Agricultural activities the city can encourage the city increasingly independent in their food supply.

In addition to not need a lot of land, but also crops challenge citizen. Challenge faced considerable interest for the development of agriculture in urban areas, among others, limited land, limited knowledge and technology, time constraints can be poured, and that is no less important is the growing media limitations. This is certainly a problem that is very large, because we know that the people of the city requires food is great, how to handle this while the land is urban is very narrow, as well as land owned by any individual who is no urban certainly narrow as well, it is likely that which can be optimized yards.

1.2. Perception Definition Household
According to Big Indonesian Dictionary¹, the perception is the response (acceptance) directly from something; the person knows some things through the senses. According to [6], the perception is essentially a cognitive process experienced by everyone in understanding the information about the environment, whether through sight, sound, appreciation, feeling, and smell. The key to understanding lies in the perception is that the perception that the introduction of a unique interpretation of the situation, rather than a true recording to the explanation situation. Based on the public perception may be defined as a series of cognitive process experienced by the people against an object, event,

1.3. Factors Influencing Perceptions
According to [6], the factors that influence the perception is:
Factors attention from the outside
Factors outside consist of external environmental influences such as: intensity, size, oposite repetition, movement, and new things.

a. Intensity
The principle of the intensity of a concern can be stated that the greater the intensity of the stimulus from the outside, like the greater the things that can be understood (to be perceived).

b. Size
This factor is very close to the principle of intensity. This factor states that the greater the size of an object, then the easier it is to be known or understood.

c. Oposite or contrast
Oposite principle states that external stimuli whose appearance as opposed to the background or surrounding or entirely beyond suspicion crowd, will attract a lot of attention.

d. Repetition (repetition)
Stimulus from the outside that is repeated will give greater attention than the occasional visits.

e. Movement (moving)
The principle of this movement among states that people will give much attention to moving objects within reach of his views than from stationary objects.

f. New
This principle states that both the external situation of both new and already known can be used
as an attention getter. Object or event in a manner that is already known, or objects or events that are already known in the new order will attract a viewer's attention.

Factors of the (Internal Set Factors)
Some of the factors in a person that affects the perception of the selection process include: learning (learning), motivation, and personality.

a. Learning or understanding of learning
   All of the factors that shape their attention to an object, causing the perception is based on the complexity of psychosis. Psychological complexity is consistent with the process of understanding or learning (learning).

b. Motivation
   Motivation has a very important impact in the electoral process of perception. Someone who is hungry for power, need affiliation, and achievement will require greater attention on the variables relevant circumstances. This shows that the perception has a great influence on the motivation or vice versa.

c. Personality
   This element is very closely connected with the process of learning and motivation that has resulted from what are considered to attend a situation. Personality can have an impact on how a person did the perception of the surrounding environment.

1.4. Environment
Environmental science (environmental science) is the study of the environment. Environmental science is relatively new (1960) and began to rapidly evolve after Environment Conference held in Stockholm, Sweden in 1972.

The living environment is defined as a unity with all things space, power, state, and living beings, including humans and their behavior, which affect the continuity of livelihood and welfare of human beings and other living creatures. Observing this definition, it can be concluded that most of the elements studied in ecology is included in the component or element of the environment. Environmental science is a combination of concepts and principles of various sciences (especially ecology), which aims to study and solve the problems concerning the relationship between the living and the environment. Science is a translation of the ecological environment and therefore can’t be separated by ecology.

In a more specific scope, environmental science can be regarded as an applied science of ecology. That is, ecology is a pure science (basic), applied to the problems of life which is generally caused by human activity.

2. Methodology
2.1. Research approach
This research method using descriptive approach interpreted as an effort to give a descriptive or graphic description regarding a collectivity with the proviso that representatityas must be assured. Data analysis technique used is descriptive analysis. The data obtained in the study was made in a simpler form to be easily understood. Data presented in the form of frequency tables and percentages, then described. Data collection techniques used in this study are as follows.

a. Observation
   Observations are ways and techniques of collecting data by observing and recording systematically the symptoms or phenomena that exist on the object of research. Observations made are a direct observation in the study site. In this study, data taken through observation techniques is data about a general overview of research areas.

b. Questionnaires
   Questionnaires are data collection techniques done by providing a set of questions or written questions to the respondent to answer [8]. A questionnaire was used to determine the public
perception of the environmental management of urban farming in the district and subdistrict Kebomas Gresik Gresik.

c. Documentation

Documentation is done to obtain secondary data, obtained by a researcher not directly on the subject or the object under study, but through other parties such as agencies or related institutions, libraries, archives of individuals, and the documentation in this research was to find data by recording data that serves as the supporting data. Documentation obtained at regular intervals in the process of the study include the planting, garbage collecting activity in the manufacturing plant container urban farming in the district and sub-district Gresik Kebomas.

2.2. Research sites

This research was conducted in the district of Gresik, namely in the area of the District and the District Kebomas Gresik which has a commodity in Urban Farming. District of Gresik in the village Sidokumpul, Sukorame village, village and village Bedilan Kramatinggil, then the District Kebomas in the village Sidomoro and Gending village. Research was conducted on households in the region who have be doing Urban Farming activities for six months.

2.3. Research samples

The sample is a part of the population to be studied and considered to be able to describe the state of the actual population. In this research, the sample collection method using Proportionate stratified random sampling method. This technique is used when the population has members that are not homogeneous (heterogeneous). Sampling is the proportion determined balanced by the number of subjects in each committed to taking the subject in any urban farming business. Determination of these respondents was 30 people who used to answer this research. In this study are households residing in urban locations farming in 2019 precisely in the sub-district and District Kebomas Gresik, Gresik.

2.4. Types and Sources of Data

Types and sources of data used in this study used data from interviews with informants and data sourced reports. The necessary supporting data in this study as a report from the District of Gresik and Kebomas on households that have been conducting urban farming for six months or more.

2.5. Data analysis method

In analyzing the research data refers to the perception of the household to household environmental sustainability. The variables of this research is the perception of households to urban environmental management farming, which includes indicators:

a. Household perceptions of the purpose of government programs related to urban farming.

b. Household perceptions on the implementation of urban farming.

c. Household perceptions of the benefits of urban farming.

d. Households’ perception towards the success of urban farming.

e. Households’ perception of the appropriateness of urban farming.

f. Household perceptions of the characteristics of the region in accordance * urban farming.

3. Results and Decision

Household perceptions towards environmental sustainability households in the district of Gresik and Kebomas Gresik is an assessment of households to urban farming is an attempt a systematic and integrated committed to preserving the environmental function and prevent pollution and / or damage to the environment that is implemented by local governments and household. Household perceptions of the management of the urban environment is a farming household assessment on a systematic and integrated efforts are being made to preserve the function of the environment and prevent pollution and / or damage to the environment in the district of Gresik Gresik and Kebomas which includes indicators:
1. Coastal area household perceptions of the purpose of government programs related to urban farming is a household assessment of the government's efforts on the environmental aspects of urban farming into the training and coaching District of Gresik and Kebomas includes an inventory of urban farming environment, zoning, and sustainable development.

3.1 Government Guidance Information
Household perceptions on guidance from the government information can be seen there are 26.66% of households stated strongly agree urban farming is a coaching and training provided by local government and 53.33% of households agreed, while 16.66% of households disagree that urban farming is a training and coaching of local government.

Most households (53.33%) agreed, because households often receive training and guidance on urban farming in the form of counseling provided to citizens and residents of discussion, as well as the dissemination of the Chairman of RT and RW heads and local government. While states do not agree because the majority of the village or the village Sidokumpul since the beginning of urban farming in villages Sidokumpul for food consumption needs and have never received training or guidance of the local government, so that they know the urban farming independently.

1. Coastal area household perceptions toward the use of household is on the utilization of natural resources are carried out based on carrying capacity and coastal area environmental capacity of urban farming Kebomas District of Gresik and include sustainability and environmental sustainability function.

1. Function
Households perceive the availability of utilization of urban farming in accordance with its function can be seen that there are 20% of coastal area households stated strongly agreed that the use of urban farming is in accordance with its function and 66.66% of households agreed, while 13.33% of households expressed the utilization of urban farming do not agree because it is not in accordance with its function.

Most coastal area households (66.66%) agreed for the use of urban farming in accordance with its function by reason of their awareness of good housekeeping in maintaining the environment. While 13.33% of households, who are mostly from villages Sidokumpul disagrees because of urban farming in villages Sidokumpul to meet household food consumption and not for environmental functions.

2. Environmental Conservation
Household perceptions be sustainable due to the utilization of urban farming can be seen that there are 20% of households stated strongly agree that the environment be sustainable in the utilization of urban farming and as much as 80% of households agreed. Most households (80%) stated that the utilization of urban farming attention to preservation of the environment by reason of their consciousness of households in keeping urban farming.

2. Coastal area household perceptions of the success are the assessment of households on pollution control and environmental damage in coastal area in Kebomas District of Gresik and include prevention, cessation, and improvement of natural resources in the environment coastal area.

a. Prevention
Household perceptions towards urban farming are an attempt to prevent air pollution and damage to the environment around it is known that there are 40% of households stating prevention strongly agree and 60% of households agreed. Efforts to prevent air pollution and environmental damage done by their urban farming so as to maintain the condition of the polluted environment coastal area due to pollution the plant other than that of which related to waste management.

b. Role Termination
Household perceptions on the role of urban farming in the termination of air pollution and environmental damage can be seen that there are 40% of households strongly agreed stating the role of urban farming households and 50% agreed, while 10% of households disagree.

Most coastal area households (50%) agreed that urban farming is the stoppage role of environmental damage and air pollution do with their voluntary work regularly in the surrounding
environment. While 10% disagree to efforts to stop air pollution because pollution coming from factory pollution in the area, Gresik.

c. Role Improvements

Coastal area household perceptions towards urban farming is a role in the improvement of natural resources around it can be seen that there are 40% of households stated strongly agree that the role of urban farming in the improvement of natural resources in the surrounding environment and 60% of households agreed. Most households (60%) agreed the role of urban farming in the improvement of natural resources do around the neighborhood around the household.

3. Coastal area household perceptions of the implementation is the assessment of households on the active role of citizens to urban farming efforts in protecting the environment and prevent the decline or destruction of the environment in the district of Gresik and Kebomas caused by human activity in the form of waste and pollution. It can be seen that there are 60% of households stated strongly agree that citizens play an active role in making urban farming and 40% of households agreed. Most households (60%) stated strongly agree in the liveliness of households in urban farming conduct of the improvement greening around by distributing seedlings and garden.

4. The public perception of conformity is the conformity assessment community urban farming efforts and ongoing activities in the district of Gresik and Kebomas.

a. Sustainable development

Perception of households to urban farming in conformity surrounding environmental management and sustainable development can be seen that there are 20% of households stated strongly agree that urban farming is appropriate in environmental management are very concerned about sustainable development and 80% of households agreed. Most households (80%) stated that urban farming is an appropriate effort in managing the environment better attention to sustainable development.

b. Troubleshooting Capabilities Environment

Household perceptions of the ability of urban farming in addressing environmental problems can be seen that there are 40% of households stated strongly agree that urban farming is able to cope with environmental problems and 60% of households agreed. Most households (60%) agreed that urban farming is one of the neighborhood's ability to cope with environmental problems. This is because the environmental conditions are still good in dealing with pollution of the environment.

5. Coastal area household perceptions of the characteristics of the region are the household assessment of the characteristics of the area in accordance with the urban environment farming.

Regional characteristics

Environmental management should take into account the natural characteristics, watersheds, climate, social, cultural, economic, institutional households, and the inventory environment. Household perceptions towards environmental management according to the characteristics of the region can be seen that there are 80% of households stated strongly agree the management of urban farming is in conformity with the characteristics of the territory and 20% of households agreed. Most households (80%) agreed that the management of urban farming is correct because according to the characteristics of the region based on population density, limited local land and the area near the river.

4. Conclusion

Public perception of the use of urban farming on the surrounding environment and the District of Gresik most coastal area households also agreed on the function and benefits of urban farming. Households' perception of the appropriateness of urban farming households largely agreed on the prevention, alleviation and cessation efforts. Household perceptions of the characteristics of urban farming area in accordance with the vast majority of households agreed.

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