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2nd International Conference on Food Security and Sustainable
Agriculture in the Tropics
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Letter of Acceptance

Dear Authors: Arman Arman, Heny Agustin, Muhamad Karim, Oki Kurniawan, Budhi Purwandaya

We are pleased to inform you that your abstract (code), entitled:

The Sundown Of Home Economic At Cilongok Village; Case Of Coconut Farm Agriculture

Has been reviewed and accepted to be presented at FSSAT 2019 conference to be held on September 2, 2019 in Makassar, Indonesia.

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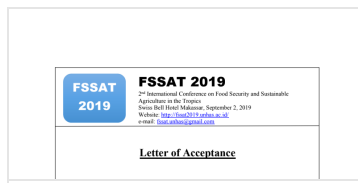
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Dear Mr/Ms **Arman Arman, Heny Agustin, Muhamad Karim, Oki Kurniawan, Budhi Purwandaya**

Congratulation, we delight to inform you that your submitted abstract:

The Sundown Of Home Economic At Cilongok Village; Case Of Coconut Farm Agric

Authors:

Arman Arman, Heny Agustin, Muhamad Karim, Oki Kurniawan, Budhi Purwand

has been accepted for presentation at the 2nd International Conference on Food Security and Sustainable Agriculture in the Tro September 2019 in Makassar, Indonesia.

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THE SUNDOWN OF HOME ECONOMIC AT CILONGOK VILLAGE: CASE OF COCONUT FARM AGRICULTURE – [Please follow IOP template](#)

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Arman Arman¹, Heny Agustin², Muhamad Karim³, Oki Kurniawan⁴, Budhi Purwandaya⁵ – [Numbering is intended for showing different affiliation – please revise](#)
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Abstract. This study tries to provide a description of the development of coconut plants in Cilongok Village. Brown sugar is an important and main source for the people of Cilongok Village, especially the Cilongok Sub-district. However, the development of the Cilongok village as a district has an influence on the coconut farm and the brown sugar home industry. This study aims to (1) design the development of coconut and brown sugar plantations in Cilongok Village and (2) Review the development of Cilongok Village as a Sub-district Capital City towards the development of the agricultural sector workforce (penderes; in Cilongok Indonesia) to services, timber industry and trade. The results show that the village of Cilongok as the capital city has an influence on the existence of coconut farming in the village. This condition affects social and economic conditions and developments. One of them is the social integration that is affected by money as a medium of exchange. The development of the service and building sector has an influence on the agricultural sector workforce. Initially, every household has a minimum of 2 penderes (the head of family and boys), but now the number is decreasing, even none. Parents do not encourage their children to obtain a family economic source as a tanger because of risk and income considerations. Most generations of "penderes" choose to work as shop employees, wood industry and service workers.

1. Introduction

Cilongok Village is a Periphery Village, the capital city of Banyumas Regency, namely Purwokerto. The distance and travel time from Cilongok Village to Purwokerto City is estimated 16 Km and ± 30 minutes. The face of Cilongok Village (as well as the Capital District of Cilongok District) has begun to shift to the city. Before entering the 1980s, social integration in the village of Cilongok was very strong. Most of farming and coconut plantations are carried out in groups accompanied by social ties. Every community help each other in agricultural activities. The exchange rates of each community are not calculated based on money but help each other during planting and harvesting when the time has come. On the other hand, social integration in the 2000s experienced a decline where the influence of money and capitalism was very strong. Money is a measure that cannot be avoided by the public. Social integration began to weak, especially related to agricultural activities.

The influence of the modernization of the City of Purwokerto gives a change in social integration which experience shrinkage. City residents and migrants gradually shifted the original residents of the landowners. Coconut plantations and rice fields have gradually become the home of migrants. Local economic activity has gradually changed its face to a city characterized by services, mixed trade and industry. Nowadays, farmers' households are estimated to only have less than 30% of the total households in Cilongok village¹. This study aims (1) to describe the development of coconut and brown sugar farming in the village of Cilongok and (2) to examine the influence of the development of the village of Cilongok as the capital city of the sub-district on shifts in the agricultural sector workforce. The existence of Purwokerto City has indeed give the spillover effect ^[1][-please follow IOP format for referencing. use of references tools such as mendeley is recommended](#) as the relationship between the city and the village (core-periphery) has the effect of the Spread effect and the backwash effect ^[2].

Coconut plants for the residents of the village of Cilongok are not only an economic resource but also are part of the process of adaptation of village communities to create ecological economics. Coconut plants provide ecological and economic benefits. From the ecology side, it is able to maintain soil fertility, prevent erosion and flooding. The economic side, coconut trees are a source of income for farmers in the village of Cilongok. Coconut farming in Cilongok Village is intercropped. Each farmer household plants various types of trees, including banana trees, duku trees, durian trees, rambutan trees and sengon trees. This s hows that farmers (penderes; in Indonesia) of Cilongok Village build a village based on ecological economy. Economic ecology is an economic activity that utilizes varied and different rural environmental resources in a sustainable manner ^[3]. Economic ecological activities do not result in resource depletion but rather provide added value and environmental benefits.

Coconut farming not only has a linkage in the economic ecological system of the community, but also forms a system of values and institutions. Furthermore, coconut farming produces local food characteristics of the people of Cilongok Village, Banyumas. There are at least 7 types of 35 local foods of the village of Cilongok identified from the results of research made from trees and coconuts, namely (1) "Cimplung"; local food made from bananas or cassava cooked with brown sugar or palm juice, (2) "Intil"; Grated cassava is then steamed and mixed with coconut sugar water (brown sugar water), (3) "lupis" sticky rice which is mixed with brown sugar water and wrapped in banana leaves, (4) "gethuk" made from boiled cassava and crushed together with brown sugar, then fried, (5) "cingcau" is a drink mixed with coconut sugar and coconut milk, (6) "satiety" mixture of glutinous rice flour and starch added with grated coconut and coconut sugar and (7) " badeg "a drink made from fermented coconut flower essence for 1-2 days. Local food is not only a source of local food but is able to (1) create opportunities for innovation and participation and (2) create space for reflection, communication and experimentation with alternative social structures ^[4]. Local food can survive if communities strengthen ideologies and cultural values that are formed historically ^[5].

Modernization and globalization threaten the existence of coconut farming, local food and sustainable development to cultural values. Cilongok village only leaves less than 30% of coconut farmers so it can threaten the existence of local food and ecological-economic development. This research has an important role because it wants to explore how the process of development of coconut farming is threatened with extinction (sun down) and how the agricultural labor sector shifts the labor and trade sectors.

2. Research methods

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Other paragraphs are indented (BodytextIndented style). This study uses a qualitative method. The technique used to obtain data is by conducting (1) in-depth interviews with several key figures such as the task of the village head, village officials, community leaders and village community, (2) conducting observations on agricultural land and (3) creating discussion groups with several village officials and community leaders. This study conducted observations of the wider community, not only coconut

¹ [Result from interview with the aparat pemerintah in Cilongok Village – no footnote in the manuscript](#)

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farmers but community leaders, small-scale entrepreneurs and housewives ^[6]. Our focus is on various activities in the village in order to obtain a complete social picture related to social issues.

3. Result

3.1. Coconut Farmers

Globalization and economic uncertainty in rural areas have a major influence on the existence of the agricultural sector and the agricultural labor sector. Agricultural activities "do not come" to provide welfare for farmers. Global commodity prices have a profound effect on the rural level. The Influence Global markets are not only in urban areas but have an impact on unemployment, falling wages and income inequality. This happened when the economic recession occurred in the USA in 2001 causing the demand for agricultural products to decline ^[7].

The global influence also has an impact on the effect of the price of processed products experiencing export constraints in various countries in Europe, one example is oil palm. This has an effect on the rural economy. In 2018, the European Union will impose an anti-subsidy duty of around 8% to 18% on Indonesia's biodiesel imported products². The same thing happens in the domestic palm sugar industry which is able to produce products that are in demand by the international market. It is showed from the growing demand for palm sugar exports, where in 2014 there was a value of USD34.7 thousand to USD48 thousand in 2017, an increase of around 27 percent³.

In the village of Cilongok, the price of the brown sugar commodity is generally controlled by the traders. Throughout the year the price of brown sugar last 3 years in the range of Rp.11,000 - Rp.12,000/kg. The highest price is when entering the Ramadan 2019 which reached Rp.14,000/kg. The production capability of land owner's/farm laborers reaches 4 kg - 6 kg daily, if lucky they can reach 7 kg. Production results are greatly influenced by weather conditions. In rainy season, the amount of production is relatively decreased. Farmers who do not own a coconut farm depend on the land owner.

Farmers who are not land owners (farm laborers) can work on land owned by farmers with a production sharing system. Production sharing system (*paro*; in local wisdom) is to divide the yields based on the time of harvest. Coconut trees can be harvested every day by farm workers. The harvest for 5 days is for farmers to choose and the next 5 days is for farm workers. Farm workers who have the expertise to climb coconut trees can work more than 1 owner of a coconut farm. In the morning, the farmer or the farm worker harvests the results of the coconut tree, then late in the afternoon the farmer or the farm worker climbs the coconut tree again. If farmers want to achieve 5 kg of production, each farmer must climb as many as 25-30 coconut trees in the morning. The tree will then be climbed again in the late afternoon.

The amount of coconut water that is needed to produce 5 kg of brown sugar is 20 liters of coconut water. The coconut water is then cooked to produce brown sugar. The mixture to produce brown sugar is a little lime and mangosteen rind. The processing of coconut water into brown sugar is done by the female farmer (farmer's wife). This is a pattern of division of labor as well as being a value system in the village of Cilongok and some in other villages in Indonesia. Brown sugar processing is still carried out traditionally by farmers. The fuel used to produce brown sugar is firewood. Other equipment is bamboo (for printing brown sugar), pan (a place to cook) and sieving tools from a coconut shell. The role of mothers has an important meaning in regulating household life obtained from the sale of brown sugar.

Farm workers who are able to produce 5 kg of brown sugar/day will get 25 kg for 5 days. The results obtained in the next 5 days were handed over to the coconut farmers' land owners. During 1 month of working day, 15 days of the proceeds are reserved for farm laborers and 15 days are for landowners.

² <https://www.cnbcindonesia.com/news/20190728232737-4-88124/jatuh-bangun-sawit-ri-penyelamat-devisa-yang-dikepung-eropa>

³ <https://kemenperin.go.id/artikel/19197/Naik-27-Persen,-Ekspor-Gula-Semut-Nasional-Lampau-USD-48-Ribu>

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When the price of brown sugar is Rp 11,000/kg, the estimated monthly income of farmers is Rp.825,000. This income is valued by the majority of very small farmers. Land owners and farm laborers do not have an alternative market to sell processed products of brown sugar. So far they have depended on collecting traders.

The income is very small in number, so to meet daily needs is very difficult. Instead of wanting to provide a good family education, the daily needs are still difficult to be met by farm workers. The needs of farmers are slightly alleviated by the free education assistance for poor farm households. This provides opportunities for farmers to provide education for their children.

Farmers consider that the future as farmers of coconut and brown sugar is increasingly "fading". Their daily needs cannot be fulfilled if they only rely on income as a laborer of coconut farms and processors of brown sugar. Brown sugar farmers face a great risk when climbing coconut trees. When this survey took place, researchers met directly with farmers who fell from coconut trees. The farmer suffered a broken spine so that his activities as a coconut farmer is over. We also got information that there were some farmers who died as a result of falling from coconut trees. The risks faced are not commensurate with the income earned as coconut farmers (penderes; in cilongok, Indonesia).

This is the life dilemma for most of the "penderes" in the village of Cilongok. They hope that there is a glimmer of hope to improve their lot as a dweller, but that hope never comes to them. Penderes still keeps 25-30 coconut trees in the morning and 25-30 trees in the afternoon to reach 5 kg of sugar production. Every risk that they face is countless, both during the rainy season and dry season. Every foot step is always accompanied by the sound of bamboo which is filled with sap. The morning after dawn, they were at the top of a coconut tree accompanied by the sound of birds and roosters crowing. In the afternoon together with the sound of the evening call to prayer they slowly returned home, hoping that the juice of the water they got tomorrow would be more. Their loyal friends are as valuable as machetes and sap water reservoirs. Unfortunately, the price of brown sugar has not been able to be a good friend to bring their lives to be more decent and prosperous.

3.2. Development of coconut and brown sugar agriculture

Cilongok village has a considerable influence on the development of the city of Purwokerto. Most of the life of the people of Cilongok Village is modernist and has a city style. This is also caused by Cilongok Village being the capital of the Cilongok District. At present, there are already quite a number of residents in Cilongok Village from other regions. Most of them are working in the city of Purwokerto. Distance and travel time that is fast enough causes some workers in the city of Purwokerto prefer to live and live. Then what about the indigenous people of the village of Cilongok, whose livelihoods are coconut farmers. Gradually, their coconut farming turned into housing. Their land was bought by migrants. Coconut farmers are increasingly shifting in the suburbs which are beginning to show dense houses and like slums. There are still many coconut farmers who do not have sanitation and livable houses. Now coconut farmers have not reached 30% of the total number of family heads.

The income of coconut farmers is not as sweet as the taste of coconut sugar (brown sugar). Becoming a coconut farmer is getting less exciting for the current generation. The development of coconut farming is worrying. Coconut trees might be a history or a fairy tale for future generations if they do not have problem solving. One of the main reasons is the problem of income and risk. There are several groups of people who have added a mixture of sugar into brown sugar. This is done to increase production and income. This method is certainly not good because it reduces the efficacy of brown sugar.

The majority of coconut farmers' offspring no longer continue the work of their parents. The reason is, among others, because (1) the number of coconut farmlands is increasingly limited and (2) the price of brown sugar which is not stable. Some of them prefer as (1) wood industry workers, (2) shop employees, (3) construction workers and (4) factory workers. Their income as wood industry workers is Rp.60,000 - Rp.80,000/day while the income as a store employee varies in value, namely Rp.40,000 - Rp.60,000/day.

At present, the number of coconut farmers (*penderes*) is getting smaller. In the past, every household had 2 *penderes*, namely parents, as the head of the family and a son. Now, there are only 1 person per-household head, while there are no more families who work as *penderes*. At present, the age of coconut farmers ranges from more than 50 years, coconut farmers aged 30-40 years are decreasing. Millennial young people prefer jobs as laborers, builders and shopkeepers. The risks they face are much smaller when compared as farmers.

Work as a laborer and a handyman is indeed uncertain every month. For 1 year, they usually do not work for 1-2 months. It really depends on the number of housing construction activities, house renovations, office buildings and factories. Their activities are mostly in Purwokerto (the capital of regency). The choice as laborer and handyman gives more hope than as a peasant farmer. The development of coconut farming is getting fainter, threatening the cultivation to become extinct. The younger generation has not seen promising hopes in coconut cultivation. Even more worrying is that some of the agricultural land belongs to the migrant population who do not work as coconut farmers. The land contains coconut trees and sengon trees. District, sub-district and village governments need to rotate together to maintain the purity of the village of Cilongok as a producer of brown sugar. Although the amount is no longer as large as ever, coconut farming needs to be preserved as part of the history and culture of the village.

3.3. *Reviving coconut farming*

Cultivation of coconut farming which is starting to fade can be overcome by adding technology and diversification of coconuts. At present the majority of coconut farmers (*penderes*) only depend on the yield of coconut sugar. Coconut shell processing can be used as a fuel/energy substitute for oil and gas fuels. The use of coconut shells can reduce household financing, especially for energy ^[8].

Furthermore, processing brown sugar can be further developed into palm sugar. A slight touch of technology and innovation can increase the price of palm sugar production to Rp.14,000/kg - Rp.16,500/kg. This price is the price set by the collecting trader. If farmers have drying technology, the results can be sold directly to companies/cooperatives. The price of palm sugar can be more than Rp.20,000/kg - Rp.25,000/kg if sold directly to the cooperative. Farmers' income can increase 2 times more than selling ordinary brown sugar. Needs to integrate lower-income households in an effort to strengthen social integration. Social integration has great potential to expand the movement towards local agriculture. It further provides support to social communities that have negative influence to build more progressive social change and social integration ^[9]. Currently, the demand for palm sugar in the world market has increased. The effect of globalization once again proves to have a considerable influence on rural welfare. This is the time for the government and other institutions to start developing household scale technology and innovation in the village so that the existence of coconut farming can be maintained.

The use and application of technology and innovation in agricultural commodities can encourage exports for the better. This can have an impact on increasing rural household income ^[10]. Furthermore, agricultural development has a great influence on reducing poverty. The effect can be greater if the level of labor productivity increases ^[11]. The further effect is to stimulate the productivity of economic activities in rural areas. Agricultural development has an important role to build a country. Agricultural development and productivity can accelerate the start of industrialization. The delay in industrialization has resulted in lower per capita income ^[12]. Thus, agricultural development at the village level has an important role in development.

Industrialization at the household scale can encourage employment. If the scale of the ant palm sugar processing household can be increased in number, then coconut farming and the coconut industry can come back to life as a support for the family economy. It is necessary to develop coconut farming entrepreneurs to strengthen the presence of coconut farmers while addressing the decreasing number of coconut farmers (*penderes*). Young farmer entrepreneurs are expected to emerge as an alternative

strategy to build a coconut farming community. The progress of the agricultural sector is to provide opportunities for farmers to develop their entrepreneurial abilities. This requires education, training and liquidity assistance ^[13].

Furthermore, an increase in farm family income can be increased by the Multifunctional Agriculture (MFA) approach. MFA has a role not only in producing food but has a wider role, namely management of renewable natural resources, landscape conversion, biodiversity and contribution to the economic and social sustainability of the region ^[14]. The application of MFA needs to pay further attention to government regulations, land-use approaches, actor-oriented and actor-based approaches and public regulation approaches. Coconut farmers in Cilongok need to expand their role by developing other agricultural commodities and processed products. True coconut is not only processed into brown sugar, but can be processed into shell charcoal briquettes, coconut oil and cocopeat (growing media) and nata de coco.

Furthermore, coconut farming needs to maintain ecological-economic based agriculture. Coconut farmers in Cilongok Village must maintain the coconut farming landscape where the area does not only grow coconut trees but there are rambutan or *Nephelium lappaceum* trees, sengon or *Albizia chinensis* trees, *Lansium domesticum* or duku trees, durian or *Durio zibethinus* trees and jackfruit or *Artocarpus heterophyllus* trees. Maintaining coconut as a support for the family economy (industry-based) means maintaining environmental sustainability and maintaining the local food of the Cilongok Village community. Village government together with stakeholders need to build synergy of economic institutions and innovation to sustain and maintain the existence of coconut farming in the village of Cilongok.

4. Conclusion

The results show that the development of coconut farming in the village of Cilongok began to dim. Cilongok village as the capital city has an influence on the existence of coconut farming in the village. Furthermore, the distance from the capital city is only around 16 km. The development of villages into cities simultaneously led to a change in the function of land for coconut plantations into housing, services and trade. The development of villages into cities has led to a change in the function of land for coconut plantations into housing, services and trade. The number of houses is increasingly accompanied by an increase in the number of migrants who want to build houses. Furthermore, indigenous people and land owners are increasingly displaced. They occupy narrow land and look like slums. Housing standards are partly unfit for habitation because they are not yet supported by good sanitation systems.

Furthermore, social integration is depreciating, one of which is influenced by money as a medium of exchange. The development of the service and building sector has an influence on the agricultural sector workforce. In the beginning, every household had at least 2 residents, but now the number is decreasing, even none. Parents do not encourage their children to obtain a family economic source as a tanger because of risk and income considerations. Most generations of "penderes" choose to work as shop employees, wood industry and service workers. The development of these economic activities has had an influence on the agricultural sector workforce with the entry of the wood, trade and service industries. Furthermore, the development of the wood, trade and service industries has a major influence on the existence of "penderes".

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The Sundown of Home Economic at Cilongok Village: Case of Coconut Farm Agriculture

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Abstract. This study ~~aimies~~ ~~onf~~ ~~the~~ ~~development~~ ~~of~~ ~~coconut~~ ~~plantations~~ ~~in~~ ~~Cilongok~~ ~~Village~~. Brown sugar is an important and main source ~~of income~~ for the people of Cilongok Village, especially ~~at~~ the Cilongok Sub-district. However, ~~therecent~~ development of the ~~CHongok~~ village as a district has an ~~influeenee-impact~~ on the coconut farming and the brown sugar home industry. The ~~objectives~~ ~~of~~ ~~this~~ ~~is~~ ~~study~~ ~~aims~~ ~~are~~ ~~to~~ ~~(1)~~ ~~to~~ ~~describe~~ ~~ign~~ the ~~recent~~ development of coconut ~~plantations~~ and brown sugar ~~production~~ ~~plantations~~ in Cilongok ~~Village~~ and (2) ~~to~~ ~~provide~~ ~~a~~ ~~R~~review ~~on~~ the development of Cilongok Village as a Sub-district Capital City towards the ~~employment~~ ~~shifts~~ ~~development~~ of the agricultural ~~sector~~ workforce (penderes; in Cilongok Indonesia) ~~into~~ to services, timber industry and trade. The results show that the village of Cilongok as the capital city has an influence on the existence of coconut farming in the village. This condition affects social and economic conditions and developments. One of them is the social integration that is affected by money as a medium of exchange. The development of the service and building sector has an influence on the agricultural sector workforce. Initially, every household has a minimum of 2 penderes (the head of family and boys), but now the number is decreasing, even none. Parents do not encourage their children to obtain a family economic source as a tanger because of risk and income considerations. Most generations of "penderes" choose to work as shop employees, wood industry and service workers.

1. Introduction

Cilongok ~~Village~~ is a ~~pP~~eriphery ~~vV~~illage ~~in~~ ~~the~~ ~~area~~ ~~of~~ ~~Purwokerto~~, ~~the~~ ~~capital~~ ~~city~~ ~~of~~ ~~Banyumas~~ ~~Regency~~, ~~namely~~ ~~Purwokerto~~. The distance and travel time from Cilongok ~~Village~~ to Purwokerto City is estimated 16 Km and ~~more~~ ~~or~~ ~~less~~ ~~±~~30 minutes ~~travel~~ ~~time~~. The face of Cilongok Village (as well as the Capital District of Cilongok District) has begun to shift ~~from~~ ~~rural~~ ~~to~~ ~~urban~~ ~~one~~ ~~to~~ ~~the~~ ~~city~~. Before entering the 1980s, social integration ~~among~~ ~~people~~ ~~lived~~ in the village of Cilongok was very strong. Most of farming and coconut plantations ~~are~~ ~~were~~ carried out in groups accompanied by social ties. Every community ~~helped~~ each other in agricultural activities. The ~~value~~ ~~of~~ ~~exchange~~ ~~rates~~ of each community ~~are~~ ~~were~~ not calculated based on money ~~only~~ but ~~also~~ ~~by~~ ~~helping~~ each other during planting

and harvesting when the time has come. On the other hand, this social ties or integration in the 2000's experienced a decline where the influence of money and capitalism was very began to take form strongly. Money is then a measure that cannot be avoided by the public. Social integration began to weakened, especially related to agricultural activities.

The influence of the modernization of the City of Purwokerto gives also a changed the social integration which experience shrinkage. City residents and migrants gradually shifted the original residents of and the landowners. Coconut plantations and rice fields have gradually become the home of a residential area of the migrants. Local economic activity has gradually changed its face to a city characteritic dominated by services, mixed trade and industry. Observation and discussion with local officials at the site indicated that at present, Nowadays, farmers' s' households are estimated to be only have less than 30 percent 0% of the total households in Cilongok village⁴.

This study aims (1) to describe the recent development of coconut and brown sugar farming in the village of Cilongok and (2) to examine the influence-impact of the development of the village of Cilongok as the capital city of the sub-district on employment shifts in the agricultural-sector workforce. The existence of Purwokerto City has indeed give the spillover effect ¹ please follow IOP format for city and the village (core-periphery) has the effect of the Spread effect and the backwash effect ².

Coconut plants for the residents of the village of Cilongok are not only an economic resource but also are part of the process of adaptation of village communities to create ecological economics. Coconut plants provide ecological and economic benefits. From the ecology side, it is able to maintain soil fertility, prevent erosion and flooding. The economic side, coconut trees are a source of income for farmers in the village of Cilongok. Coconut farming in Cilongok Village is intercropped. Each farmer household plants various types of trees, including banana trees, duku trees, durian trees, rambutan trees and sengo trees. This shows that farmers (penderes; in Indonesia) of Cilongok Village build a village based on ecological economy. Economic ecology is an economic activity that utilizes varied and different rural environmental resources in a sustainable manner ³. Economic ecological activities do not result in resource depletion but rather provide added value and environmental benefits.

Coconut farming not only has a linkage in the economic ecological system of the community, but also forms a system of values and institutions. Furthermore, coconut farming produces local food characteristics of the people of Cilongok Village, Banyumas. There are at least 7 types of 35 local foods of the village of Cilongok identified from the results of research made from trees and coconuts, namely (1) "Cimplung"; local food made from bananas or cassava cooked with brown sugar or palm juice, (2) "Intil"; Grated cassava is then steamed and mixed with coconut sugar water (brown sugar water), (3) "lupis" sticky rice which is mixed with brown sugar water and wrapped in banana leaves, (4) "gethuk" made from boiled cassava and crushed together with brown sugar, then fried, (5) "cingcau" is a drink mixed with coconut sugar and coconut milk, (6) "satiety" mixture of glutinous rice flour and starch added with grated coconut and coconut sugar and (7) " badeg " a drink made from fermented coconut flower essence for 1-2 days. Local food is not only a source of local food but is able to (1) create opportunities for innovation and participation and (2) create space for reflection, communication and experimentation with alternative social structures ⁴. Local food can survive if communities strengthen ideologies and cultural values that are formed historically ⁵.

Modernization and globalization threaten the existence of coconut farming, local food and sustainable development to cultural values. Cilongok village only leaves less than 30% of coconut farmers so it can threaten the existence of local food and ecological-economic development. This research has an important role because it wants to explore how the process of development of coconut farming is threatened with extinction (sun down) and how the agricultural labor sector shifts the labor and trade sectors.

2. Research methods

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interviews with several key figures such as the task of the village head, village officials, community leaders and village community, (2) conducting observations on agricultural land and (3) creating

discussion groups with several village officials and community leaders. This study conducted observations of the wider community, not only coconut farmers but community leaders, small-scale entrepreneurs and housewives^[6]. Our focus is on various activities in the village in order to obtain a complete social picture related to social issues.

~~Other paragraphs are indented (BodytextIndented style)~~ This study uses a qualitative method. The technique used to obtain data is by conducting (1) in-depth interviews with several key figures such as the task of the village head, village officials, community leaders and village community, (2) conducting observations on agricultural land and (3) creating discussion groups with several village officials and community leaders. This study conducted observations of the wider community, not only coconut farmers but community leaders, small-scale entrepreneurs and housewives^[6]. Our focus is on various activities in the village in order to obtain a complete social picture related to social issues.

3. Result

3.1. Coconut Farmers

Globalization and economic uncertainty in rural areas have a major influence on the existence of the agricultural sector and the agricultural labor sector. Agricultural activities "do not come" to provide welfare for farmers. Global commodity prices have a profound effect on the rural level. The Influence Global markets are not only in urban areas but have an impact on unemployment, falling wages and income inequality. This happened when the economic recession occurred in the USA in 2001 causing the demand for agricultural products to decline^[7].

The global influence also has an impact on the effect of the price of processed products experiencing export constraints in various countries in Europe, one example is oil palm. This has an effect on the rural economy. In 2018, the European Union will impose an anti-subsidy duty of around 8% to 18% on Indonesia's biodiesel imported products². The same thing happens in the domestic palm sugar industry which is able to produce products that are in demand by the international market. It is showed from the growing demand for palm sugar exports, where in 2014 there was a value of USD34.7 thousand to USD48 thousand in 2017, an increase of around 27 percent³.

In the village of Cilongok, the price of the brown sugar commodity is generally controlled by the traders. Throughout the year the price of brown sugar last 3 years in the range of Rp.11,000 - Rp.12,000/kg. The highest price is when entering the Ramadan 2019 which reached Rp.14,000/kg. The production capability of land owner's/farm laborers reaches 4 kg - 6 kg daily, if lucky they can reach 7 kg. Production results are greatly influenced by weather conditions. In rainy season, the amount of production is relatively decreased. Farmers who do not own a coconut farm depend on the land owner.

Farmers who are not land owners (farm laborers) can work on land owned by farmers with a production sharing system. Production sharing system (*paro*; in local wisdom) is to divide the yields based on the time of harvest. Coconut trees can be harvested every day by farm workers. The harvest for 5 days is for farmers to choose and the next 5 days is for farm workers. Farm workers who have the expertise to climb coconut trees can work more than 1 owner of a coconut farm. In the morning, the farmer or the farm worker harvests the results of the coconut tree, then late in the afternoon the farmer or the farm worker climbs the coconut tree again. If farmers want to achieve 5 kg of production, each farmer must climb as many as 25-30 coconut trees in the morning. The tree will then be climbed again in the late afternoon.

The amount of coconut water that is needed to produce 5 kg of brown sugar is 20 liters of coconut water. The coconut water is then cooked to produce brown sugar. The mixture to produce brown sugar is a little lime and mangosteen rind. The processing of coconut water into brown sugar is done by the

² <https://www.cnbeindonesia.com/news/20190728232737-4-88124/jatuh-bangun-sawit-ri-penyelamat-devisa-yang-dikepung-eropa>

³ <https://kemenperin.go.id/artikel/19197/Naik-27-Persen,-Ekspor-Gula-Semut-Nasional-Lampaui-USD-48-Ribu>

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female farmer (farmer's wife). This is a pattern of division of labor as well as being a value system in the village of Cilongok and some in other villages in Indonesia. Brown sugar processing is still carried out traditionally by farmers. The fuel used to produce brown sugar is firewood. Other equipment is bamboo (for printing brown sugar), pan (a place to cook) and sieving tools from a coconut shell. The role of mothers has an important meaning in regulating household life obtained from the sale of brown sugar.

Farm workers who are able to produce 5 kg of brown sugar/day will get 25 kg for 5 days. The results obtained in the next 5 days were handed over to the coconut farmers' land owners. During 1 month of working day, 15 days of the proceeds are reserved for farm laborers and 15 days are for landowners. When the price of brown sugar is Rp. (Rupiah) ~~please use correct format for currency in~~ Rp.825,000. This income is valued by the majority of very small farmers. Land ~~owners~~ and farm ~~laborers~~ do not have an alternative market to sell processed products of brown sugar. So far depended on collecting traders.

The income is very small in number, so to meet daily needs is very difficult. Instead of wanting to provide a good family education, the daily needs are still difficult to be met by farm workers. The needs of farmers are slightly alleviated by the free education assistance for poor farm households. This provides opportunities for farmers to provide education for their children.

Farmers consider that the future as farmers of coconut and brown sugar is increasingly "fading". Their daily needs cannot be fulfilled if they only rely on income as a laborer of coconut farms and processors of brown sugar. Brown sugar farmers face a great risk when climbing coconut trees. When this survey took place, researchers met directly with farmers who fell from coconut trees. The farmer suffered a broken spine so that his activities as a coconut farmer is over. We also got information that there were some farmers who died as a result of falling from coconut trees. The risks faced are not commensurate with the income earned as coconut farmers (penderes; in cilongok, Indonesia).

This is the life dilemma for most of the "penderes" in the village of Cilongok. They hope that there is a glimmer of hope to improve their lot as a dweller, but that hope never comes to them. Penderes still keeps 25-30 coconut trees in the morning and 25-30 trees in the afternoon to reach 5 kg of sugar production. Every risk that they face is countless, both during the rainy season and dry season. Every foot step is always accompanied by the sound of bamboo which is filled with sap. The morning after dawn, they were at the top of a coconut tree accompanied by the sound of birds and roosters crowing. In the afternoon together with the sound of the evening call to prayer they slowly returned home, hoping that the juice of the water they got tomorrow would be more. Their loyal friends are as valuable as machetes and sap water reservoirs. Unfortunately, the price of brown sugar has not been able to be a good friend to bring their lives to be more decent and prosperous.

3.2. Development of coconut and brown sugar agriculture

Cilongok village has a considerable influence on the development of the city of Purwokerto. Most of the life of the people of Cilongok Village is modernist and has a city style. This is also caused by Cilongok Village being the capital of the Cilongok District. At present, there are already quite a number of residents in Cilongok Village from other regions. Most of them are working in the city of Purwokerto. Distance and travel time that is fast enough causes some workers in the city of Purwokerto prefer to live and live. Then what about the indigenous people of the village of Cilongok, whose livelihoods are coconut farmers. Gradually, their coconut farming turned into housing. Their land was bought by migrants. Coconut farmers are increasingly shifting in the suburbs which are beginning to show dense houses and like slums. There are still many coconut farmers who do not have sanitation and livable houses. Now coconut farmers have not reached 30% of the total number of family heads.

The income of coconut farmers is not as sweet as the taste of coconut sugar (brown sugar). Becoming a coconut farmer is getting less exciting for the current generation. The development of coconut farming is worrying. Coconut trees might be a history or a fairy tale for future generations if they do not have problem solving. One of the main reasons is the problem of income and risk. There are several groups

of people who have added a mixture of sugar into brown sugar. This is done to increase production and income. This method is certainly not good because it reduces the efficacy of brown sugar.

The majority of coconut farmers' offspring no longer continue the work of their parents. The reason is, among others, because (1) the number of coconut farmlands is increasingly limited and (2) the price of brown sugar which is not stable. Some of them prefer as (1) wood industry workers, (2) shop employees, (3) construction workers and (4) factory workers. Their income as wood industry workers is Rp.60,000 - Rp.80,000/day while the income as a store employee varies in value, namely Rp.40,000 - Rp.60,000/day.

At present, the number of coconut farmers (*penderes*) is getting smaller. In the past, every household had 2 *penderes*, namely parents, as the head of the family and a son. Now, there are only 1 person per-household head, while there are no more families who work as *penderes*. At present, the age of coconut farmers ranges from more than 50 years, coconut farmers aged 30-40 years are decreasing. Millennial young people prefer jobs as laborers, builders and shopkeepers. The risks they face are much smaller when compared as farmers.

Work as a laborer and a handyman is indeed uncertain every month. For 1 year, they usually do not work for 1-2 months. It really depends on the number of housing construction activities, house renovations, office buildings and factories. Their activities are mostly in Purwokerto (the capital of regency). The choice as laborer and handyman gives more hope than as a peasant farmer. The development of coconut farming is getting fainter, threatening the cultivation to become extinct. The younger generation has not seen promising hopes in coconut cultivation. Even more worrying is that some of the agricultural land belongs to the migrant population who do not work as coconut farmers. The land contains coconut trees and sengon trees. District, sub-district and village governments need to rotate together to maintain the purity of the village of Cilongok as a producer of brown sugar. Although the amount is no longer as large as ever, coconut farming needs to be preserved as part of the history and culture of the village.

3.3. *Reviving coconut farming*

Cultivation of coconut farming which is starting to fade can be overcome by adding technology and diversification of coconuts. At present the majority of coconut farmers (*penderes*) only depend on the yield of coconut sugar. Coconut shell processing can be used as a fuel/energy substitute for oil and gas fuels. The use of coconut shells can reduce household financing, especially for energy ^[8].

Furthermore, processing brown sugar can be further developed into palm sugar. A slight touch of technology and innovation can increase the price of palm sugar production to Rp.14,000/kg - Rp.16,500/kg. This price is the price set by the collecting trader. If farmers have drying technology, the results can be sold directly to companies/cooperatives. The price of palm sugar can be more than Rp.20,000/kg - Rp.25,000/kg if sold directly to the cooperative. Farmers' income can increase 2 times more than selling ordinary brown sugar. Needs to integrate lower-income households in an effort to strengthen social integration. Social integration has great potential to expand the movement towards local agriculture. It further provides support to social communities that have negative influence to build more progressive social change and social integration ^[9]. Currently, the demand for palm sugar in the world market has increased. The effect of globalization once again proves to have a considerable influence on rural welfare. This is the time for the government and other institutions to start developing household scale technology and innovation in the village so that the existence of coconut farming can be maintained.

The use and application of technology and innovation in agricultural commodities can encourage exports for the better. This can have an impact on increasing rural household income ^[10]. Furthermore, agricultural development has a great influence on reducing poverty. The effect can be greater if the level of labor productivity increases ^[11]. The further effect is to stimulate the productivity of economic activities in rural areas. Agricultural development has an important role to build a country. Agricultural

development and productivity can accelerate the start of industrialization. The delay in industrialization has resulted in lower per capita income ^[12]. Thus, agricultural development at the village level has an important role in development.

Industrialization at the household scale can encourage employment. If the scale of the ant palm sugar processing household can be increased in number, then coconut farming and the coconut industry can come back to life as a support for the family economy. It is necessary to develop coconut farming entrepreneurs to strengthen the presence of coconut farmers while addressing the decreasing number of coconut farmers (penderes). Young farmer entrepreneurs are expected to emerge as an alternative strategy to build a coconut farming community. The progress of the agricultural sector is to provide opportunities for farmers to develop their entrepreneurial abilities. This requires education, training and liquidity assistance ^[13].

Furthermore, an increase in farm family income can be increased by the Multifunctional Agriculture (MFA) approach. MFA has a role not only in producing food but has a wider role, namely management of renewable natural resources, landscape conversion, biodiversity and contribution to the economic and social sustainability of the region ^[14]. The application of MFA needs to pay further attention to government regulations, land-use approaches, actor-oriented and actor-based approaches and public regulation approaches. Coconut farmers in Cilongok need to expand their role by developing other agricultural commodities and processed products. True coconut is not only processed into brown sugar, but can be processed into shell charcoal briquettes, coconut oil and cocopeat (growing media) and nata de coco.

Furthermore, coconut farming needs to maintain ecological-economic based agriculture. Coconut farmers in Cilongok Village must maintain the coconut farming landscape where the area does not only grow coconut trees but there are rambutan or *Nephelium lappaceum* trees, sengon or *Albizia chinensis* trees, *Lansium domesticum* or duku trees, durian or *Durio zibethinus* trees and jackfruit or *Artocarpus heterophyllus* trees. Maintaining coconut as a support for the family economy (industry-based) means maintaining environmental sustainability and maintaining the local food of the Cilongok Village community. Village government together with stakeholders need to build synergy of economic institutions and innovation to sustain and maintain the existence of coconut farming in the village of Cilongok.

4. Conclusion

The results show that the development of coconut farming in the village of Cilongok began to dim. Cilongok village as the capital city has an influence on the existence of coconut farming in the village. Furthermore, the distance from the capital city is only around 16 km. The development of villages into cities simultaneously led to a change in the function of land for coconut plantations into housing, services and trade. The development of villages into cities has led to a change in the function of land for coconut plantations into housing, services and trade. The number of houses is increasingly accompanied by an increase in the number of migrants who want to build houses. Furthermore, indigenous people and land owners are increasingly displaced. They occupy narrow land and look like slums. Housing standards are partly unfit for habitation because they are not yet supported by good sanitation systems.

Furthermore, social integration is depreciating, one of which is influenced by money as a medium of exchange. The development of the service and building sector has an influence on the agricultural sector workforce. In the beginning, every household had at least 2 residents, but now the number is decreasing, even none. Parents do not encourage their children to obtain a family economic source as a tanger because of risk and income considerations. Most generations of "penderes" choose to work as shop employees, wood industry and service workers. The development of these economic activities has had an influence on the agricultural sector workforce with the entry of the wood, trade and service industries. Furthermore, the development of the wood, trade and service industries has a major influence on the existence of "penderes".

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THE SUNDOWN OF HOME ECONOMIC AT CILONGOK VILLAGE: CASE OF COCONUT FARM AGRICULTURE

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Purwandaya

Introduction

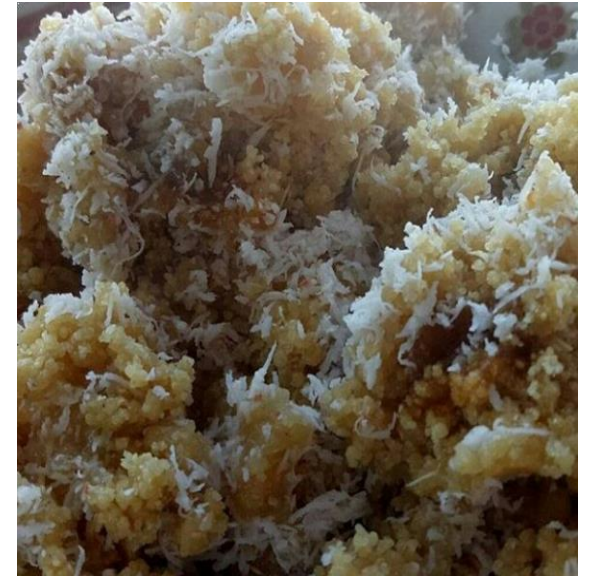
- Before entering the 1980s, local economic come from coconut farm
- Coconut plants are not only an economic resource but also are part of the process of adaptation of village communities to create ecological economics.
- There are at least 7 types of 35 local foods from Coconut

Local Food

- "Cimplung"; local food made from bananas or cassava cooked with brown sugar or palm juice



- "Intil"; Grated cassava is then steamed and mixed with coconut sugar water (brown sugar water),



Introduction

- Local economic activity has gradually changed its face to a city characterized by services, mixed trade and industry.
- Nowadays, farmers' households (penderes) are estimated to only have less than 15% of the total households in Cilongok village

The Objective

- (1) Design the development of coconut and brown sugar plantations in Cilongok Village and
- (2) Review the development of Cilongok Village as a Sub-district Capital City towards the development of the agricultural sector workforce (penderes; in Cilongok Indonesia) to services, timber industry and trade

Research Methods

- (1) In-depth interviews with several key figures,
- (2) Conducting observations on agricultural land and
- (3) Creating discussion groups with several village officials and community leaders.

Result and Discussion (Coconut Farmers)

- The price of the brown sugar commodity is generally controlled by the traders.
- The production capability of land owner's/farm laborers reaches 3 kg - 4 kg daily
- The price of brown sugar is Rp.11,000/kg
- The estimated monthly income of farmers is Rp.825,000 (15 days of the proceeds are reserved)
- That way, wh

Result (coconut Farm)

- The majority of coconut farmers' offspring no longer continue the work of their parents.
- In the past, every household had 2 penderes
 - (1) wood industry workers,
 - (2) shop employees,
 - (3) construction workers and
 - (4) factory workers. Their income as wood industry workers is Rp.60,000 - Rp.80,000/day while the income as a store employee varies in value, namely Rp.40,000 - Rp.60,000/day.

Reviving coconut farming

- At present the majority of coconut farmers (penderes) only depend on the yield of coconut sugar.
- Coconut shell processing can be used as a fuel/energy substitute
- Furthermore, processing brown sugar can be further developed into palm sugar. The price palm sugar 20,000/kg - Rp.25,000/kg → effect globalization → can overcome low income and poverty

Reviving coconut farming

- Developing household scale technology and innovation in the village
 - (1) increasing rural household income
 - (2) stimulate the productivity of economic activities
 - (3) Young farmer entrepreneurs are expected to emerge as an alternative strategy to build a coconut farming community
 - (4) increase in farm family income can be increased by the Multifunctional Agriculture (MFA) approach

Conclusion

- The development of villages into cities simultaneously led to a change in the function of land for coconut plantations into housing, services and trade
- The development of the service and building sector has an influence on the agricultural sector workforce
- every household had at least 2 residents, but now the number is decreasing, even none
- Parents do not encourage their children to obtain a family economic source as a tanger because of risk and income considerations
- Most generations of "penderes" choose to work as shop employees, wood industry and service workers