

Local Food Crops and the Poor (The Case of the Three Geographical Regions of Kulon Progo Regency)

Submitted: 3 March 2014 Accepted: 30 June 2014

Dodi Widiyanto¹, R. Rijanta², Toekidjo³

^{1, 2, 3} Researcher at the Centre for Studies on Regional Development Planning and Lecturer at the Faculty of Geography, Gadjah Mada University, Sekip M2, Jl. Kemuning, Yogyakarta 55281, Indonesia. ¹dodi_ppw@yahoo.com

Abstract

It is believed that local food crops are available widely in rural regions. However, not all of the people consume them. The facts also show that local food crops are placed as secondary sources of foodstuff. This research aims at (1) describing the profile of local food crops consumed by the poor rural households and 2) exploring causes and mechanism of the poor rural household in maintaining local food crops as their food sources in the three different geographical regions of Kulon Progo Regency, namely the upland region, the transitional region, and the lowland region of Kulon Progo Regency. A household survey is conducted to achieve the above mentioned objectives. Respondents of this research are chosen purposively from the poor households' data as listed by the Kulon Progo Regional Planning Board to represent the three regions in the regency. Three districts in the regency are selected to represent the three types of regions respectively, i.e. Samigaluh, Pengasih, and Lendah. A questionnaire is distributed in order to collect the data from the selected household respondents. The findings of this research are (1) there are various kinds of local food crops that were consumed by the respondents from three different geographical regions. The researchers collected that there were 36 types of local food totally from these three geographical regions, (2) there were also several motives that were important to be described in order to explained the reason why the respondents processed local food crops such as to be sold or to be consumed by themselves, (3) spatially, there are a specific pattern of harvested local food crops based on the respondents perceptions in three geographical areas: (i) based on nature, and (ii) based on human decision, (4) there were also various methods of utilisation local food crops, such as boiled, fried, steamed, cooked into intermediate products, or cooked into final commodities that were ready to be consumed.

Keywords: background, geographical regions, harvested pattern, local food crops, poor households

1. Introduction

In Indonesia, there are various kind of biodiversity. For example, in Kalimantan and Papua there are more than 5,000 species meanwhile in Java there are up to 3,000 species (Kompas 22/5/2010 in Gardjito, Djuwardi, and Harmayani, 2013:12-13). It is familiar that there are alternative food in Java such as tiwul or sagu in Papua or Mollucas except rice as the main food consumption in Indonesia. In Kulon Progo, there are various local food that is consuming by the people. Rijanta et. al (2013) mentioned that there were 49 types of local food that spread widely in this regency. In fact, the researchers found that there were 36 kinds of local food that could be identified during this research (see note in table 2 and 3).

Based on the definition from Republik Indonesia Act No. 18 2012 about Food (UU No. 18 Tahun 2012 tentang Pangan), food diversification is an effort how to increase the availability and variation the food consumption, health, and based on the local potents. Meanwhile, local food in this research is defined as a food that is consumed by the local people based on its potents and local wisdoms. Furthermore, Rijanta et al (2013) also stated that local food crops are usually neglected due to several factors such as technical and policy and structural problems, limited knowledge how to process, a common view that local food crops are placed as the secondary products or alternative products are some examples of these difficulties in consuming local food. In addition, there is a jargon that "belum makan jika belum makan nasi" (Isma'il, 2012). Moreover, today there are also foreign and fast food that are offered in restaurants.

This study was conducted by choosing three different geographical regions that reflected the upland, transitional, and lowland regions. It is also expected that this research will give a contribution in describing and explaining what kinds of local food crops that distribute widely in the research area. Study from Darmawan (2011:3) in his literature review from previous researchers stated that the main problems of household food security were 1) food availability and distribution, 2) purchasing power parity, and) 3)

social and cultural aspects. Finally, the behaviour of the people, especially the poor household how to manage, utilise these kinds of local food crops are important to be explored.

Therefore, this paper will explore is there any questioned about the people who consume local food, especially the low level income. The aims of this paper are (1) describing the profile of local food crops consumed by the poor rural households and 2) exploring causes and mechanism of the poor rural household in maintaining local food crops as their food sources in the three different geographical regions of Kulon Progo Regency, namely the upland region, the transitional region, and the lowland region of Kulon Progo Regency.

2. Method

Firstly, the researchers designed a concept that the location of the research should reflect a different geographical areas. After a discussion with the head of the Kulon Progo Planning Board, three districts were chosen: Samigaluh, Pengasih, and Lendah district. In every district, several villages were also chosen based on their geographical areas features also. For Samigaluh District, the villages that were chosen as the research location were Kebonharjo, Gerbosari, Sidoharjo, Pagerharjo. Meanwhile, the villages such as Tawangsari, Sendangsari, Sidomulyo, and Karangsari were located administratively in Pengasih District. Finally, Ngentakrejo, Sidorejo, Bumirejo, and Jatirejo were the villages from Lendah District (see figure 1)

Secondly, the respondents were selected from the list of the poor households who were collected by Kulon Progo Planning Board. Only the head of household who lives with their wife, child(ren) and/or their parents/parents in law (nuclear or extended family) chose as the respondents. Purposively, the respondents were collected from the three districts. From every district, researchers were collected 40 respondents. So, the total number of respondents for this research were 120 respondents.

Finally, a questionnaire was distributed to the respondents. The information that was collected from the respondents' perception then analysed quantitatively and qualitatively.

3. Profile of the Respondents in the Three Geographical Areas

There are 120 respondents who were willing to give their responds according to the questions that were raised by the researchers. Based on the table 1, it can be seen that the respondents were varied in their ages. Relatively, the age of the respondent were 45 years old, except the average age of the respondent who were living in Ngentakrejo village (36 years old). The family members' of the respondents also varied from 3 to 5 people. In average, the respondents also have a meal three times a day, except in Kebonharjo and Gerbosari who are usually eating twice a day averagely. The menu that consumed by the respondents are rice and side dish, rice and vegetables and sometimes they also eat *krowodan*. *Krowodan* means only eating vegetables, and/or fruits, or tubers. It tells that the respondents dependence to rice is still strong, only in two villages have *krowodan* consumption pattern (see table 1).

Furthermore, previous information from other experts, for instance Rijanta et al. (2013) who mentioned that local food crops are neglected by younger generation was proved here. Because as can be seen from table 1, in Ngentakrejo which the respondents' average age was 36 years old also was the youngest group who consume local food compare to other groups who were more than 45 year old.

Village	illage Average age Average number of Nu family members		Number of have a meal	Eating habits
Samigaluh Distric	t			
Kebonharjo	48	3	2	Rice and side dish, rice and vegetables
Gerbosari	59	5	2	Rice and side dish
Sidoharjo	51	5	3	Rice, side dish and vegetables
Pagerharjo	48	4	3	Rice, side dish and vegetables
Pengasih District				
Tawangsari	52	5	3	Rice, vegetables, and side dishes
Sendangsari	50	4	3	Rice and side dishes
Sidomulyo	53	4	3	Rice, vegetables, and side dishes
Karangsari	59	4	3	Rice and side dishes
Lendah District				
Ngentakrejo	36	4	3	Rice, vegetables, sometimes krowodan
Sidorejo	51	5	3	Rice and vegetables
Bumirejo	47	4	3	Rice, side dishes and sometimes <i>krowodan</i>

Table 1: The Respondents' Profil	Table	he Respondents	' Profile
----------------------------------	-------	----------------	-----------

Village	Average age	Average number of family members	Number of have a meal	Eating habits
Jatirejo	47	4	3	Rice, vegetables, and side dishes

Source: Primary Data, 2013



Figure 1. Research Area Map

Local Food Crops and the Poor

The respondents also have variation of land use in order to support their livelihood, namely garden, dry field, and rice field. Three types of that land use are planted a variation of local food crops besides the main crops. As can be seen in figure 2, there are many kinds of local food crops that have been planted by the respondents (please see at the notes of table 2 below). Most of them are grown at the garden, followed by at the dry field and only few of them are planted at the rice field. Different types of local food crops were more planted at the Kebonharjo which represents the upland region and Ngentakrejo that represent the transition region gardens. Meanwhile many kinds of local food crops are grown more at the Sidoharjo and Kebonharjo dry field that are located in upland area. Besides that, local food crops that are planted in rice field are found more varied at the Sidoharjo and Jatirejo based on the respondents' perception.



Figure 2. Number Of Planted Local Food Crops At The Three Different Geographical Areas (Primary Data Analysis, 2013)

4. Types of Local Food Crops Planted By the Respondents and Their Utilisation

Totally, there were 36 kinds of local food crops that are grown by the respondents from the three geographical regions. As can be seen from the table 2, there are various way in managing local food crops. These can be used to fulfill daily food. These can also be sold in raw products or others food that were ready to be consumed. For example, ganyong can be cooked into dawet or cendol, garut can also be cooked into emping. However, these local food crops are readily to be eaten only by common methods in cooking such as boiled, fried, or steam. Based on the information that is provided by table 2, it shows a potential support for the poor household in three diferent geographical regions to fulfill their needs, especially food. These methods of utilisation also be practiced to reduce poverty. As stated by Sayogyo (1993), one key aspect to reduce poverty was how to maximise the resources that are available. It is believed that wheter a poor household has a willingness to cultivate their land and utilise the products they will get additional income. The practice of the respondents can also reflected in table 4, where some of local food crops were sold by them, not only in raw product but also in intermediate products or others final product which were ready to be consumed.

Based on the harvested condition, there are two types of harvested local food crops : natural and the respondent decisions. Natural harvested type is a tipology of local food crops that are harvested based on the natural cycle. It means that the local food crops can be harvested seasonally, annualy, or in not necessarily condition. So, the natural contribution is perceive importantly. On contrary, the second tipology on harvested the local food crops is considered by the respondents' need (decision). Although the local food crops are fruitfull but the respondents sometimes pretend to harvest their plants. As presented at table 3, in the upland area, most of the local food crops are planted based on their nature. However, a slightly pattern of harvested can be seen from the respondents' practiced who are living at the transitional and lowland region. They combine in harvesting of their local food crops not only based on its natural

endowment but also considered their needs. A specific information of in what months, a local food crop usually harvested were also given by the respondents (see table 3).

Based on the different typology of harvested the local food crops, it can be seen that there were a specific pattern based on the respondents' perception in the three different geographical areas. In the upland areas, the respondents who live in the upland area tend to harvest their crops depend on the nature. It can be seen that almost all of the local food crops were harvested at the seasonal, annual, not necessarily, drought and rainy season. So it supports Rijanta et al's statement (2013) which were mentioned that the availability of local food crops are depended to the season. Meanwhile, in the transition region, local food crops are available in the drough and rainy season, specific months and anytime. So in this area, based on the respondents' information the availability of the local food crops not only depend on the season, such as cassava, (young) jackfruit, winged bean, coconut, banana, and bread fruit. Lastly, in the lowland region, the availability of local food crops are mostly available in the drough season, a specific month, and anytime.

Villages	Planted Local Food Crops and the Utilisation of them in Garden	Planted Local Food Crops and the Utilisation of them in Dry Field	Planted Local Food Crops and the Utilisation of them in Rice Field
	Sami	igaluh District	•
Kebonharjo	1→Corn rice,2, 3, 6, 7, 8, 9, 10→ boiled, 5→porridge, 5→dawet, 7→gaplek,7→ tiwul, 1→lempeng lopak, 9, 10→ fried, 11,14,19→cooked vegetables, 13, 15→tempe, 34→pelas bongko	2, 6, 7, 9, 23→ boiled, 6, 7, 23→ steam, 9→ dawet, 11, 14→ cooked vegetables	1→ Corn rice, 1→ nasi liwet, 1→ nasi bongkel, 24→ rice, 7, 10→ boiled, 10→ fried, 7→ tiwul, 7→ gaplek, 7→ oyek, 10→ steam, 14, 19→ cooked vegetables
Gerbosari	14→Cooked vegetables 3, 35, 6, 8, 10,15, 25 → consumed	2, 3, 4, 7, 10, $35 \rightarrow$ boiled, 9 \rightarrow cendol, $7 \rightarrow$ gethuk, $7 \rightarrow$ fried	No information based on the respondents' perception
Sidoharjo	10, 11, 13, 14, 20, $36 \rightarrow \text{Cooked}$ vegetables, 1, 2, 6, 7, 8, 10, 20, $25 \rightarrow \text{boiled}$, $20 \rightarrow \text{fried}$, 10, $20 \rightarrow gethuk$, $10 \rightarrow criping$, $4 \rightarrow \text{krecek}$ gadung, $4 \rightarrow \text{gaplek}$, $4 \rightarrow \text{kripik}$ mentah siap goreng, $5 \rightarrow \text{cendol}$, $5 \rightarrow \text{ porridge}$, $13 \rightarrow \text{tempe}$	1→corn rice, 1, 2, 3, 5, 6, 7, 8, 9, 10, 25, 35→boiled, 10, 11, 14→cooked vegetables, 7, 8→ fried, 10→ gethuk, 8→ criping, 2, 3→ steam, 4→ keripik, 4→ krecek gadung, 4→ gaplek, 5→porridge, 7→.diokrok, 9→dawet, 13→tempe	1→ Corn rice, 7, 10→ boiled,7→ fried, 14→ cooked vegetables, 13, 15→ tempe, 10→ criping, 9→ dawet
Pagerharjo	11→Cooked vegetables, 5, 6, 7, 8, 10, 11→boiled, 7, 8, 10→fried, 5, 10→keripik, 5,6,9→ powdery starch, 7→tiwul, 7→lemet	2, 6, 7, 8, 9, 10, 14→boiled, 11, 14→cooked vegetables, 7, 8, 10→fried, 6, 9, 10→ flour, 4, 10→keripik, 13, 24→ camilan, 23→ gethuk	7, 8, 10 boiled, 7, 8, 10→fried
		gasih District	
Tawangsari	7→boiled, 11→cooked vegetabled,15→ sold, 17→fruit	1, 5, 26→sold	24→ Consumed daily, 1, 28→ changed into rice, 33→ sold, 7→ gaplek, 7→ krecek, 7→ arem-arem, 7→ combro, 15→ tempe benguk
Sendangsari	1Corn rice, 15 <i>→ krowodan</i> , 7 <i>→</i> boiled, 15 <i>→ tempe benguk</i>	5→sold	24→Consumed daily, 1→corn rice
Sidomulyo	2, 3, 4, 5, 7, $8 \rightarrow Boiled, 7, 8 \rightarrow$ fried, 11 \rightarrow cooked vegetables, 15 \rightarrow sold, 16 \rightarrow coconut milk, 16 \rightarrow pentho	1, 2, 3, 4, 5, 6, 7, 8, 9, 10→boiled, 4→ <i>keripik</i> , 25→cooked vegetables, 15→ <i>tempe benguk</i> , 7, 8→fried	24→Consumed daily, 1→corn rice
Karangsari	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 20, 35→Boiled, $7 \rightarrow lemet, 15 \rightarrow tempe,$ $13 \rightarrow tempe koro, 14, 16,$ $20 \rightarrow cooked vegetables, 16, 17 \rightarrow$ sold	5, 9→boiled, 15 <i>→tempe</i> benguk	24→ Consumed daily, 1→sold <i>pipilan, 11, 32→</i> sold, 11→ cooked vegetables, 7→ boiled, 7→ fried
N		ndah District	
Ngentakrejo	2, 3, 4, 7→boiled, 11→sold, 16, 17→cooked vegetables	1, $16 \rightarrow \text{sold}, 3$, $7 \rightarrow \text{ boiled}, 5 \rightarrow emping garut, 11, 16 \rightarrow \text{cooked}$ vegetables, $15 \rightarrow tempe$	24→Consumed daily,1→ sold pipilan, 1, 27, 33→sold, 6, 7, 8→boiled
Sidorejo	2, 3, 4, 7, 9, 10, 11, 20, $35 \rightarrow \text{boiled}$, $5 \rightarrow \text{emping}$ $garut, 13 \rightarrow \text{tempe}$ koro, $14 \rightarrow \text{cooked}$ vegetables, $16 \rightarrow \text{sold}$	No information based on the respondents' perception	24→Daily consumed, 1, 7, 8→sold raw, 1, 7, 10→boiled, 11→ cooked vegetables, 7→fried

Table 2: Planted and Local Food Crops Utilisation

Villages		nted Local Food the Utilisation of Garden			Planted Lo and the Ut in		n of them	and the	e Utilis	I Food Crops ation of them e Field
Bumirejo		chicken feed, boiled, 7→ growo	4,5, I 7 → ki	· · ·	1, 2, 3, 7 tempe ben 17→sold		,	24→cons 1→chick 33→sold 10→cool	en fee I, 6,	d, 1 \rightarrow corn rice, 7 \rightarrow boiled,
Jatirejo	3, 7 -) 7 -) reg 11-	Chicken feed, 2, 3 7, 9→fried, 5- emping, cemplon, redek,7→ lemei >cooked vegetab	→ ce 7- 7.→ 5, 6,	riping, →glidi, bingel 10,	4→ keripik	de sete ? s		24→Con 28→sold		daily,
Note1: the inform Note2:	nation ti	nat was provided a	above	based	on the respon	idents' p	perceptions			
1. Corn (jagung)	9.	Edible Canna (Ganyong)	17.	Banai	na (Pisang)	25.	Black Pot (Kentang		33.	Chili (Lombok)
2. Tuber (uwi)	10.	Taro (Talas)	18.	Medic (Tana	cinal Plant Iman Jamu)	26.	Green Be (Kacang I	an	34.	Gude
3. Birch Rind Yam (Gembili)	11.	Young Jackfruit (Gori/ Nangka)	19.	0	ables Ir-sayuran)	27.	Honeydev (Melon)	v	35.	Gembolo
4. Prasina (Gadung)	12.	Sorghum (Sorgum)	20.	Breac (Suku		28.	Soybean	(Kedelai)	36.	Jipang
5. Arrowroot (Garut)	13.	Koro	21.	Clove	(Cengkeh)	29.	Rambutar	า		
 Elephant's Foot (Suweg) 	14.	Winged Bean (Kecipir)	22.	Cocoa	a (Kakao)	30.	Longan (Kelengke	eng)		
7. Cassava (Ubi Kayu)	15.	Surly (Benguk)	23.	Bote		31.	Papaya (F	Pepaya)		
8. Sweet Potato (Ubi Jalar)	16.	Coconut (Kelapa)	24.	Paddy	y (Padi)	32.	Peanut Tanah)	(Kacang		

Table 3: Seasonal Crops

No	Villages	Seasonal	Annual	Not Necessarily	Drought Season	Rainy Season	When it will be consum ed	Ripe Tree	Months	Anytime	Land Use
Sami	galuh District	(The Upland									_
			2, 4, 6, 7, 9, 11, 20, 23	7, 11, 14, 17, 34							Garden
1	Kebonharjo	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18	2, 11	7, 11, 17, 19				12			Dry Field
		7		7, 10, 17, 19	1, 14, 24	24					Rice Field
							2, 4, 9				Garden
2	Gerbosari				3, 10, 35		7, 13, 14, 15, 25				Dry Field
											Rice Field
		11			2, 3, 4, 5, 6, 7, 8, 9, 10, 35	6, 9, 13, 14, 20, 25					Garden
3	Sidoharjo				1, 2, 4, 5, 6, 7, 10, 11, 20, 25, 36	6, 7, 13, 14					Dry Field
		11			1, 7, 9, 10, 13, 14, 15	1, 9					Rice Field
4	Pagerharjo			2, 4, 6, 7, 8, 9, 10, 11, 13, 14, 34		6					Garden

No	Villages	Seasonal	Annual	Not Necessarily	Drought Season	Rainy Season	When it will be consum ed	Ripe Tree	Months	Anytime	Land Use
				2, 4, 5, 7, 8, 9, 10, 11		6					Dry Field
				7, 8, 10							Rice Field
Peng	asih District (The Transitio	nal Regior	າ)	1				15(8)	7, 11, 17	Garden
5	Tawangsari				26				1(11), 15(8),16 (everym onth)	11, 14, 16, 20	Dry Field
					7, 15, 27, 33	1, 24, 28					Rice Field
6	Sendang-								1(1)(2), 6(11), 7(8)(9), 15(1)		Garden
0	sari			5							Dry Field
					1	24					Rice Field
						2, 3, 4, 5, 7, 8, 11, 15, 29, 30, 31				16, 17	Garden
7	Sidomulyo			1	2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 25						Dry Field
					1	24					Rice Field
8	Karangsari				1	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 20, 35			17 (everym onth)		Garden
				5, 9	15						Dry Field
					1, 32	7, 11, 24					Rice Field
Lend	ah District (Th	e Lowland R	egion)								Ticia
				11, 17					2(8), 3(8), 4(8), 7(8)		Garden
9	Ngentak- rejo				15				1(8), 3(8), 5(8), 16(every month)	7,11	Dry Field
					6, 7, 8				1(11)(12), 24(8)(9)(11)(12), 27(6)(10) 33(10)		Rice Field
				17	2, 3, 4, 5, 9, 10, 35				7(5)(10), 16(every month)	11, 20	Garden
10	Sidorejo										Dry Field
				11	1, 33	24			7(5)(10), 8(5)(10)		Rice Field
11	Bumirejo				4				1(8), 6(9), 7(10), 9(9)		Garden

No	Villages	Seasonal	Annual	Not Necessarily	Drought Season	Rainy Season	When it will be consum ed	Ripe Tree	Months	Anytime	Land Use
									1(80, 2(8), 3(8), 7(10), 15(7)	17	Dry Field
					9, 33	24			1(7)(10), 6(7), 7(7)		Rice Field
12	Jatirejo				2, 5, 9				1(90, 3(8), 6(8), 7(8), 10(8)	11	Garden
									4(7)		Dry Field
									24(5)(12), 28(7)		Rice Field

Name of Local Food Crops

Name of Local	Food Cro	ops									
 Corn (jagung) 	9.	Edible Canna (Ganyong)	17.	Banana	a (Pisang)	25.	Black Pot (Kentang		33.	Chili (Lombok)
2. Tuber (uwi)	10.	Taro (Talas)	18.	Medicir (Tanam	nal Pl nan Jamu		26.	Green Be (Kacang		34.	Gude
3. Birch Rind Yam (Gembili)	11.	Young Jackfruit (Gori/ Nangka)	19.	Vegeta			27.	Honeyde (Melon)	• •	35.	Gembolo
 Prasina (Gadung) 	12.	Sorghum (Sorgum)	20.	Bread (Sukun		ruit	28.	Soybean	(Kedelai)	36.	Jipang
5. Arrowroot (Garut)	13.	Koro	21.	•	, Cengkeh	n)	29.	Rambuta	n		
6. Elephánt's Foot (Suweg)	14.	Winged Bean (Kecipir)	22.	Cocoa	(Kakao)		30.	Longan (Kelengke	eng)		
7. Cassava (Ubi Kayu)	15.	Surly (Benguk)	23.	Bote			31.	Papaya (Pepaya)		
8. Sweet Potato (Ubi Jalar)	16.	Coconut (Kelapa)	24.	Paddy	(Padi)		32.	Peanut Tanah)	(Kacang		
Months											
(1) January (7) July	(2) Feb (8) Aug		/larch Septem		(4) Apri (10) Oct			(5) May (11) Nov	ember	• • •	June) December

5. Home Industry as the Additional Revenue

Rural industry can be seen as a part of rural diversification (Prabowo, 1995). Various local food crops are having a value added. One key aspect to reduce poverty in rural areas is developing home industry. By implementing a home industry (small scale rural industry), it is believed that this method will give additional income for the rural people. However, different empirical result from Suryana and Pasandaran (1993) stated that the contribution of the home industry in rural area was only 2% from the total rural household income. In addition, Rijanta et al (2013) stated that there were several constraints regarding of local food crops economic value for example 1) the limitation of processing knowledge, 2) it is believed that the market capacity of local food crops still limited. So, it is interesting to discuss further what kind of the processing in this research area, especially to give an additional income to the poor. The information that was collected from the respondents told that there were commodities which have a potential value such as corn, arrowroot, and young jackfruit and also other local food crops as can be seen in table 4.

There are two types of the respondents practiced regarding local food crops: (1) sold raw or no processed, and (2) processed local food crops. Most of the local food crops in upland, transitional, and lowland region are sold raw or no processed. Processed local food crops sold in two different methods, firstly by a simple technology such as dipipil, and secondly is transformed into intermediate food or a food that is ready to be eaten. Moreover, the relative price market was gained by the respondents when they sold their local food crops commodities after processed. For example, arrowroot which waschanged into emping garut is relatively had a competitive price: Rp. 22.000.- up to Rp.25.000,- per kg rather than sold it in a raw condition which was only valued Rp. 1.000,- until Rp. 2.000,- per kg. In addition, another processed product from edible canna (ganyong) when it was processed into keripik the price was Rp. 20.000,- per kg (see table 4).

		Kecamatan Samigaluh	
Village	Types of local food crops	Home industry processing	Value (Rp)
Kebonharjo	corn	Sold raw	2500/kg
Gerbosari	corn	Sold raw	2000/kg
Sidoharjo	corn	Sold raw	3000/kg
,	Arrowroot (garut)	Sold raw	1000/kg
	koro	Sold raw	8000/kg
	Prasina (gadung)	gaplek	3000/kg
Pagerharjo	corn	Sold in intermediate food	
· · ·		Kecamatan Pengasih	
Village	Types of local food crops	Home industry processing	Value (Rp)
Tawangsari	Surly (Benguk)	Tempe benguk	200/pieces
	cassava	Combro	400/pieces
	ouoouvu	Arem-arem	400/pieces
		Alemaich	Sometimes higher, sometimes
	soybean	No processed	lower price
	banana	No processed	40000/tandan
Condonana			40000/tandan
Sendangsari	No information based on the r		4500///
Sidomulyo	cassava	No processed	1500/Kg
	cassava	No processed	1500/Kg
	corn	Dipipil	2500/Kg
Karangsari	Surly (Benguk)	Tempe benguk	20000/Kg; 200/pieces
	corn	Dipipil	2000/Kg
	Young jackfruit		
	(Gori/nangka)	No processed	20000 (big), 10000 (smalll)
	coconut	No processed	2500/pieces
		Kecamatan Lendah	•
Village	Types of local food crops	Home industry processing	Value (Rp)
Ngentakrejo			
o ,	Corn	Dipipil	2500/Kg
	Corn		
	Corn Long bean	No processed	2000/bundle
	Corn Long bean coconut		
	Corn Long bean coconut Young Jackfruit	No processed No processed	2000/bundle 2000/pieces
	Corn Long bean coconut Young Jackfruit (Gori/nangka)	No processed No processed No processed	2000/bundle 2000/pieces 1000/Kg
	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana	No processed No processed No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg
	Corn Long bean coconut Young Jackfruit (Gori/nangka)	No processed No processed No processed No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg
	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut)	No processed No processed No processed No processed No processed Emping garut	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg
Cidencia	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk)	No processed No processed No processed No processed No processed Emping garut No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 7000/Kg
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana	No processed No processed No processed No processed No processed Emping garut No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 7000/Kg 50000/ <i>tandan</i>
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili	No processed No processed No processed No processed No processed Emping garut No processed No processed No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 7000/Kg 50000/ <i>tandan</i> 10000/Kg
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut	No processed No processed No processed No processed Emping garut No processed No processed No processed No processed No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili	No processed No processed No processed No processed Emping garut No processed No processed No processed No processed No processed No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut Arrowrrot (Garut)	No processed No processed No processed No processed Emping garut No processed No processed No processed No processed No processed No processed Emping garut	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg 25000/Kg
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut	No processed No processed No processed No processed Emping garut No processed Emping garut Dipipil	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut Arrowrrot (Garut)	No processed No processed No processed No processed Emping garut No processed No processed No processed No processed No processed No processed Emping garut	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg 25000/Kg
Sidorejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut Arrowrrot (Garut) Corn	No processed No processed No processed No processed Emping garut No processed Emping garut Dipipil	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/ <i>tandan</i> 10000/Kg 2000/pieces 1000/Kg 25000/Kg 8000/Kg
	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut Arrowrrot (Garut) Corn Cassava	No processed No processed No processed No processed Emping garut No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg 25000/Kg 8000/Kg 4000/Kg 3000/Kg
Sidorejo Bumirejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut Arrowrrot (Garut) Corn Cassava Sweet Potato Corn	No processed No processed No processed No processed Emping garut No processed Dipipil No processed No processed Dipipil	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg 25000/Kg 8000/Kg 4000/Kg 3000/Kg 3000/Kg
Sidorejo Bumirejo	Corn Long bean coconut Young Jackfruit (Gori/nangka) Banana Arrowroot (Garut) Surly (Benguk) Banana Chili Coconut Arrowrrot (Garut) Corn Cassava Sweet Potato	No processed No processed No processed No processed Emping garut No processed No processed	2000/bundle 2000/pieces 1000/Kg 3000/Kg 2000/Kg 22000/Kg 7000/Kg 50000/tandan 10000/Kg 2000/pieces 1000/Kg 25000/Kg 8000/Kg 4000/Kg 3000/Kg

Table 4: Several Potentials Local Food Crops That Have A Contribution To Home Industry

6. Conclusion

This research found 36 kinds of local food crops that can be identified from three different geographical areas and also be divided into three land use: garden, dry field, and rice field. Specifically, local food crops are planted more by the respondents in their garden rather than in their dry field or rice field. Based on the seasonal crops there are also a pattern that in upland area, the nature gives important influence when the appropriate time should the local food crops are harvested. Meanwhile, in transitional region, the dominance of the nature is balanced by the human decision. It can be seen above (table 3) that the influence of drought and rainy seasons are considered by the respondent, in addition of their decision. Differently, in lowland area, the time when local food crops should be harvested are dominated by the respondents decision. In lowland area, most of the local food crops were harvested in drought season. It means that local food crops also are (1) to be sold, or (2) to be consumed by themselves. Meanwhile, it can also be identified that the methods of utilise these local food crops also varied such as boiled, fried, steamed, cooked into intermediate products, or cooked into final commodities that were ready to be consumed. Finally, empirically data showed that if the respondents sold processed local food crops they

will receive higher value rather than in raw products. Data showed that it worth more than twenty times compare to raw products. In order to reduce poverty this practice need support from various stakeholders.

Acknowledgement

The authors would like to thanks to the Head and the Officers of Kulon Progo Planning Board for the research cooperation, the Head and Officers of Samigaluh, Pengasih, and Lendah District and also the head and officers from the 14 villages: Kebonharjo, Gerbosari, Sidoharjo, Pagerharjo, Tawangsari, Sendangsari, Sidomulyo, Karangsari, Ngentakrejo, Sidorejo, Bumirejo, and Jatirejo for the helping information, the surveyors who collected the primary data, the respondents of this research, and LPPM UGM that had been given to the researchers a research fund under a contract No.: LPPM-UGM/876/LIT/2013.

References

Darmawan, D.P. (2011). Ketahanan Pangan Rumahtangga dalam Konteks Pertanian Berkelanjutan. Denpasar: Udayana University Press.

Gardjito, M., Djuwardi, A., and Harmayani, E.(2013). *Pangan Nusantara: Karakteristik dan Prospek untuk Percepatan Diversifikasi Pangan*. Jakarta: Kencana.

Isma'il, N.M.(2012). One Day No Rice: Gerakan Lokal untuk Indonesia. Jakarta: PT Gramedia Pustaka Utama.

Prabowo, D. (1995). Diversifikasi Pedesaan. Jakarta: Center for Policy and Implementation Studies.

- Rijanta, R., Widiyanto, D., Toekidjo, T., Sulistyani, S. (2013). Factors Constraining Local Food Crops Production in Indonesia: Experiences from Kulon Progo Regency, Yogyakarta Special Province. *Romanian Review of Regional Studies*, Vol IX, Number 1, p. 99-108.
- Sayogyo. (1993). Pemikiran tentang Kemiskinan di Indonesia dari Masa Penjajahan sampai Masa Pembangunan. *Prisma*. No. 3. Tahun XII, p. 3-9.

Suryana, A., and Pasandaran, E. (1993). Pembangunan Pertanian Berwawasan Lingkungan: Penanggulangan Petani Miskin dan Kemiskinan. *Prisma*. No. 3, Tahun XII, p. 57-67.

UU No. 18 tahun 2012 tentang Pangan.