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ANALYSIS OF FOOD SYSTEM RESILIENCE IN KAMPONG CIREUNDEU, LEUWIGAJAH, SOUTH CIMAHI, CIMAHI

Era Purike
Hotel Management, Politeknik Pajajaran ICB Bandung
Grand Surapati Core Street of P.H.H. Mustofa No.155 Bandung, Indonesia
Corresponding author: Era Purike, Hotel Management, Politeknik Pajajaran ICB Bandung, Indonesia
E-mail: era.purike@poljan.ac.id

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Abstract:
The Indonesian government has tried to develop tourism based on the potential and ability of people to manage tourism activities. This strategy is realized through the development of a tourism village, one of which is the Lombok Kulon Tourism Village in Bondowoso Regency. This study aims to determine the institutional capacity in developing Lombok Kulon Tourism Village. The study was conducted with a descriptive qualitative method. The results of this study indicate that at the organizational level, the POKDARWIS "Lombok Kulon" has shown functional capacity in aspects of external partnerships, aspects of tourism potential development, and aspects of promotion of tourism villages. While in the aspects of leadership and coordination, it shows a lack of capacity. While at the individual level, individuals have a functional capacity in pioneering the development of tourism potential. However, individuals have a lack of capacity in understanding and applying the village tourism concept.

Keywords:
Institutional Capacity; Organizational Capacity; Individual Capacity

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INTRODUCTION

Food is one of the basic needs in addition to clothing and boards that can support the survival of human life. Humans can do their daily activities if supported by good food. The issue of food is an issue that involves not only agricultural and economic aspects, but also social, political, and ecological aspects. The discourse on sustainable development also impacts the agricultural sector, which expected to implement the best management in agriculture and improvement in social and ecological conditions. Therefore, the concept of sustainable agriculture emerges, which expected to conserve natural resources and protect the environment, improve public health and safety, and produce adequate amounts of food that also benefits farmers (Schaller, 1993). The agro-ecological approach to the concept of sustainable agriculture, including organic agriculture, remains an addition to the agricultural policy agenda (Adenle, 2019).

Agriculture plays a significant role in providing basic human needs such as food, feed, fibre, and bio-fuel needs; and participating in the country's economic development. In addition to producing food, sustainable agriculture also contributes to landscape, food security, and local food security, the biodiversity of agricultural land, and improving environmental quality (Aleksander Grzelak, 2019). Increasing the number of world population also increases the fulfillment of food needs for each individual. Sustainable agricultural production is essential to balance current and future population needs (J. Erbaugh et al., 2019). Thus, problems that occur in the food sector can cause turmoil in other sectors and can have an impact on economic and national stability.

For this reason, a system that can regulate the food sector in a country needed so all levels of society can access that food. Following Law Number 7 of 1996 concerning Food where Article 1 Number 3 states that the food system is a matter that covers every aspect that regulates, fosters and supervises all activities or processes of food production and food distribution until it is finally ready for human consumption (Badan Pengawas Obat dan Makanan RI, 1996). The food system also includes activities in the process of production, distribution to waste treatment, where one aspect with other aspects exerts both positive and negative influence on the entire food system.

Food systems that include production, distribution, and consumption often faced with natural environmental resources that can utilize (ecological conditions), political policies and structures, consumption culture, and social safety nets that exist in society (Vallee, 2007). Emerging solutions to overcome these challenges should not only consider how food produced but also address community concerns, environmental problems, food safety, and quality requirements, and economic viability (Kamble,

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2020). All these aspects can provide changes to the food system both directly and indirectly. Changes and dynamics that occur can provide positive or negative inputs and outputs on the existing food system. However, the extent to which the ability of the food system to respond and interact with existing dynamics, is of interest to researchers in analyzing the resilience of a food system to be able to maintain the initial conditions of a food system. The complexity of the food system that starts from the process of production, distribution, and consumption requires a comprehensive study. Political ecology also used to analyze this linkage because political ecology can expand the concept of ecology to address the inclusion of culture and political activities into a critical ecosystem analysis but not always the whole is built socially (Park, 1994). Political ecology considers that some issues related to ecological or environmental changes are not only analyzed ecologically, but this is inseparable from the influence of interactions between politics, economics, and social (Franklin, 2004). Political ecology stems from the inequality of the relationship between power, conflict, and the 'modernization' of culture and the global capitalist political economy as a key in reshaping human relations with the surrounding physical environment, which decreases the stability of these relationships (Walker, 2005).

The food system is a continuous process that starts from the stages of production, distribution, to consumption involving humans and the environment (Ericksen, 2008). This whole process involves several non-linear components such as actors, agents, input, requests, policies, and regulations that drive sequential processes. Food supply systems have non-linear processes and components that are part of the food production stage. Achieving a sustainable agricultural food supply chain requires balanced ecological, social, and economic sustainability (Kamble, 2020). From the literature reviewed by Kamble (2020), including research conducted by Jelsma et al., (2017) and Shukla and Tiwari (2017) state that the inclusion of small farmers in the supply chain and providing stable institutional arrangements is essential in achieving the goal of social sustainability of a sustainable agricultural food supply chain that leads to increased productivity, rural development, and land expansion. One of the ecological sustainability can be seen from the short food supply chain and diverse preferences for local food products. It can be an effective strategy for the preservation and development of urban agriculture, overcoming food quality and safety issues (Cojocariu, 2012; Thomson et al., 2017; Kamble, 2020). The results of a review of several studies conducted by Kamble (2020) related to economic sustainability, almost in line with social and ecological sustainability that short supply chains and local food product purchases are identified as sustainable strategies that provide ecological, health and socio-economic benefits (Schmitt et al., 2017; Ilbery and Maye, 2005). Collective action strategies with secure institutional arrangements by farmers (Jelsma et al., 2017), alternative packaging (Battini et al., 2016), partially guaranteed prices (Tang et al., 2016), and production sharing contracts between buyers and farmers (Yan et al., 2015) were also identified as an effective strategy for developing an economically sustainable agricultural food supply chain.

The concept of sustainable agriculture is almost in line with the concept of food system resilience, which was put forward by Valle (2007), which also considers the social, economic, ecological, and consumption dimensions. Taking the opinion of (Dale 2001; Robinson and Tinker 1997; Valle 2007) assumes food-related resilience that structural problems involved in food systems are the result of complex interactions between subsystems that include ecological, social and economic wealth. Therefore, Resilience Theory can be applied to obtain a sustainable food system by taking into account ecological, social, and economic aspects. There is a very close relationship between social systems and ecosystems that connected with the process of selection and adaptation to the flow of material, energy, and information (Rambo, 1983).

Vallẻe (2007) also defines food system resilience as a dynamic process drive while trying to maintain the function of a food system that results in food security. The center of the food security system mentioned by Vallee (2007) lies in the interrelated relationship between the adaptive cycle and the food provision system. Food provision systems are still largely dependent on food production. Food production was strongly influenced by its ecology conditions, such as seed quality, soil fertility, climate fluctuations, water, and other ecosystem services. Economic security also needs to be considered because this is related to community access to food. Global trade is prone to crisis, income and livelihood instability, or loss of productive household assets such as ownership/rights to land. The resilience of food utilization was influenced by gender inequality in food utilization, health factors, nutritional intake, cultural influences, and knowledge of food safety. Social security influenced by the presence of safety nets in the community. Some communities have a culture in the form of local wisdom that can be an example of this social safety net. This safety net can be a form of community adaptation to survive.

In analyzing the resilience of the food system, researchers chose Kampong Cireundeu, a village that has an open food system. Kampong Cireundeu is one of the villages that is part of Leuwigajah village, Cimahi Selatan District, Cimahi City. This village is one of the villages where some residents choose non-rice staples as cassava. The community grows their cassava, which is their staple food, then processes it into granules in the form of rice and is also marketed in Kampong Cireundeu. Kampong Cireundeu has also been established as a Food Security Tourism Village through the Decree of the Mayor of Cimahi No. 501 / Kep 208 / BPMPPKB / 2010 concerning the Food Self-Reliance Village. However, its independence began to shift, as there were many changes in the existing food system (Tishaeni, 2010). This paper will analyze how the resilience of the existing food system in the community of Kampong Cireundeu and the extent to which political systems or policies affect the resilience of the existing food system in Kampong Cireundeu.

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METHOD

To answer the researcher's questions, the research design used is a mixed-method (concurrent design) (Cresswell, 2009). Qualitative methods used to obtain data on government policies, the scope of the food system related to food production, distribution, and consumption, food system resilience which includes ecological, economic, and social conditions, especially the conditions of local farmers and the forms of adaptation carried out if there is a disturbance in the food system's resilience in Kampong Cireundeu. In performing data reduction, all data obtained, grouped, and abstracted. Then check the validity of the data with triangulation techniques. The data obtained compared with similar data obtained through interviews, observations, and documentation. The next step is to present data that the relationships between data analyzed from the perspective of political ecology. Then as a final step, the data is concluded based on the findings and verification of data obtained at the study site.

Quantitative methods used to explore data on the amount of food consumption at the household level, the Energy Adequacy Figures (EAF) and Protein Adequacy Figures (PAF), the level of family income, and the production of agricultural/plantation land which provides food supply for the people of Kampong Cireundeu. This study uses concurrent mixed-methods, to analyze the data obtained during the study, then quantitative data analysis is used to support the understanding of qualitative data analysis (Cresswell, 2009). To find out the difference between people who routinely do activities outside the area of Kampong Cireundeu and those who are not / less routinely), use the Two-Sample t Connection Test:

$$t = \frac{\Sigma D}{\sqrt{\frac{n.\Sigma D^2 - (\Sigma D)^2}{n-1}}}$$

Description:
D = Difference between group 1 and group 2 values
n = Sample size
The following formula used to find out the food carrying capacity of an area:

$$\text{Number of Population Receiving Food} = \frac{\text{Amount of Food Availability}}{\text{Amount of Individual Food Needs}}$$

Based on the indicators put forward by FAO regarding food availability, the amount of food availability will be calculated based on yields of agricultural/garden land, area of agricultural/garden land, and the number of livestock (Hopfenberg, 2003).

RESULTS AND DISCUSSION

The majority of land use in Kampong Cireundeu in 2011 was for the dried-up field for amount 48,77% or 23,83 ha, and the 1,223 population meet their food needs from other regions (Sofia, 2014). Economically, the majority population (151 households) in Kampong Cireundeu work as daily labourers with income ranging from Rp. 30,000 – 50,000 per day. For consumption, the majority of the population (160 population) in Kampong Cireundeu consumes rice for 91.7 kg/capita/year, which it takes a land area of 229.25 m2/capita/year.

Meanwhile, the amount of r*asi* production per person is 1,291,389 kg/year. With the potential consumption of cassava at 14,630 kg/year, the level of sufficiency in meeting the *rasi* needs of 54 households in Kampong Cireundeu, is sufficient (Mahayana, 2011). Unfortunately, the food reserves for emergencies such as natural disasters or dried-up season are not available in Kampong Cireundeu. The conclusion can be seen in table 1.

Table.1 Analysis of Food System Resilience Dimension

Food System Resilience Dimension	Analysis
Ecology	48,77% or 23,83 ha land used for dried-up field and 1,223 population meet their food needs from other regions
Economy	151 households in Kampong Cireundeu work as daily laborers with income ranging from Rp 30,000 – 50,000 per day
Consumption	The land area is insufficient to provide the rice consumption for 1,117 population, but it is sufficient to provide rasi for 106 population
Social	No social safety net

Administratively based on Law No. 1 of 2001 concerning the Formation of the City of Cimahi, Kampong Cireundeu is one of the villages that is part of Leuwigajah, South Cimahi Sub-district, Cimahi. Kampong Cireundeu is a village located in a hilly valley. Geographically, the hills that surround it include Bukit Gajah Langu and Bukit Jambul in the north, Bukit Puncak Salam in the east, Bukit Cimenteng in the south and

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Pasir Panji, and Bukit Kunci in the west. The height of Kampong Cireundeu is in the range of 600-800 meters above sea level (Kelurahan Leuwigajah, 2013; Unpad, 2012; Bakosurtanal cited by Mahayana, 2011).

Rainfall in Kampong Cireundeu ranges from 1,500 - 3,000 mm per year (Kelurahan Leuwigajah, 2013; Unpad, 2012; Badan Penelitian dan Pengembangan Pertanian Kota Cimahi, 2012; Dinas PU Pengairan Kabupaten Bandung cited by Mahayana, 2011).

Kampong Cireundeu is located in RW 10 of Leuwigajah, which consists of 5 RTs with an area of 393.40 ha. Cireundeu village, which is a research area, has a population of 384 households (heads of households) or 1,223 people consisting of 624 men and 599 women. The majority of households in Kampong Cireundeu are in the productive age, namely the age of 18-40 years (175 households) with the most employment choices as casual daily laborers (151 households) and industrial workers (92 households). This livelihood choice is based more on the level of community education in Kampong Cireundeu, which mostly graduated from elementary and junior high schools totaling 233 families (Kelurahan Leuwigajah, 2013).

A. Fulfilment of Food Needs

Staple Food Options

Based on observations on Consumption Patterns and Food Surveys, there are 2 (two) types of staple foods that are commonly consumed daily by the community in Kampong Cireundeu. The most extensive staple food choices (85.9% or as many as 330 families equivalent to 1117 people) in Kampong Cireundeu are the staple food choices like most people in Indonesia, namely rice. While the next choice is cassava, which is processed like rice, people call it *rasi*. *Rasi* is cassava in the form of granules like rice. In 2015, the staple food *rasi* was chosen by only 14.1% (54 households or as many as 106 people) of the people of Kampong Cireundeu. Figure 1 described the comparison.

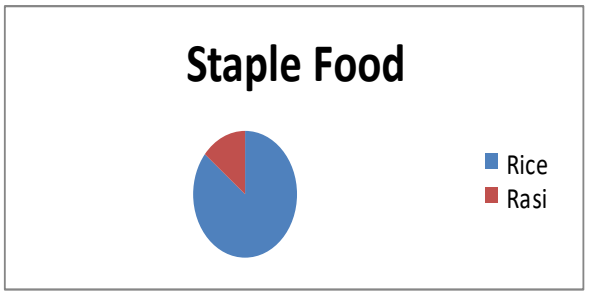

Figure 1. Comparison of Kampong Cireundeu Community's Staple Food Consumption
(Source: Processed from Primary Data, 2015)

Chronology of the transition period for staple food consumption in Kampong Cireundeu explained in Table 2.

Table 2. Period of Staple Food Consumption Pattern

Period	Consumption Pattern
Before 1918	The whole community consumed rice as their staple food
1918	Rice is difficult to obtain because the dried up of paddy fields while the rice supply from the Dutch government is complicated to obtain. Most people started to grow cassava and consume cassava, but it was not yet in the form of *a rasi* or granule. Some other communities are still able to consume rice
1918 - 1924	People are still searching method to process cassava as a staple food. Until finally, in 1924, the community managed to process cassava into *rasi*, a staple food made from cassava with a granule shape resembling rice.
1924 - 2005	Rice is still the leading staple food chosen by many people, but some people also consume *rasi*. This period, paddy fields were still planted with rice, which was passed down from generation to generation.
2005 - now	Landslides the Leuwigajah landfill dumps all of the rice fields owned so that there is no single paddy field that can be planted with rice in Kampong Cireundeu. People who consume rice obtained rice by buying

Source: Processed from Primary Data (2015)

Agriculture or Cassava Farming

The soil conditions in Cireundeu and surrounding areas include latosol and podsolic red and yellow soil types, with flat topography, bumpy to hilly (Diskopindagtan, 2009). With this type of soil, the dominant cassava cultivated by farmers is the *karikil (kastepe)* and *mangi* (Mahayana, 2011).

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The area of land commonly used for cassava and other types of crop cultivation by the Kampong Cireundeu community is around 25 hectares. Besides that, the land area along the hill starting from Pasir Panji, Bukit Jambul, Bukit Gajah Langu, Bukit Puncak Salam, Bukit Cimenteng to the borders of Batujajar District estimated at 800 hectares while the area used by community housing is around 5 hectares (Diskopindagtan, 2009).

The state of crops commonly cultivated in Cireundeu village are types of crops, including cassava, sweet potatoes, peanuts, and corn. The area of land used for cassava plants is around 25 Ha, for 3 Ha corn, while the peanut and sweet potato plants usually cultivated with intercropping systems. In the field of animal husbandry, the indigenous community of Kampong Cireundeu is seeking sheep and chickens. The most dominant livestock population in Kampong Cireundeu is sheep, which is around 380, while the chicken is only about 100 because the cassava wastes in the form of cassava peel and cassava leaves can be sheep's feed (Diskopindagtan, 2009).

B. Food System Resilience Dimension

Ecology Dimension

According to Vallee (2007), variables from the ecological dimension related to aspects of food availability are land potential or land use trends. Because most people in Kampong Cireundeu (85.9%) consume rice obtained by buying from several locations closest to Kampong Cireundeu, the land-use trends to be presented are from the Central Statistics Agency or Badan Pusat Statistik (BPS) of Cimahi.

Cimahi Selatan Subdistrict is a sub-district whose paddy fields rely on semi-technical irrigation with an area of 52 ha in 2012 and 2013, whereas in 2010 and 2011, only 35 ha. Dry-land used for the garden also decreased from 145 ha in 2003 to 71 ha in 2013. The area of dry land used for buildings and surrounding yards in South Cimahi District has decreased from 1,534 ha in the year 2003 became 1,025 ha in 2013. The decline used to increase the area of rice cultivation from 35 ha in 2003 to 106 ha in 2013 so that the harvested area for paddy rice also increased from 20 ha in 2003 to 114 ha in 2013. As for the results of rice production in 2003, South Cimahi District produced 1,020 quintals, which increased to 6,084 quintals in 2013 (BPS Kota Cimahi, 2015).

Land use in Kampong Cireundeu has been regulated by customary law. The top of the hill is referred to as *sangyang sirah*, often also referred to as a restricted area or *leuweung* ban. *Sangyang sirah* functions as a water catchment area that should not be disturbed, left according to the original. After the prohibited area, there is a buffer zone or *leuweung* cover. Buffer areas can only be opened in a limited manner. The foot of the hill is the area of cultivation, or local people called it with *leuweung baladahan*. The functions are as a residential and agricultural land cultivation land (Rahmat / KPLH Belantara Presentation cited by Mahayana, 2011).

The proportion of land use in Kampong Cireundeu varies and can be seen in Table 3.

Table 3. The Proportion of Land-Use in Kampong Cireundeu

No.	Types of Land Use	Area (Ha)	Percentage (%)
1.	Dried-up field	23,83	48,77
2.	Bush	18,02	36,88
3.	Garden	02,43	04,98
4.	Settlement	04,57	09,37
	Amount	48,86	100,00

Source: Mahayana (2011)

Nutritional Carrying Capacity

By knowing the nutritional carrying capacity, it can be seen how much a region's food needs can support the population without reducing the region's ability to provide food for the population in the future. Based on the results of a food footprint study conducted by Sofia (2014), the average food footprint value of Kampong Cireundeu land is 0.26638 ha. It meant that the productive land area needed / must be provided to meet the food consumption needs of Cireundeu Kampung residents is 0, 26638 ha/capita/year. Meanwhile, with the average value of the *rasi* consumption of community reaching 85.15 kg/capita/year, the ecological footprint value of the *rasi* is 3.58 m^2/capita/year so that the dry land needs to meet *rasi* needs per one resident of Kampong Cireundeu is covering an area of 304.84 m^2 / capita/year (Sofia, 2014). For the assessment of dry land bio-capacity, with a total of 25 ha (Diskopindagtan, 2009), the land planted with cassava, while the number of people who consumed *rasi* was 106 people, the total dry land requirement for *rasi* production was 3.23 ha. This figure shows that the dry land for cassava has ecological reserve status where this condition indicates several bio-capacities in nature that are reserved to sustain future life or have a sustainable status (Rusli et al., 2009 cited by Sofia, 2014).

To meet the *rasi* needs as much as 85.15 kg/capita/year, the required land area is 0.03050 ha/capita/year, where the land area requirement is greater than the area of land needed for people who consume 0.02439 ha of rice. / capita / year. This is because cassava consumed by the community is

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cassava consumed in the form of *rasi* with a low yield value of 14% so that the land requirement for meeting cassava staples (*rasi*) is high (Sofia, 2014).

According to Sofia (2014), overall, the average value of the food footprint of people who consume *rasi* is higher (6.87681 ha) than people who consume rice (5.54671 ha). However, generally food safety in Kelurahan Leuwigajah, with the availability of agricultural land covering an area of 25 ha and a population of 39,301 people (Kelurahan Leuwigajah, 2013), is inevitable that residents of Kampong Cireundeu who are part of the population of Leuwigajah meet their food needs from other regions (Sofia, 2014). The high conversion of agricultural land to settlements in several regions in Indonesia also occurred in Cimahi. Based on data from BPS West Java Province in 2012 cited by Sofia (2014), the area of agricultural land in Cimahi was 625 ha with a population of 553,592 people in 2012 so that the resulting bio-capacity value was 0.00113 ha/person indicating that local land agricultural production will not be able to meet the consumption needs of residents of Cimahi.

Economy Dimension

According to Vallee (2007), the economic dimension variable related to access to food is the level of welfare where the type of work and the level of income of the community are the determinants. The types of work of the majority of the people of Kampong Cireundeu are casual daily laborers (151 households) and private employees/factory workers (92 households). Employment as a casual daily laborer provides an irregular income level for the community ranging from Rp 30,000 - 50,000 per day while jobs as permanent employees/factory workers provide income ranging from Rp 1,000,000 - Rp 4,000,000 per month.

Based on the respondent data collected by researchers from 79 families, obtained the income level, as shown in table 4.

Table 4. Income Level of Respondents

No	Income (Rp/capita/month)	Rice Staple Food Respondents		Cassava Staple Food Respondents	
		n	%	n	%
1.	< 280.155	20	10	9	0
2.	281.000 - 549.999	16	75	18	63,46
3.	550.000 - 824.999	3	7,5	7	21,15
4.	825.000 - 1.099.999	0	5	3	9,61
5.	> 1.100.000	0	2,5	3	5,77
	Total	39	100	40	100

Source: Processed from Researcher Data (2015)

Table 4 described the level of income of respondents with rice staple food, mostly has an income below Rp. 280,155/capita/month where this income category is below the 2011 Cimahi poverty line figure of Rp. 280,155/capita/month (Badan Pusat Statistik Provinsi Jawa Barat, 2012). Whereas most respondents of cassava staple foods have an income ranging from Rp. 281,000 - Rp. 549,999/capita/month.

The better level of income of people who consume cassava is caused by the staple food that is obtained mostly from the garden itself. However, the yields from the garden are intended to meet the family's food needs (subsistence) so that it does not provide high economical added value, and the cassava cultivation business is also experiencing obstacles (Mahayana, 2011). It can be seen from the registration of 177 Head of Families (HoF) or 46.1% of 384 HoF being recipients of the Raskin (Rice for Poor Family) program from the government.

The community usually processes cassava into tapioca flour and *rasi*. 100 kilograms of cassava can produce 15 kilograms (15%) tapioca flour and 30 kilograms (30%) into *rasi* while the rest experience shrinkage during drying (Mahayana, 2011). The low level of income of most people in Kampong Cireundeu will significantly affect people's food access. There are several assistance programs to ease the food access provided by several parties, including the government, academics, and other organizations. The support provided by the government of Cimahi in supporting Food Security in Kampong Cireundeu is as released by the Diskopindagtan listed in Table 5.

Table 5. Government Food Security Program

No	Program Field	Program Illustration	Results
1	Livestock Sector	a. Livestock counseling is carried out continuously about the way of cultivation/fulfilling the ten rules of business and health b. Vaccination and medication assistance c. Livestock assistance and agricultural production facilities	In 2015 the total sheep population was 380 and had been revolving.

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		through the 2005 deconcentration fund used for purchasing: d. 60 lambs and six rams of sheep • 30 male sheep for fattening	
2.	Agriculture Sector	a. Agricultural counseling by the THLTB in the field of agriculture and the Plant Eradication Organism Eradication Officer b. Area Demographics Program by planting cassava in an area of 35 ha c. Formation of Farmer Groups that utilize 35 hectares of land	Cassava production increased from 576 tons/ha (2013) and increased to 1134 tons/ha in 2014.
3.	Agroindustry Sector	a. HACCP Counseling, GMP and Packaging Training b. Some assistance: • Cassava Sieve Machine • Dryer • Cassava Smoothing Machine • Sealer tool • Plastic packaging	The community is running a culinary program made from cassava (tapioca flour), which is under the auspices of the Customary Institution.

Source: Diskopindagtan (2009)

Referring to the Local Economic Development (LED) theory, some of the government's policies still prioritize comparative advantages based on physical assets to support Food Security in Kampong Cireundeu. The policies should look at competitive advantages based on environmental quality, which ultimately leads to social development and networking (Tishaeni, 2010). Plus, the *Raskin* (Rice for Poor Family) policy includes some people who only consume *rasi* as recipients of *Raskin*. Provision of *Raskin* assistance for people who consume *rasi* is undoubtedly not on target even though this assistance usually used by neighbors or relatives who consume rice.

Consumption Dimension

The people in Kampong Cireundeu who chose cassava as their staple food amounted to 54 families or as many as 106 people, the majority aged 41-60 years (37 people). Based on the results of Sofia's research (2014), the average consumption of *"Rasi"* in 79 people of Kampong Cireundeu who consumed *rasi* was 85.15 kg/capita/year so that it needed a dry land area of 304.84 m²/capita/year to meet the needs of *rasi* per one person resident of Kampong Cireundeu. Meanwhile, the average rice consumption of 160 people in Kampong Cireundeu who consumes rice is 91.7 kg/capita/year, so that it takes a land area of 229.25 m²/capita/year to meet the needs of rice per one resident of Kampung Cireundeu.

People in Kampong Cireundeu, whose staple food is rice receives rice by buying, and some of them receive it from the assistance of the 'Raskin' Government program (Rice for the Poor). The amount of cassava consumption in Cireundeu village in one year is 31,860 kg/year. The amount of r*asi* production per person is 1,291,389 kg/year. With the potential consumption of cassava at 14,630 kg/year, the level of sufficiency in meeting the *rasi* needs of 54 households in Kampong Cireundeu, is sufficient (Mahayana, 2011).

The choice of carbohydrate sources other than *rasi* is the most extensive processed flour products such as noodles (107.57 kcal/cap/day), then other processed flour (71.30 kcal/cap/day), tapioca flour preparations (70.71 kcal/cap/day) also bread (68.05 kcal/cap/day), cassava (38.27 kcal/cap/day) and several other types of tubers. The processed tapioca flour usually consumed by the public, such as opaque, crackers, dumplings, pastries, and some other derivative products (Sofia, 2014).

For the people of Kampong Cireundeu, who only consume r*asi*, the difference in the price of rice and *rasi* is quite high. The price range of rice is Rp 8,000 - Rp 10,000/kg and *rasi* Rp 5,000/kg, is used to buy more diverse types of side dishes as an addition to protein intake. It causes the Protein Adequacy Level of people who only consume *rasi* better (82.54%) than those who consume rice (76.56%) (Sofia, 2014). Regarding food allocation at the household level in Kampong Cireundeu, all respondents answered that men and toddlers prioritized to get greater diversity and quantity of food. Men considered to be the primary breadwinners, and toddlers need better nutrition for growth and development.

Social Dimension

According to Vallee (2007), the social dimension of the Food Security System related to food stability is a social safety net. Kampong Cireundeu is known as the Food Security Tourism Village (DEWITAPA), which was inaugurated through the Decree of Mayor Cimahi No. 501/Kep 208/BPMPPKB/2010 concerning Food Self-Reliance Village. The tradition handed down from generation to generation consumes *rasi* by 14.1% of the people of Cireundeu, and the ability to meet their own basic food needs causes the Government of Cimahi issued the Decree.

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The management of agriculture and livestock in Kampong Cireundeu more dominated by community groups that consume *rasi* that under the Customary Institutions in Kampong Cireundeu. Unfortunately, there is no form of social safety nets to store food for an extended period in Kampong Cireundeu. Initially, the ancestors kept rice in a barrel as a form of "food security". Rice, like food, must always be at home. In the rice produced was sold and a small portion set aside in the barrel, but now this is not done anymore (Tishaeni, 2010). The transition from staple food from rice to *rasi* also has the consequence that *rasi* unable stored for long periods. Maximum storage is usually only about 6 (six) months. So that food reserves for emergencies such as natural disasters or dried-up season are not available in Kampong Cireundeu. Farmers only manage cropping patterns in their fields so that the harvest can be adjusted to their consumption needs and comply with established spatial rules. So far, the supply of local staple food supplies that are the mainstay of the community, and the government is the only rice stock in the Social Service, the National Logistics Agency, and the National Disaster Management Agency (Badan Nasional Penanggulangan Bencana) that can be used in disaster conditions.

CONCLUSION

As the conclusions from the results of the analysis and discussion of research on the Food Security System in Kampong Cireundeu, it concluded that the majority population consumes rice. The existing land entirely planted with cassava and other crops. Analysis of the ecological dimension, which is related to food availability, land-use change tendency also occurs in Kampong Cireundeu as population growth is getting higher. The fulfilment of community food needs in Kampong Cireundeu certainly filled from outside Kampong Cireundeu. Analysis from the economic dimension, the majority of job choices made by the people of Kampong Cireundeu are casual daily laborers who do not provide certainty for each individual to continue earning income. Besides, the work choices that are also widely chosen by the people of Kampong Cireundeu are factory workers. With the level of education of the majority of people who have only graduated from elementary and junior high school, it is difficult for people who work as factory workers to get adequate income. The low level of income of the majority of people in Kampong Cireundeu can lead to the vulnerability of people's access to food.

Moreover, the dependence of the community on food supply from outside, causing the level of vulnerability of people to access food, became higher. Analysis of the dimensions of consumption, the average value of the Energy Adequacy Level (EAL) of staple rice, and the cassava staple food are in the healthy category. For the Protein Adequacy Level (PAL), the average value of the rice staple food PAL was in the medium level deficit category. The PAL value of cassava staple food was in the middle deficit category. The food expectation score (FES) of individual rice food and cassava staple food was below the ideal FES score. Besides, the consumption patterns of the people in Kampong Cireundeu who prefer to substitute their staple foods with processed wheat products, which are imported foodstuffs, cause the supply of food consumed by the people in Kampong Cireundeu to be increasingly dependent from outside Kampong Ciruendeu area. Analysis of the Social Dimension, which is related to food stability, the social structure of the community of Cireundeu Village so far has no social safety net that can store staple food for use in emergencies. The more people are open to changes from the outside. The selection of cassava as a staple food for some individuals in Kampong Cireundeu can increase the resilience of the food system's resilience.

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