SMERU Research Report

Life in a Time of Food Price Volatility:
Evidence from Three Villages in Indonesia
Findings of Years 1 and 2

Rachma Indah Nurbani

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Bambang Sulaksono

smeru RESEARCH INSTITUTE

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Cover photo: by a respondent of this study (participatory photography)

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ABSTRACT

Life in a Time of Food Price Volatility: Evidence from Three Villages in Indonesia. Findings of Years 1 and 2

Rachma Indah Nurbani, Hariyanti Sadaly, and Bambang Sulaksono

Aiming to examine the impacts of price volatility of food and other basic needs on poor and vulnerable people, this study takes into account the socioeconomic costs the people have to pay in managing the changes in their everyday life. Global food prices have shown a more volatile and higher trend in recent years. In Indonesia, unpredictable and more frequent changes in food and other basic needs prices over the past years have led to a widespread view that price volatility has been a common occurrence. While high and volatile food prices show a steady trend, their assessment, which is made using macroeconomic indicators, often makes their micro-level impacts on people's day-to-day lives escape the policymakers' attention. Through longitudinal qualitative data collection activities, we carried out research about the impacts on dimensions of the well-being of different groups of poor and vulnerable people in three case-study locations in Indonesia through pathways triggered by the changing prices of food, fuel, and other basic needs.

From the research, we have learned that price volatility often concurs with income uncertainty and one of the ways people choose to cope with these problems is by adjusting food expenses, which take up the largest portion of households' total expenditure. In addition, they buy daily needs on credit, work harder, borrow money from others (mostly relatives), and reduce social activities. At the household level, most of the adjustments rely mainly on women. Findings of this study may help us to understand that the various adjustments made and the support received have made the people appear resilience, but this may bring about invisible threats to their well-being. This report presents the findings of the first and second years of this research aimed at establishing context, providing background, and recognizing the significance of the issues that will be followed over the research time.

Keywords: price volatility, food, basic needs, well-being, coping

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

LIST OF PHOTOS

LIST OF APPENDICES

LIST OF TERMS AND ABBREVIATIONS

AMIS		Agricultural Market Information System
angkot		shared minibus taxis
arisan		a regular social gathering in which members operate a rotating savings scheme
asin		salted fish/anchovies
bank keliling		moneylenders
Bappenas	Badan Perencanaan Pembangunan Nasional	National Development Planning Agency
BBM	*bahan bakar minyak*	fuel
BKP	Badan Ketahanan Pangan	Food Security Agency
BLSM	Bantuan Langsung Sementara Masyarakat	Temporary Direct Cash Transfer
BLT	Bantuan Langsung Tunai	Direct Cash Transfer
BOS	Bantuan Operational Sekolah	School Operational Assistance
BPBD	*badan penangulangan bencana daerah*	regional disaster management agency
BPMKP	Badan Pembedayaan Masyarakat dan Ketahanan Pangan	Regional Community Empowerment and Food Security Agency
BP4KKP	Badan Pelaksana Penyuluhan Pertanian, Perikanan, Kehutanan, dan Ketahanan Pangan	Agricultural, Fisheries, Forestry, and Food Security Extension Workers' Office
BSM	Bantuan Siswa Miskin	Cash Transfers for Poor Students
Bulog	Badan Urusan Logistik	National Logistics Agency
bupati		district head
CBMS		Community-Based Monitoring System
DKP	Dewan Ketahanan Pangan	Food Security Council
FAO		Food and Agriculture Organization
FGD		focus group discussion
FPV		food price volatility
gapoktan	*gabungan kelompok tani*	farmers' groups association
GDP		gross domestic product
GoI		Government of Indonesia

HANCI		Hunger and Nutrition Commitment Index
IDS		Institute of Development Studies
Jamkesda	Jaminan Kesehatan Daerah	Regional Health Insurance Program
Jamkesmas	Jaminan Kesehatan Masyarakat	Community Health Insurance
Jampersal	Jaminan Persalinan	Community Insurance for Antenatal, Childbrith, and Postnatal Care
kabupaten		district
kecamatan		subdistrict
kerawanan pangan		food insecurity
ketahanan pangan		food security
kota		city/municipality
kulah		traditional bathroom; a small basin for containing clean water used for bathing and washing
KUR	Kredit Usaha Rakyat	People's Business Credit program
KRPL	Kawasan Rumah Pangan Lestari	Sustainable Food Reverse Garden program
LPG		liquefied petroleum gas
LTFPV		Life in a Time of Food Price Volatility
madrasah aliah		Islamic senior high school
MDGs		Millennium Development Goals
MSG		monosodium glutamate
nasi uduk		steamed rice cooked with coconut milk and served with simple side dishes such as fried egg, tempeh, tofu, or fried vermicelli
nganjuk		borrow foodstuffs from traders, other farmers, or intermediary traders
ngeprik		gleaning for excess grains left in paddy fields following rice harvests
NGO		nongovernmental organization
ojek		motorcycle taxi
P-LDPM	Penguatan Lembaga Distribusi Pangan Masyarakat	Strengthening of Community Food Distribution Organizations

P2KP	Program Percepatan Penganekaragaman Konsumsi Pangan	the Acceleration of Food Consumption Diversification program
paman sayur		vegetable peddler in Banjar
paguyuban		community association
pengajian		Koran recital gathering
pengaron		landless rubber tapper
PKH	Program Keluarga Harapan	Conditional Cash Transfer for very poor households with pregnant/breastfeeding women and school-aged children
PMT	Pemberian Makanan Tambahan	Supplementary Feeding
PNPM	Program Nasional Pemberdayaan Masyarakat	National Program for Community Empowerment
posyandu	*pos pelayanan terpadu*	integrated health service posts
puskesmas	*pusat kesehatan masyarakat*	community health center, at the subdistrict level
PUAP	Program Pengembangan Usaha Agrobisnis Pertanian	the Rural Agribusiness Enterprises Development program (a rural financing scheme launch by the Ministry of Agriculture)
PTPN I	PT Perkebunan Nasional I	one of the state-owned plantation companies conducting the plantation and processing of oil palm and rubber
Ramadan		the 9th month of the Islamic calender where Moslems fast for the whole month
Raskin	Beras untuk Keluarga Miskin	Rice for Poor Households
Rp	rupiah	Indonesian currency
RPJMN		National Medium-Term Development Plan
sambal		a chili condiment
sembako	*sembilan bahan pokok*	nine basic needs
sedekah		A kind of charity usually in form of money--out of *zakat*
SKPD-KB		regional family planning work unit
SKPG	Sistem Kewaspadaan Pangan dan Gizi	Food and Nutrition Surveillance System
SKTM	*surat keterangan tidak mampu*	letter evidencing poverty for the poor

SL-PTT	*sekolah lapang-pengelolaan tanaman terpadu*	integrated crop management field school
tangkil/melinjo		Gnetum gnemon fruit
tawakkal		surrender oneself to God
tempeh		fermented soy bean
tengkulak		intermediary trader
UK		United Kingdom
warung		a type of small family-owned business that sells foodstuffs such as sugar, cooking oil, and food ingredients (tomato, shrimp paste, chili peppers, etc.)
WFP		World Food Programme
zakat		tithe
zakat fitrah		A form of *zakat* having to be fulfilled after fasting for a whole Ramadan month before the Eid al-Fitr prayer is said
zakat panen		harvest tithe

EXECUTIVE SUMMARY

The Life in a Time of Food Price Volatility (LTFPV) study, conducted over the period from 2012 to 2015, was centered on 10 urban or periurban and 13 rural locations across 10 low- to middle-income countries in Guatemala, Bolivia, Burkina Faso, Zambia, Kenya, Ethiopia, Pakistan, Bangladesh, Vietnam, and Indonesia. It involves a collective of researchers tracking, documenting, and analyzing how food price volatility (FPV) affects the everyday lives of people on a low or unstable income. Moreover, it focuses on paid work, the work of caring for or looking after families and others, the way relationships are being affected, and changes to the usage of resources with which people have to cope. The 10 countries under study have been categorized according to their per-capita income levels and the prevalence of undernourishment.

The project funding comes from UK Aid and Irish Aid, while the technical assistance was provided by the Institute of Development Studies (IDS) and Oxfam GB. This report presents the results of the first- and second-round research in Indonesia from 2012 to 2013, carried out by The SMERU Research Institute.

The research activity in Indonesia aims to contribute to the improvement of the food security prospects of the poor and vulnerable people in the country by providing knowledge and understanding of how their lives are affected by the volatile prices of food commodities, fuel, and other basic necessities.

Through a series of longitudinal qualitative research in three community case studies, this study tries to observe how complex events and processes at the global and national levels unfold in people's day-to-day lives, which in turn affect their well-being and opportunities for development. The first round of the research was conducted from June to September 2012, while the second, with the same respondents as those in the first round, was carried out in September 2013.

The core concepts used in the study are well-being, coping, adaptation, unpaid care work, and social protection. These concepts are selected on the grounds that they are closely related to food price volatility and it is assumed that they are able to depict the real condition in the community. Furthermore, given the fact that food price volatility touches many aspects and dimensions, this study tries to enrich the findings by focusing on special topics of current interest for each year. For the 2012 study, the special topic is 'future farmers', while for the one in 2013, we focused on 'local accountability for hunger and food security'.

The two rounds of qualitative research through community case studies were conducted in three villages in Indonesia, located in West Java Province (Kabupaten Bekasi[i] and Kabupaten Cianjur) and South Kalimatan Province (Kabupaten Banjar). The villages were selected based on the fact that the research team had worked there before, so the team could build on existing partnerships and have good relationships with and knowledge of the local people and issues. The villages in Kabupaten Banjar and Kabupaten Bekasi had been a part of a study conducted by IDS and SMERU on crisis impact monitoring in 2009, while the village in Kabupaten Cianjur had been the location of several SMERU studies on community-based monitoring system (CBMS) in 2005 and 2006, monitoring of the implementation of the Direct Cash Transfer (BLT) program in 2008, and rapid appraisal of data collection for social protection programs in 2011. The villages in Kabupaten Cianjur and Kabupaten Banjar represent the rural research locations, while the one in Kabupaten Bekasi represents the urban research location for the community case study.

[i]District of Bekasi.

Results of the participatory qualitative research conducted in the three research locations indicate that the impact of food price volatility and changes in government fuel subsidies at the national level has been felt at the local level, mostly in the form of price hikes in daily necessities. It has impacted people's well-being in different ways, depending on their livelihoods. In addition, how well people lived during the past years in the context of food price volatility was influenced by other factors such as local labor market conditions, wages, as well as natural and environmental conditions.

This first- and second-year research report highlights the following points.

Food Price Volatility and People's Responses

Changes in the general price level over the past year (2011–2013)

In 2012, the central government's announcement of its plan to cut fuel subsidies was noted by the people at the research locations as one of the major factors that caused prices to rise, mostly affecting food and other basic necessities. Even though the cuts did not eventuate at that time, the announcement caused the prices of daily necessities to increase, which further reduced people's purchasing power. In 2013, just before the fasting month (Ramadan[ii]), the government had finally cut the fuel subsidy, making the people suffer the combined impact of increased prices of goods and the fuel itself, which lasted for several months.

Prices of Basic Food Items at the Local Level

a) The highest increase in the price of rice was felt by the people in Bekasi. In Cianjur, people could still rely on rice from the paddy fields they worked in; rice purchased directly from the seller—it cost less than the price of rice from traditional markets; and rice from the Raskin program. The price of rice in Banjar was not as volatile as that in Bekasi and Cianjur because the people in Banjar prefer consuming the local rice.

b) The prices of the nine basic needs (*sembako*) started to increase in the first quarter of 2012, in anticipation of the fuel price hikes following the government's announcement of its plan to reduce fuel subsidies in April 2012. After the subsidy cuts were cancelled, instead of going back to normal, prices of the basic needs kept rising.

c) Prices remained high and further increased during the month of Ramadan (July 2012). Prices continuously increased during 2013, reaching their peak between July and August.

d) During the Ramadan fasting month until the Eid al-Fitr celebration, people faced a combined impact of the fuel subsidy cut that had taken place just before the fasting month and the rising prices that usually happen during the fasting month and the Eid al-Fitr celebration.

e) Among the basic food items, the price of food items/ingredients with high consumption rates, such as tempeh (fermented soy bean), tofu (bean curd), vegetables, chili peppers, shallots, and anchovies, experienced the greatest change.

f) To deal with the food price hikes, food stalls and *warung*[iii] sold their products in smaller quantities or in packages, as well as reduced the sizes of existing packages.

[ii]The 9th month of the Islamic calender where Moslems fast for the whole month.

[iii]A type of small family-owned business that sells foodstuffs such as sugar, cooking oil, and food ingredients (tomato, shrimp paste, chili peppers, etc.).

g) Packets of pre-made seasoning (instant seasoning) and monosodium glutamate (MSG) become a more favorable option in order to save money on spices.

h) The impact of increases in chicken, beef, and fresh fish prices was not as significant as the impact of increases in the prices of *sembako* because they were rarely consumed by the respondents who considered them luxury foods.

Other Costs of Living

a) The government's announcement of its plan to cut fuel subsidies in 2012 immediately resulted in increases in the price of people's daily cooking fuel (LPG/liquefied petroleum gas) and the fares for local public transportation (*angkot*, or shared minibus taxis; and *ojek*, or motorcycle taxis). The price of three-kilogram LPG cylinders used for cooking increased and they were sometimes difficult to obtain shortly after the announcement.

b) The increase in the local public transportation fares caused parents to increase their children's pocket money or reallocate the existing amount of pocket money more for transportation cost and less for snacking. This condition is particularly true in Bekasi and Banjar, where higher fares applied to everyone. In Cianjur, transportation fares for students remained the same as mandated by a local government regulation on transportation fares, despite the higher price of gasoline. The increase in the transportation fares had further put pressure on people who travel to make a living.

c) During 2012, people in the rural research locations, i.e., those in Bekasi and Banjar, reported increases in the costs of agricultural production, such as fertilizer, rice milling, and farm workers. The increased costs of agricultural production forced farmers in Cianjur to use lower quality fertilizer or mix the good quality with the lower quality fertilizer. In Banjar, the price of rubber tree fertilizer rose significantly. Another concern was the difficulty in obtaining fertilizer, as revealed during the men's forum group discussion (FGD) in Banjar. Concerns on the rising price and scarcity of fertilizer still occurred in 2013. Most of the respondents agreed that prices of fertilizers and pesticides in 2013 were more expensive compared to the previous year and they were also complaining about the quality of the fertilizer. With the higher production costs, agriculture became less feasible for some farmers, forcing them to sell their land and change occupations. In Cianjur, some farmers sold their land, used the money to buy an *angkot*, and changed their job to become an *angkot* driver.

d) Increasing prices of basic needs and income uncertainty had put pressure on people's ability to afford healthcare service, as people had to allocate some budget not only for paying the service and medicine, but also for the transportation to the healthcare center. When people did not have enough money, they would buy over-the-counter drugs at the local kiosk. Even though they felt that the drugs could not cure their illness, at least they could alleviate the pain for a moment.

Local Livelihoods

Even though price volatility has become a normal thing for the people at the three research locations, it has impacted people's well-being in different ways—depending on their livelihoods. And, how well people lived during the past years in the context of food price volatility was also influenced by other factors, such as local labor market conditions, wages, as well as natural and environmental conditions.

Changing Occupation

a) Although each research location has its own distinct characteristics, general trends appeared regarding work and business opportunities, including most of the occupations at the local level that had become less sustainable.

b) At the three research locations, several new industries had started up beforehand and were looking for workers. These included new home and electronic appliance factories in Bekasi, a garment factory in Cianjur, and a coal mining company in Banjar. However, industrial workers also experienced their own challenges due to shorter employment contracts and less secure employment arrangements. Factories had certain selection requirements for job candidates, notably age limits. They preferred to hire young people who were still single and within a specific age range.

c) Industrial sector employers also preferred to hire female rather than male workers. This caused male workers to enter the informal sector, doing casual jobs and providing services to formal workers by becoming public transportation drivers, running *warung*, or becoming *warung* attendants.

d) The soaring prices of food and other necessities had also forced some small traders to change or even stop their business. The soaring prices had made them spend more money for capital, while customers bought their goods on credit; these small traders eventually ran out of money.

Wages and Earnings

a) Wage increases did not balance out the increased living costs. In some cases, wage increases might also have led to increases in the price of basic goods. In Bekasi, house rents increased, negating increased incomes.

b) Increasing wages led to changes in employment conditions. Workers in Bekasi began to receive shorter and more temporary employment contracts, which resulted in less protection and assurance. Meanwhile, the wage increase in Cianjur forced some tenant farmers and land owners to work alone without hiring help in order to save money.

c) People in Banjar faced the combined impact of decreasing income and increasing living costs.

Natural and Environmental Changes

Local livelihoods are intertwined with natural and environmental changes. Environmental degradation increases the likelihood of environmental change, which presents the biggest issue for people living in the rural research locations involved in this study.

a) In Cianjur, pest attacks had been a regular occurrence, causing crop failures and harvest yields to drop. This in turn led to reduced incomes for farmers.

b) Meanwhile, the rubber business at the Banjar research location was also in a critical condition. Besides the fact that the rubber price was falling, production was also very low (in terms of both quantity and quality) because of low-yielding aged rubber trees and prolonged dry seasons in 2012 and 2013.

How Households Responded to Increasing Prices

People felt that the prices of basic goods had risen, resulting in a deficit in their family finance. In response to increasing prices, people were economizing on food expenses. In addition, they worked harder, borrowed money from others (mostly relatives), and reduced social activities. The way

people responded to their situations might have left them better off; however, it might have also threatened their well-being.

How Were People Eating

Having similar menus every day

Even outside of times of crises, insufficient money and resources made the poor people at the research locations unable to eat varied diets. The food they ate basically remained the same from day to day and depended on the money they had at the time. Anchovies, other salted fish, tofu, tempeh, simple vegetable soup, stir-fried vegetables, tamarind soup, and raw vegetables with *sambal* were among the regular food options in almost all informants' households.

Cutting back on the quality and/or quantity of food

a) Increasing food prices forced poor households to cut back on the quality or quantity of the food they consumed. In most cases, they had to substitute their preferred food with cheaper and lower quality options.

b) Substantial changes in poor households' food consumption took place at the Banjar research location in 2012 as a result of the combined impact of the decreasing rubber price and increasing food prices. The study found that some rubber farmers' households could not afford to buy fish and tempeh—food items that are usually present in their daily diet when rubber business is going well.

c) Although some poor households ate the same number of times per day albeit with reduced amounts of and/or cheaper food, increasing food prices led the poorest households not only to the consumption of lower quality food but also to the reduction of the frequency of their meals.

Eating more prepared and instant food

a) Increasing food prices made poor households consume more prepared and instant food. These meal options were increasingly preferred over self-prepared food due to their affordability and ease of preparation. For poor households, by not cooking, they did not need to buy additional seasoning, such as garlic, shallots, and salt; cooking oil; or even firewood. Doing this also meant that they could use the time otherwise spent on cooking for working or doing other activities to make money.

b) The most popular instant food at the three research locations and other places throughout Indonesia was instant noodles. It only takes less than five minutes and a small amount of water and cooking fuel to prepare the food. People usually bought several packets of instant noodles which they divided up between all family members and combined with rice as a side dish.

Gathering, growing, and breeding

a) Gathering food from the surrounding environment, growing vegetables, and breeding small farm animals were the other ways with which poor people obtained free food following the significant price increases. Gathering food is a common practice for poor people living in rural areas and in some periurban areas where farm fields can still be found. People collected wild edible plants growing around the fields. Sometimes, field owners allowed the people to collect certain unused parts of crop plants. Different kinds of food could be gathered at different places.

b) The study also found people breeding livestock near their houses, including chickens, ducks, goats, and sheep. The livestock are considered to be small assets that can be sold off when the people need money.

Prioritizing children's food intake

People were trying to maintain their food intake and provide nutrition to their children—no matter how hard their situation was. The parent had no problem eating only twice a day as long as their children could eat three times a day.

Switching to cheaper cooking fuels

Beginning in 2007, the Government of Indonesia implemented a massive energy conversion program to change the people's primary cooking fuel from kerosene to LPG. The program included the distribution of free gas stove sets and LPG cylinders to over 50 million households, focusing on those with low incomes. However, for most of the poor households at the research locations, LPG was still considered as something they could not afford to buy most of the time.

a) At the Banjar and Cianjur research locations where wood is widely available, the study finds that even though poor people had gas stoves, they more often cooked using firewood. People could buy a bundle of firewood for less than the price of gas. Some of them even got firewood for free.

b) People in Banjar and Cianjur scavenged for wood in nearby fields, while some other people in Bekasi collected spare wood from construction sites. For fire-lighting material, poor people in Banjar used rubber sap instead of kerosene, while people in Cianjur used dry coconut husks and fronds. Additionally, another way people saved on cooking costs was by using less cooking oil.

Price Volatility and Planning for the Future

Food price volatility impacted people's well-being in several ways. It forced them to spend more than they anticipated and caused them to postpone their future plans. In Banjar, the volatile price had caused a female entrepreneur to run out of capital and, as a result, she postponed her plan to buy a refrigerator and to become a rubber dealer. In Bekasi, the volatile price had made a household be constantly in debt and lose their chance to save money. Moreover, they also had to postpone their plan to buy a washing machine, which was actually much needed to reduce the time and energy of the female household members to wash the clothes. Some concerns about children's education were revealed during the second-round research in 2013 in Banjar. One of them was that a child from the household case study had just graduated from an Islamic high school but decided not to continue her education since the family did not have enough money.

Unpaid Care Work and Household Well-Being

In response to the price hikes and reduced income, people had made more effort to maintain household well-being through the unpaid care work activities they carried out. Unpaid care work activities that may include direct caring activities such as minding the children and looking after the elderly or sick people; indirect caring activities such as cooking, washing, and fetching water; and other domestic chores supporting direct caring activities or helping to make household activities run well must always be carried out, whatever hardship is faced by the households.

In addition to women being the main care provider, other patterns were revealed during the 2012–2013 research rounds associated with unpaid care work practices, including the transfer of unpaid

care work responsibilities from women to other household members, including men. It was usually for the types of chores requiring physical effort such as fetching water. In some households, men did their own laundry, as each member of the household had to wash their own clothes. Men did a greater amount of unpaid care work particularly in households where women (the wives) worked, especially for those working abroad as migrant workers.

The study also found that technology helped reduce the drudgery of unpaid care work. The presence of businesses providing low-priced home appliances—including the second-hand ones—and the increasing use of credit installment schemes had made energy- and time-saving technological devices more affordable to poor people in the research locations. Some of the research respondents had already had a rice cooker in their house which could help them cook rice in a shorter time frame. Some even already had a washing machine and refrigerator.

Limited facilities and infrastructure had encouraged the people at the research locations to work together to find solutions that could ease the burden of household chores. The study also found that community care could also be a form of informal support.

Social Relation and Activities

There are many forms of social activities that are performed by the people in the research locations. For them—as also for many other people in Indonesia with different cultural backgrounds—social activities serve as a place for keeping in touch with others. *Arisan*[iv] and *pengajian* (Koran recital gathering) are among the social activities routinely conducted by people in the three research locations. There are usually *arisan* and *pengajian* for specific groups of people based on gender and ages: *arisan* and *pengajian* for women, men, and youths. In addition, there are also forms of irregular social activities, such as wedding ceremonies. The economic hardship that most people in the Banjar research location endured in 2012 and 2013 had encouraged them to work harder and, in some cases, reduce the social activities that they attended. Such reduction was considered one of the efforts to cut back on household expenditure, especially if these activities required them to pay a sum of money, which was burdensome to them.

Sources of support

a) Formal social protection

Almost all government assistance programs were available in the research villages, but not all research respondents could access them. Several problems faced by the people in accessing the assistance reduced the benefits of the programs due to their quality, quantity, timing, and sustainability. In regard to the formal social protection provided by the government, the study found that most of the research respondents were able to buy Raskin rice, but they complained about its quality.

In terms of health, even though people had already received a Jamkesmas (Community Health Insurance) card, not many of them used it because of the travel cost and energy they had to expend to visit certain *puskesmas* (community health centers). When they got sick, they more often bought medicine at the local *warung* or went to the nearby health center, doctor, or midwife for more serious illnesses.

Another social protection scheme received by the people included the BLT program and the Temporary Direct Cash Transfer (BLSM) program—a temporary unconditional cash transfer

[iv] An *arisan* is a regular social gathering in which members operate a rotating savings scheme.

program targeted toward poor people to reduce the impact of the fuel subsidy cut. However, the study found that some household respondents received the cash transfer in 2012 but not in 2013. People did not really know what the reason was. They thought that it might have been due to an error in the database or that they were no longer considered poor by the government.

b) Informal support

Despite the existing formal social protection programs from the government, for people in the three research locations, primary support came from informal sources such as family members, relatives, intermediary traders, and neighbors—including *warung* and local leaders. Among all the informal sources, *warung* is the most accessible one for the people.

For farmers, in particular, *tengkulak* (intermediary traders) are an important source of support when they need advance money.

There was also religious-based social protection received by the people during the fasting month of Ramadan and Eid al-Fitr in the form of money or rice. In Bekasi and Banjar, the amount of rice received by a poor household from *zakat* (tithe) payers could even meet the needs of rice for more than a month—in some households, it was even sufficient for almost two months. A rain of donations were not only in the form of *zakat* but also in the form of *sembako* and *sedekah*[v].

c) Changes in communal ties

Despite the various kinds of community support, some people felt changes in communal ties. This was particularly noticeable in the Banjar research location, where the economic situation was the worst among the three research locations. Economic hardships in recent years have someway affected social relations in that people have become less able to support each other.

Future Farmers

How agriculture features in young people's livelihood prospects

a) Most of the respondents come from low-income households. In rural areas, young people's parents generally work as farm laborers, sharecroppers, or casual workers not having their own land (only a few of them are landowners), while in periurban areas, the parents are low-paid casual workers, small traders, or contract workers in industrial companies. There are also respondents who had moved away from rural areas where their parents work as farm laborers.

b) The respondents are young people who are in their transition phase from school to work; who have just graduated from school or discontinued their study; who have already worked—although some of them have only started working; and who are still at school and are dependent on their parents/family. They feel uncertain about the challenges in the future.

c) There are only some of the respondents who see agriculture in terms of its agribusiness concept. The rest see agriculture in a fairly limited sense, that is, limited to working on a farm/plantation and growing crops.

d) One potential reason for the respondents' lack of willingness to work in the agricultural sector may be due to the way they perceive agriculture. For most of the young people we spoke to,

[v]Charity given usually in the form of money, but it is different from *zakat. Zakat* is an obligation after a certain condition is met, while *sedekah* is voluntary, depending on the financial ability of the giver.

working in agriculture means physical labor—hard, hot, and dirty—and it only suits less-educated people.

e) Young people are more interested in getting a job in the "modern sectors" such as mining in Banjar, manufacturing in Bekasi, and garment industry in Cianjur, especially the ones that are under a contract of permanent employment. Getting that kind of job will not only give them a bigger salary but also a higher social status.

What occupation do young people take up these days?

For most of the respondents, future employment is more oriented toward sectors outside the agricultural sector and should be located in nonrural areas. Their desire is to work in a modern office in a big city. However, due to lack of education and experience, they have to end up doing an informal kind of job or a formal but temporary-contract job.

How do parents view their children's livelihood prospects?

Most of the respondents' parents both in rural and periurban areas do not want their children to be a farmer and this seems to be a strong factor that influences the responses we received from the young people.

How can farming be made more attractive to young people?

Despite the fact that the majority of the respondents do not have any interest in agriculture, there are still a few respondents who have the willingness to work in this sector. They are young people who see agriculture in terms of its agribusiness concept. These young people also see the importance of agriculture from the long-term perspective.

Providing a better education about agriculture may help broaden the young people's horizons so that they perceive agriculture more favorably and this may allow them to make more informed decisions with regard to agriculture and their livelihood prospect. However, what came out of the various in-depth interviews and FGDs that we held was that agriculture features very little, if at all, in the curriculum of the agricultural education that the young people receive. In fact, there was only one person who mentioned that he took agricultural lesson in high school and that he wanted to go back to his hometown and work in the agricultural sector.

Local Accountability for Food Security/Hunger

National Policy on Food Security

In the 2012 Hunger and Nutrition Commitment Index (HANCI), Indonesia ranked 7th out of 45 countries assessed for their commitment toward dealing with hunger and reducing rates of malnutrition (te Lintelo et al., 2013). The government's commitment has been apparent through the various rules and policies it has put in place. They have made the right to food a fundamental human right, the upholding of which is the main responsibility of the state.

At the strategic policy level, the government has included food security as one of its national development priorities in the 2010–2014 National Medium-Term Development Plan (RPJMN) in order to enhance food security and self-sufficiency, fulfill the community's nutritional requirements, and revitalize the agricultural sector.

To support the implementation of the national strategic vision for food security policies, the government has established the Food Security Council (DKP) and the Food Security Agency (BKP). The DKP is tasked with assisting the government in formulating national food security policies, conducting evaluations, and developing coordination for national and subnational food security policy programs. As for the BKP, it serves the day-to-day operations of the DKP and is responsible for carrying out assessment, development, and coordination activities in relation to food security.

To monitor the achievement of the food and nutrition security problem management targets, the central government has developed the Food and Nutrition Surveillance System (SKPG), which is administered by working groups at the national, provincial, and *kabupaten/kota* levels of government.

Accountability for Food Security: Critical Review of Local-Level Policy Implementation

Poor program information dissemination and unstandardized knowledge among local officials

a) The dissemination of information on food security and agriculture revitalization programs, as well as the SKPG, had not been conducted properly to all levels of government and the community. When we carried out the village-level assessments, it was clearly evident that village authorities had not heard of SPKG and did not understand what food security referred to.

b) Local officials seemed to have unstandardized and incomprehensive understandings of the definition of and criteria for food security/insecurity. Even though they work for agencies involved in the SKPG team, their understanding was mostly based on their personal opinion and it varied among officials and agencies.

c) Some local officials viewed food security more in terms of availability and accessibility only, as in the availability of food and the community's ability to buy it. However, some others viewed food security in terms of utilization, such as nutritional value, quality of food consumed, and food variety. Differences in perceptions and knowledge were also evident when respondents were asked about the criteria for the food insecurity situation in their regions. They generally associated the criteria with accessibility (ability to buy food); food availability (predominantly rice) due to food production and the occurrence of disaster; and utilization due to eating patterns and quality of food consumed (food variety and nutritional value).

Unclear monitoring and reporting mechanism

a) In regard to food security monitoring and reporting, most local officials we spoke to demonstrated that they did not really understand the purpose of or mechanisms for reporting and managing cases of food insecurity. Local officials did not give a uniform response when they were asked how authorities find out about incidences of food insecurity and malnutrition and who is responsible for handling food security incidence. However, most of them agreed that lines of reporting as well as responsibilities should ideally start from the lowest level of government, as it deals directly with the people.

b) There are no clear procedures that regulate accountability and penalties for instances where local governments fail to respond to food insecurity incidence otherwise to ensure food security. The one that has taken place is awards for successes in safeguarding food security.

c) A clearer mechanism was found in the fields of health, nutrition, and disaster management where the local governments already had a more systematic reporting and management mechanism. In reporting health and nutrition cases, the health agency involved midwives and integrated health service post (*posyandu*) cadres at the village level.

Poor coordination and lack of institutional capacity

a) Aside from the unclear mechanism, another problem in the reporting and responding process is the poor coordination and excessively rigid bureaucracy that limit local officials in responding to community complaints.

b) Poor coordination at the local level had resulted in the lack of information and knowledge sharing between local officials from different agencies, even though they are members of the same regional food security team. One of the consequences of the poor coordination is policy conflicts that sometimes occur between agencies.

c) The problem of poor coordination was caused by, among other factors, a high degree of sectoral egotism, and imbalanced capacities and position between institutions being tasked with coordinating food security programs and other institutions that are members of the regional food security teams. Institutional capacity was again a problem in light of available resources and designated responsibilities.

The People's Perceptions

What does food security/insecurity mean to you?

a) During the assessment, people at the community level were not familiar with the term 'food security' and were unclear about who was responsible for food security. However, despite facing economic difficulties, household respondents felt that they were still food secure because they could still fulfill their household dietary needs without difficulty; they could still eat with their regular frequency or slightly smaller quantities (regardless of the quality of the food); they could still feed their children; they "had rice"—were still able to buy rice or maintain a supply of rice; they had an income; and they still had people willing to help them out.

b) In terms of people's perceptions of their rights in obtaining food, it seems that they did not really know and had never even heard of the term "the right to food", or "*hak atas pangan*" in Indonesian. It is quite reasonable considering that the three study areas have never experienced severe food security issues such as famine.

Who is Responsible for Responding to Hunger Problems?

Regarding accountability for food security, some of the people thought that the government should have a greater role in helping the community overcome problems. They believed that the government was "too distant". Thus, community members more often accessed informal social security resources through their families, neighbors, community figures, *arisan*, and community associations (*paguyuban*). In some cases, they felt that no one can help, so they have to rely on their own.

I. INTRODUCTION

1.1 Background to the Life in a Time of Food Price Volatility Global Study

Global food prices have shown a more volatile and higher trend in recent years (Figure 1). While food prices fell sharply in 2009 with the global financial crisis, they went up again in early 2011, almost reaching the 2008 levels (The World Bank, 2012a). High and volatile food prices appear to be a sustainable trend, along with intensive pressures from the demand side due to an increasing demand for food commodity as a consequence of the increasing number of world population, increasing purchasing power of consumers from emerging countries, and increasing demand for the use of food commodity as biofuel. From the supply side, food production faces many challenges from the scarcity of natural resources and the increased frequency of weather shocks all over the world. Other challenges include the strong impact of world energy price and exchange rate movements (Baffes and Dennis, 2013). The poor and vulnerable—including the rural and urban poor who are typically net food buyers—have been the ones who feel the greatest impact when prices fluctuate and get higher substantially, including running the risk of poverty trap (The World Bank, 2011a). As of 2011, the global food price spike increased the number of people living in poverty by an estimated 44 million people (Ivanic et al. cited in Hossain, King, and Kelbert, 2013).

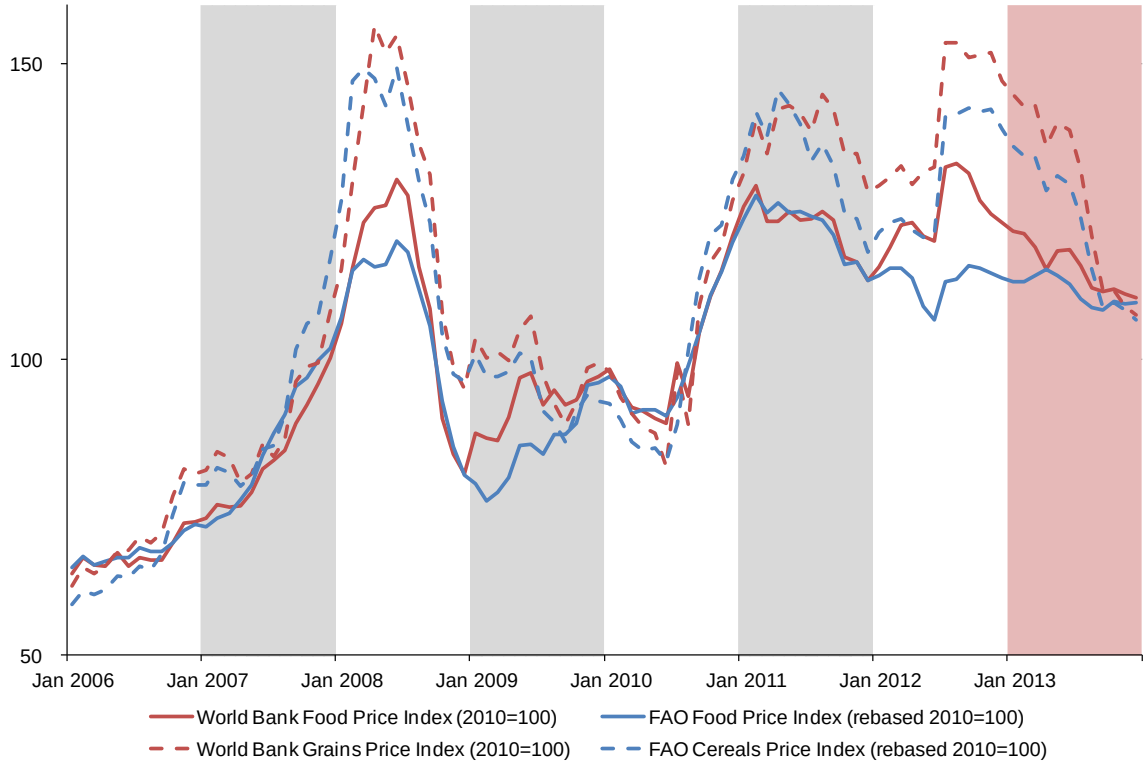


Figure 1. Movements in international food price indices

Source: Hossain, King, and Kelbert, 2013.

Major shifts in food prices are significant events in people's lives and so in 2012, with funding from UK Aid and Irish Aid, the Institute of Development Studies (IDS) and Oxfam initiate a multi-countries

research involving researchers from 10 low- to middle-income countries—Indonesia, Bangladesh, Bolivia, Burkina Faso, Ethiopia, Guatemala, Kenya, Pakistan, Vietnam, and Zambia, to conduct a four-year observation on the impact of food price volatility in their countries. The study aims to track the impacts of price volatility of food and other basic needs on everyday life. The rationale was that many of the social costs of managing change are invisible to policymakers: nutritional or poverty measures may indicate that poor people have coped well and appear 'resilient', but only because such measures miss or fail to take into account some key costs of apparent resilience, including more time and effort needed to feed and look after people; nonmonetary effects on family, social, or gender relations; mental health costs, such as stress; quality of life; and cultural issues, including the pressure to eat 'foreign' fare, or food considered inferior. These issues tend to be neglected in nutrition and poverty impact studies, but they tend to matter a great deal to people (Epsey, Harper, and Jones, 2010; Elson, 2010; Heltberg et al., 2012 in Hossain, King, and Kelbert, 2013).

Overall, conducted over several time periods between 2012 and 2015, this study was centered on 10 urban/periurban and 13 rural locations across the case study countries (see Figure 2). In Indonesia, The SMERU Research Institute conducted activities comprising a collective of researchers tracking, documenting, and analyzing how food price volatility (FPV) affects the everyday lives of people on a low or unstable income; moreover, it focuses on paid work, the work of care or looking after families and others, the way relationships are being affected, and changes to the usage of resources with which people have to cope.

Figure 2. Global research locations

Source: Hossain, King, and Kelbert (2013).

Ten countries were chosen based on the following criteria:

- they have significant problems of undernourishment;
- teams were already in site, as in the cases of Bangladesh, Indonesia, Kenya, and Zambia, where work with IDS on crisis monitoring research has been conducted since 2009; and
- Oxfam offices in these countries asked to be involved to improve their understanding of FPV impacts.

The ten countries under study have been categorized according to their per-capita income levels and the prevalence of undernourishment (see Table 1).

Table 1. Country Groupings

	Low-Income Countries	Lower-Middle-Income Countries
'Severe' Undernourishment	Burkina Faso, Ethiopia, and Kenya	Guatemala and Zambia
'Moderate' Undernourishment	Bangladesh	Bolivia, Indonesia, Pakistan, and Vietnam

Source: Hossain, King, and Kelbert (2013).

1.2 Indonesia Study Activity

Indonesia has shown considerable macroeconomic performance over the last decade and has succeeded in upgrading its status into the lower-middle income group. However, the status as a lower-middle income country does not necessarily guarantee the country's ability to overcome food security problems. Even though food security has been set as one of the national development priorities, there are around 25 million Indonesians who are still food insecure (Dewan Ketahanan Pangan[1], Departemen Pertanian[2], and World Food Programme, 2009). The Global Food Security Index Survey conducted by the Economist Intelligence Unit also shows that Indonesia's food security status is ranked at a moderate level of 64 out of 105 countries in the world; this means that the country still faces challenges of potential food spikes, poor diet quality, and limited expenditure on agriculture research and development (Economist Intelligence Unit[3], 2012).

The research activity in Indonesia aims to contribute to the improvement of the food security prospects of the poor and vulnerable people in the country by providing knowledge and understanding of how their lives are affected by the volatile prices of food commodities and other basic necessities.

Through a series of longitudinal qualitative research in three community case studies, this study tries to observe how complex events and processes at global and national levels unfold in people's day-to-day lives, which in turn affect their well-being and opportunities for development. The first round of the research was conducted in June–September 2012 and the second, with the same respondents as those in the first round, in September 2013.

This report was developed based on the findings from the two rounds of qualitative research. The methodology used in this study is explained in Section 2, followed by the descriptions of local livelihoods in Section 3, and economy and food security macro-national situational overview in Section 4. Findings across the two years of qualitative research are discussed in the remaining sections: Section 5 discusses changes in price and the impacts on local livelihoods, as well as the way people respond to the changes; Section 6 discusses a special topic of year 2012 on future farmers, which explores how higher food prices affect young people's attitudes toward working in the agricultural sector; Section 7 discusses a special topic of year 2013 on local accountability for food security/hunger, which describes how accountability mechanisms work at the local level; and, finally, Section 8 gives a brief conclusion and policy discussion.

[1]Food Security Council.

[2]Ministry of Agriculture.

[3]The Economist Intelligence Unit is a business within The Economist Group providing forecasting and advisory services through research and analysis, such as monthly country reports, five-year country economic forecasts, country risk service reports, and industry reports.

II. METHODS

Food price volatility is usually assessed through macroeconomic indicators which often makes its micro-level impacts on people's day-to-day lives escape decision-makers' attention. The overall research methodology used in this qualitative research has been designed to enable the analysis of the impacts of complex macro events and processes to micro-local conditions. Through longitudinal, in depth-topical, and multisite data collection activities, we carried out tests on a series of propositions about the impacts on dimensions of the well-being of different groups of poor and vulnerable people, through pathways triggered by changing food prices. By trying to understand 'impact', the research aims to provide a strong explanation of why and how high and unpredictable prices of food and other basic needs affect the way poor and vulnerable people live, the way they respond to the changes, and the way these responses create further changes in their well-being, which can be explained, among other things, by the conditions of people's work; eating and consumption pattern; family relations; unpaid care work arrangement—whether intra- or extra-household; social lives; and perception of as well as aspiration to the future. Furthermore, the study also looks at how well the support system—on which people routinely rely, whether formal or informal—helps them cope with the changes in the cost of living.

Box 1
Core Concepts Used in This Study

Food price volatility (FPV) — a situation in which food prices have changed more and faster than usual, in unpredictable ways. For this research, FPV is not only defined by objective variance from price trends but also implies a perception that price changes—either the occurance and or the magnitude, are become more unpredictable.

Well-being — quality of life, including not only the material aspects of life but also the quality of relationships, people's capacity to aspire and flourish, stress, worry, and subjective aspects of life.

Coping — changing behavior in the short term to manage a worsening situation—as distinct from **adaptation —** a more enduring or more systematic change in behavior to adjust to a new situation.

Unpaid care — the work involved in reproducing people and society. Unpaid care work is usually done by women and can be difficult to distinguish from unpaid **subsistence work** (e.g. on the family farm). For our purposes, unpaid care involves the work of gathering and preparing food, feeding, healing and nursing, infant and elderly care, cleaning and grooming, etc.

Social protection — arrangements to protect people against sudden drops in their well-being because of adverse events. These may be formal and official, such as government or nongovernmental organization (NGO) programs; informal or customary, such as risk-sharing system and neighborly help; or somewhere in-between, such as religious or other charitable assistance.

There are core concepts used in this study as outlined in Box 1. Those concepts are selected on the grounds that they are closely related to food price volatility and we assume that they are able to depict the real condition in the community. Furthermore, given the fact that food price volatility touches many aspects and dimensions, this study tries to enrich the findings by focusing on special topics of current interest for each year. For the 2012 study, the special topic is 'future farmers', while for the one in 2013, we focused on 'local accountability for hunger and food security'. Taking the context of relatively intense food price volatility since 2007, the broad themes of the research are as depicted in Figure 3.

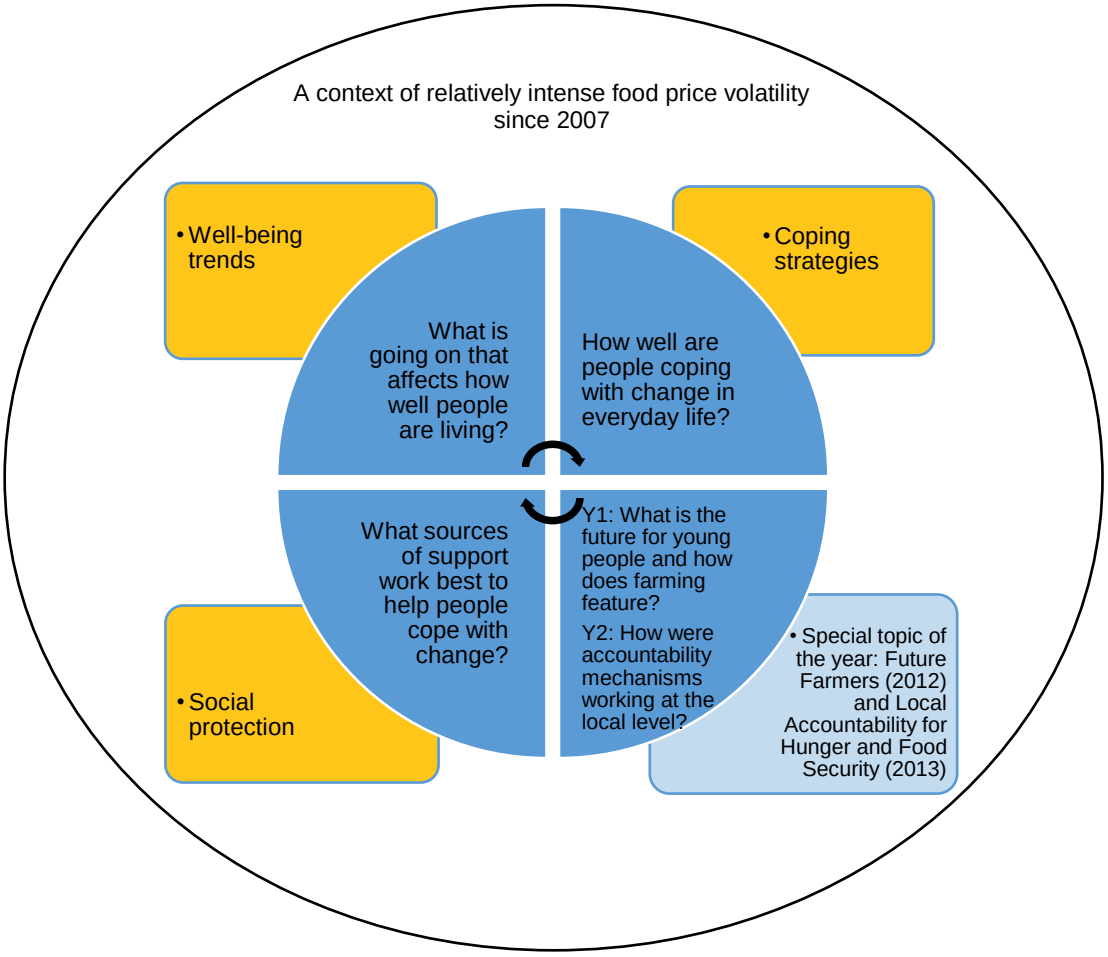


Figure 3. Research themes

2.1 Special Topic of the Year

2.1.1 Special Topic of 2012: Future Farmers

Higher food prices should attract more interest in food production and make farming appear more attractive as a livelihood option. Through the special topic on future farmers, this research aims for a sense of how agriculture looks as a livelihood option for younger people; what older generations and young people themselves feel about it; and how it features within the menu of possible livelihood opportunities, particularly given the context of food price volatility in the past five years. The questions about future farmers were proposed through focus group discussions, household case studies, and key informant interviews. Some indicative questions include:

- How do you think you might like to make a living in the future?
- How reliable do you think farming/agriculture/agri-food is as a way to earn a living in the long term?
- Would you want to choose another way to earn a living? How easy or difficult would this be?
- Do you think farming is attractive to young people? How could it be made more appealing?
- What hopes do you have for your future? What do you hope for other members of your household/children?

2.1.2 Special topic of 2013: Local Accountability for Hunger and Food Security

To research local accountability for hunger and food security, the methodology drew on the triangular conceptual framework developed for the 2004 World Development Report *Making Services Work for Poor People* (Figure 4). This triangle summarizes the main relationships of accountability between:

- citizens/service users and politicians/policymakers: citizens/service users mandate the government to protect their rights to food, set standards, and monitor or create information, often via political parties, civil society actions, donor influence, and even research like ours;
- politicians/policymakers and frontline providers: politicians/policymakers set standards for performance, provide budgets and authority, set up information systems, monitor performance, and sanction failures; and
- citizens/service users and frontline providers: citizens/service users make claims to providers, provide feedback about performance, and take direct actions when services fail.

The focus of the field research was mainly on the third relationship, yet whether or not there was a right to food and resources to match and how frontline officials are monitored and sanctioned meant entering into the political and policymaking relationships (relationships 1 and 2).

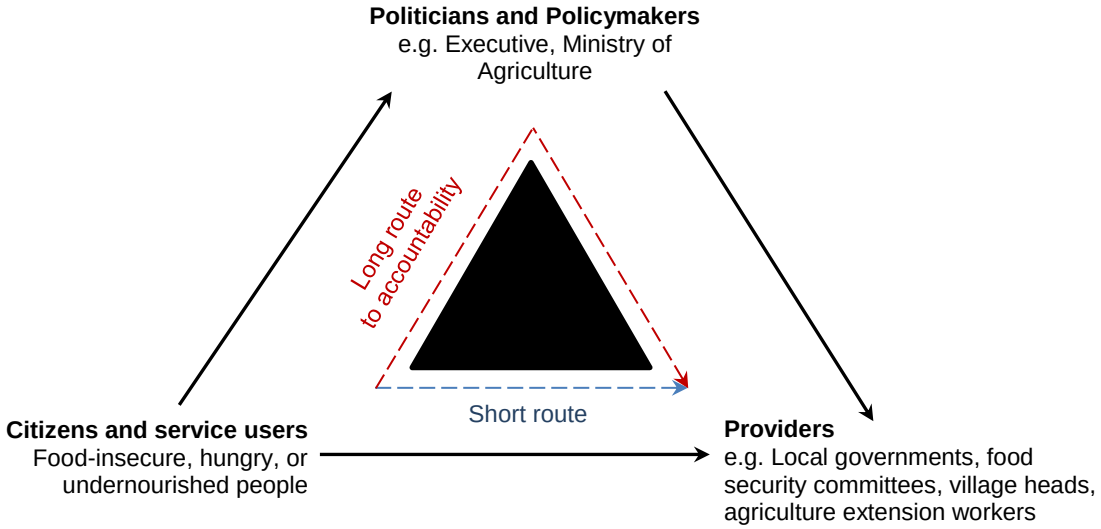


Figure 4. Conceptualizing relationships of accountability for hunger and food security

Source: The World Bank in Hossain, 2013: 2.

To study how accountability mechanisms were working at the local level, we asked people about what hungry people were entitled to and what a right to food meant to them. We also asked them to describe systems to access and complaining, or taking actions when support fell short of their expectations. We adopted an accepted framework for analyzing accountability mechanisms in public service delivery, which includes (i) the mandates or remits for action, (ii) standards for programming or provision, (iii) the existence of monitoring systems, and (iv) enforcement or sanctions.

2.2 Community Case Study

Two rounds of qualitative research through community case studies were conducted in three villages in Indonesia, located in West Java Province (Kabupaten Bekasi and Kabupaten Cianjur) and South Kalimatan Province (Kabupaten Banjar). The villages were selected based on the fact that the research team had worked there before, so the team could build on existing partnerships and have good relationships with and knowledge of the local people and issues. The Kabupaten Banjar and Kabupaten Bekasi villages have been part of a study conducted by the Institute of Development Studies and The SMERU Research Institute on crisis impact monitoring since 2009, while the Kabupaten Cianjur village had been the location of several SMERU studies on community-based monitoring system (CBMS) in 2005 and 2006, monitoring of the implementation of the Direct Cash Transfer (BLT) program in 2008, and rapid appraisal of data collection for social protection programs in 2011. The villages in Kabupaten Cianjur and Kabupaten Banjar represent the rural research locations, while the one in Kabupaten Bekasi represents the rural research location case study.

In each community, we visited at least ten households, conducted at least five interviews with key informants (at the village, *kecamatan*/subdistrict, and *kabupaten*/district levels), and held focus group discussions with four different social and occupational groups—the village elite's, women's, men's, and youths' groups. In addition, we also collected secondary data that is relevant to this study (see Appendix 1 for more detailed information on methodology).

2.3 Limitation of the Research Methods

Respondents of this research are small in size, given the number of the communities visited. In total, there are only three communities, which may be considered very modest in view of the diversity and size of Indonesia. However, there are strong rationales behind the selection of the three communities.

a) We aimed to look at processes and experiences of change in the community, so interactions at the local level and intensity are more important than scale in this research.

b) Recognizing that community dynamics are vital to food security because of their role in informal social protection, this research tries to get a sense of communities as systems or organizations in protecting its members' food security. Community case studies cannot be done well on a large scale.

c) Based on the community case studies, we will be able to extrapolate further on the basis of national price and survey data.

d) High quality qualitative data is expensive and difficult to collect, store, and analyze, so in order to obtain data on experiential dimensions and processes of change involved in living in a time of food price volatility, we decide that scale must be sacrificed for quality and depth of the information.

e) Maintaining relationships and building respondents' trust are not always easy. With the small number of respondents, it is easier to build trust so that it can effectively create mutual discussions between respondents and researchers over time.

III. RESEARCH LOCATIONS

3.1 Rationale for the Selection of Research Locations

Qualitative research was conducted in three research locations in order to get a clear understanding of how the changes in the prices of food, fuel, and other commodities affect people's day-to-day consumption patterns, social relations, perceptions, and aspirations in various contexts of livelihood. One research location is situated in a periurban area in Kabupaten Bekasi and the other two are in rural areas in Kabupaten Cianjur and Kabupaten Banjar. The Bekasi research location is situated near a major industrial complex in West Java. The socioeconomic conditions of the area intertwine with the existence and development of the industrial sectors in its surrounds. It is interesting to see the socioeconomic dynamics of the area, considering its connectedness with the global market as well as the fact that there are a lot of migrant workers working there and living together with local people. The Cianjur research location is not far from the intercity roads connecting the *kabupaten* and Jakarta, the capital city of Indonesia. The village is a rice producing area, where agriculture remains as the main source of income for most of its people. The Bekasi and Cianjur research locations are situated in Java Island (West Java Province), the most developed region in Indonesia; while the other rural research location is in Kabupaten Banjar, which is located in Kalimantan Island (South Kalimantan Province). Kabupaten Banjar is one of the major rubber producing areas in South Kalimantan, which is predominated by smallholder plantations. In 2011, the area produced 9.85% of the province's total rubber production. Besides producing rubber, Kabupaten Banjar is also a coal producing area and the research location is situated in the third largest coal producing *kecamatan* in Kabupaten Banjar. The Banjar and Bekasi research locations were involved in the earlier rounds of the research conducted by SMERU and IDS on socioeconomic impacts of the 2008/2009 global financial crisis. Both were selected because of their linkages to the global economy.

Rahmat Juhandi/SMERU

Photo 1. Farm laborers working on a paddy field in Cianjur

3.2 Main Socioeconomic Features

The local economic structure of the Bekasi research location began to change following the development of industrial compound. Before the 1980's, when the government firstly opened Bekasi as an industrial area, most of the local residents were farmers. Along with industrial development within the surrounding areas, the services sector in the village began to grow, mostly catering to the needs of the incoming migrants who work at the companies in the industrial area. Rooms and houses for rent and small restaurants started mushrooming in the village. New types of employment also emerged, such as *ojek* (motorcycle taxi) drivers, car rentals (to take employees to and from work), and industrial waste collectors. Those jobs are mostly done by the local peoplle, while the incoming migrants work in the industrial sector. In the Cianjur research location, on the other hand, most of the people still rely on agriculture (around 73% of the total population).[4] Most of them are farm laborers who do not have their own farmland. Some of them are sharecrop farmers who manage farmland to work on and share the yields with the land owner. Only 33% out of the 73% are land owners—who do not necessarily work on it themselves. The village is also a sending area of migrant workers. Most of them are female, working in Middle Eastern countries. The money sent by migrant workers to their families has brought a big contribution not only in meeting the families' daily needs but also in building a descent house for them. Since Banjar is a rubber producing area, most of the people there rely their livelihood on rubber plantation, either as the owner, *pengaron* (landless rubber tapper), or in other ways connected to rubber industry such as rubber sap transporter (*ojek* driver), rubber seedling grafter, and intermediaries. According to the village elite, most of the rubber farmers in the village are those who own their own land—smallholder plantations, while only a few of them are landless rubber tappers. The landless rubber tappers usually work for the landowners and get paid based on a sharecropping arrangement. Some others work at PTPN[5] and get paid each month. According to farmers, working for smallholder landowners is more favorable since they get paid on a daily basis.

Herry Widjanarko/SMERU

Photo 2. Buyer weighing raw rubber brought by rubber farmers

[4]Based on the 2012 Village Profile data of Village X.

[5]A state-owned plantation company conducting the plantation and processing of oil palm and rubber.

3.3 Main Types of Livelihood Risk

Strong reliance on and connection to the global market has made the livelihood of people living from export-oriented industrial sector vulnerable to international commodity price fluctuations. During the past years, several global shocks have taken place—including the 1997 Asian Financial Crisis and the 2008/2009 Global Financial Crisis—and significantly affected the livelihood of people living in the Bekasi research location. With lower international demands, industries were forced to halt their production and, consequently, cut back on the workers' working hours or even the number of workers. During this time, the contract workers are usually the most vulnerable group, as they are the ones who will be dismissed first or have their contract discontinued. Some contract workers also experienced lower take-home wages due to reduced working hours and less overtime. This had a knock-on effect on other local economic activities in the village. The turnover of local food stalls and *warung*[6] decreased—some food stall owners even had to close their businesses—because the number of customers, who are mostly migrants, significantly declined. This condition also affected dormitory owners, as many renters that have been unemployed preferred to go back to their hometown while waiting for the condition to recover.

http://www.mm2100.co.id/

Photo 3. MM2100 Industrial Estate—one of the largest industrial estates in Indonesia, located near the Bekasi research location

Challenges are also faced by people who make their living by farming in the Cianjur research location. Severe damages to dam and irrigation channels have caused many irrigated farmlands to be converted into rain-fed farmlands, making them highly vulnerable to weather hazards. Besides, farmers are now facing an increasing frequency of pest attacks. Motivation to gain high yields has encouraged farmers to do continuous cropping throughout a year, thus allowing pest infestation. In addition, the village community is also facing rapid land conversion of farmland into residential areas, especially in areas along the village main road. The increasing number of residents and the absence of adequate waste management facilities have made the village an unpleasant place to live. Because there is no dump site, the villagers litter and even dump garbage into the river. This is also another factor that contributes to the dam and irrigation damage. The village is short on water and sanitation facilities. A large number of villagers, especially those from the poor group, still use *kulah* (a small basin used for containing clean water) for bathing and washing at the same time, causing diseases such as scabies.

[6]A type of small family-owned business that sells foodstuffs such as sugar, cooking oil, and food ingredients (tomato, shrimp paste, chili peppers, etc.).

Herry Widjanarko/SMERU

Photo 4. Raw rubber

One of the biggest factors that affect the livelihood of people in the Banjar research location, who rely mostly on rubber farming, is the fluctuation of the rubber price, which depends on two major aspects. First, the price of rubber highly depends on the season. The quality of rubber harvested during the dry season is usually low. The amount of rubber sap collected is lower and it contains more water, thus lowering the price. During the rainy season, on the other hand, the quality of rubber sap is higher with less water in it. Second, the price of rubber has also been greatly affected by the international rubber price. Income of the rubber farmers are also affected by the productivity of the cultivated trees. Most of the rubber trees of the smallholder plantations are old with lower productivity. With that condition, instead of planting new trees, some of the owners sell their land to coal mining companies. Among the rubber farmers, landless rubber tappers are the most vulnerable group during the time when rubber price goes down, considering that most of them do not have steady income, assets, and/or savings. Tapping jobs are hard to get during falling rubber prices because during that time, in order to cut expenditure, the landowners usually do the tapping themselves rather than employing rubber tappers. Similarly, owners of plantation with old trees often do the tapping themselves, to avoid paying wage.

3.4 Social Protection and Community Support

Social assistance from the central government is available and can be accessed by the village people in the three research locations. Among the sources of assistance are Raskin (Rice for Poor Households), BLT and BLSM (Temporary Direct Cash Transfer)[7], PKH (Conditional Cash Transfer for very poor households with pregnant/breastfeeding mother and school-aged children), PNPM (National Program for Community Empowerment in the form of village infrastructure development and women enterprise support), BOS (School Operational Assistance channeled through schools), BSM (Cash Transfers for Poor Students), Jamkesmas (Community Health Insurance), Jampersal (Community Insurance for Antenatal, Childbirth, and Postnatal Care), and agricultural development programs in the Cianjur and Banjar research locations—including rural agribusiness development program and assistance for farmers groups.

[7]A temporary unconditional cash transfer program targeted toward poor people to reduce the impact of the fuel subsidy cut.

Besides the formal support system (from the government), the villagers can also access informal financial support from local *warung*, neighbors, and loan sharks. However, local *warung* are more favorable since loan sharks give a high interest rate for loans. For people in the three research locations, the family, relatives, and neighbors become the most important sources of informal support because they are easy to access and flexible. Among the three research locations, Bekasi has the most varied sources of support. In addition to formal and informal sources of support such as those available in the other two sample villages, there are also assistance and in-kind support given by companies operating in and around the Bekasi sample village, which is located near an industrial estate. The assistance and in-kind support received by villagers can be in the form of school fees, school stationery supplies, cash transfers for poor households, healthcare services, and basic needs and essentials. The scope of the assistance is usually limited and it is only given at specific times, such as during the Islamic fasting month (Ramadan[8]), the Eid al-Fitr celebration, or the Independence Day.

Each research location has its own characteristics that affect the livelihoods of the local people. How the people in each research location run their lives and how they survive the threats of fluctuating prices of food and other basic needs will be further discussed in Chapter 5, which displays findings of the field research activities. However, prior to that, to give us the initial understanding, Chapter 4 will provide a brief picture of macro economy as well as food and nutrition in Indonesia in general.

[8]The 9th month of the Islamic calender where Moslems fast for the whole month.

IV. COUNTRY CONTEXT

4.1 Summary of National Food Security Condition

Indonesia has shown strong macroeconomic performance over the last decade. Having recovered from the 1997 financial crisis and the 2009 global downturn, the country has succeeded in upgrading its status into the lower-middle income group. In 2012, the country's per capita gross domestic product (GDP) reached US$3,563—around 60% higher compared to that in 2008, which had been only US$2,172. However, poverty and food insecurity have remained a big challenge for the country. Although the national poverty rate had been gradually reduced from 23.4% in 1990 to 12.49% in 2011 and to 12% in 2012,[9] Indonesia still needs to put in a great deal of effort to achieve the national target of 7.55% for its poverty reduction rate in 2015—as stated in the first goal of the Millennium Development Goals (MDGs), which is eradicating extreme poverty and hunger. In addition, a large number of people in the country live in near poverty—just above the national poverty line, which becomes another challenge for the country in its effort to improve its food security status (The World Bank, 2012b).[10] As for the poor and near poor groups, food consumption constitutes a large portion of their budget, making them highly vulnerable to any shock that causes price increase—especially that of food. Increasing food price may be a widespread event which affects everyone; however, it impacts the poor disproportionally larger since they spend a greater portion of household's expenditure on food (Asian Development Bank, 2012).

Impressive macroeconomic performance does not guarantee food security of a country. Hunger continues to be a problem in many countries in Asia and Pacific—including Indonesia—despite their current achievements in economic growth and poverty reduction. For many people in these countries, food access issue due to economic barriers remains a major concern (Asian Development Bank, 2012). Poverty has undermined Indonesia's food security status since it limits the purchasing power of the poor, making it difficult for them to fulfill sufficient dietary needs. At the same time, they are also facing high food prices that further deteriorate their purchasing power. As revealed through the assessment conducted by the Food Security Council (Dewan Ketahanan Pangan/DKP), Ministry of Agriculture (Departemen Pertanian), and World Food Programme (WFP) in 2009, around 25 million Indonesians were food insecure. They lived in 100 priority *kabupaten* among the 346 *kabupaten* categorized as vulnerable to food insecurity all over the country (Dewan Ketahanan Pangan, Departemen Pertanian, and World Food Program, 2009). A similar figure, disclosed by the recent Overview of Indonesia's Performance in Global Food Security Index Survey conducted by EIU, also shows that Indonesia's food insecurity is not necessarily due to the unavailability of food, but rather because of the lack of affordability and vulnerability to food price shocks. Even though its status ranked at moderate level—64 out of 105 in 2012—Indonesia still faces challenges from potential food spikes and poor diet quality, while investment in agriculture research and development is still limited (Economist Intelligence Unit, 2012).

While it is believed that Indonesia does not face significant problems with food availability, formidable challenges are still faced on aspects of food access and food utilization as indirectly reflected in the alarming national nutrition status—particularly on indicators of stunting and wasting (The Ministry of Health of the Government of Indonesia, the National Development

[9]The national poverty line.

[10]According to the report, there were approximately 23.8% of the Indonesian population that were living below the official near-poor line of 1.2 times of the national poverty line, while 38.4% of the total population lived below 1.5 times of the national poverty line that was considered as the vulnerable group. It means that, beside the 12.49% people living in poverty, there were also 26% of the population living as the near-poor group.

Planning Agency, United Nations Children's Fund, and World Health Organization, 2010; Asian Development Bank, 2012). Although the national level figures show decreasing prevalence of underweight children under the age of five, in 2010 around 18% of under-five children were undernourished (underweight), around 36% were stunted, and around 13% were wasted. Disparity in nutritional status among children in Indonesia was also apparent among different regions, different income groups, and between urban and rural areas. In 2010, the greatest prevalence of underweight children was 30.5% in West Nusa Tenggara Province, while the lowest prevalence was 10.6% in North Sulawesi Province. Among the income groups, the prevalence of under-five children who were underweight was higher for children in poor households. Moreover, while the national prevalence showed a decreasing trend, such progress was not shown by children in poor households. There was a 2.7% increase in the prevalence of underweight children from poor households from 2007 to 2010. The prevalence of under-five children who were underweight was more evident in rural areas, not only in absolute percentage but also in the trend. In 2010, prevalence of underweight children in urban areas decreased by 4.4%, while in rural areas the number increased by 1.5% (Isdijoso et al., 2013).

4.2 National Policy Development

To address the problems discussed above, the Government of Indonesia (GoI) has made food security one of its national development priorities and instigated an institutional reform on food security by setting up the DKP as the governing body in food security, which is directly chaired by the president at the national level, governor at the provincial level, and *bupati/walikota* (district head/mayor) at the *kabupaten* (district)/*kota* (city) level. The councils are responsible for assisting the government in reviewing, formulating, developing, and monitoring various issues on food security (Presidential Regulation No. 83/2006 on Food Security Council). To monitor the food security situation, the GoI has developed an integrated food security information system called the Food and Nutrition Surveillance System (SKPG). Data and information in the SKPG are collected under the coordination of district food security boards (Badan/Kantor Ketahanan Pangan) and are used for early warnings and for the formulation of an action response [add SKPG reference here]. To achieve the national priority goals set in the 2010–2014 National Medium-Term Development Plan (RPJMN), the GoI has prepared a national action plan for food and nutrition as the guideline for national and subnational governments in formulating food security development strategies, which would also encourage nongovernment actors to be actively involved. There are five strategic approaches covered in the current action plan (2011–2015), including (i) community nutrition improvement, (ii) increasing diverse food accessibility focusing on food-insecure and poor families, (iii) development of food quality and safety, (iv) campaign for clean and healthy lifestyle especially in food consumption behavior, and (v) strengthening of food and nutrition institutionalization. To take on the demand side of the poor's purchasing power, the GoI has also introduced social protection and safety net programs, such as Raskin and BLT/BLSM (Badan Perencanaan Pembangunan Nasional[11], 2011).

The GoI has been appraised in relation to its efforts and commitment in ensuring food security. According to the 2012 Hunger and Nutrition Commitment Index (HANCI) launched by the Institute of Development Studies, Indonesia is among the countries with strong commitment in reducing hunger and improving nutrition (te Lintelo et al., 2013). However, the commitment to food security has not been followed by strong policies in revitalizing the agriculture sector.

[11]National Development Planning Agency (Bappenas).

Agriculture plays an important role in Indonesia's economy, as it is a key food supplier as well as the main source of livelihood for the majority of Indonesians. The role of agriculture is perceived through food price and farm income channel (Cervantes-Godoy and Dewbre, 2010). Although agriculture plays an important role in Indonesia's economy, the lack of investment, along with rapid land conversions, degraded farm infrastructure (irrigation, farm road), inefficient traditional intermediary chain (especially that of staple food supply chain), unpredictable weather (due to climate change), and natural as well as human-caused disasters, has been limiting the sector's productivity, forcing the country to become more dependent on imported food supplies, which are vulnerable to international food price fluctuations (Barichello & Patunru, 2009; Azadi, Ho, and Hasfiati, 2010; PEACE, 2007; Measey, 2010; Reardon & Timmer, 2005; Soviana & Puspa, 2012), as can be seen from Figure 5. Most Indonesian farmers are landless and live below the national poverty line. They are vulnerable to the ups and downs of food prices since they are the producers as well as net consumers of the food commodities. Food and nutrition security is difficult to achieve without revitalizing the agricultural sector, as indicated by the Food and Agriculture Organization in 2010, "persistence of hunger and undernourishment as well as rising food prices reflect a deep structural problem of agricultural development in many developing countries" (Siregar et al., 2012: 51).

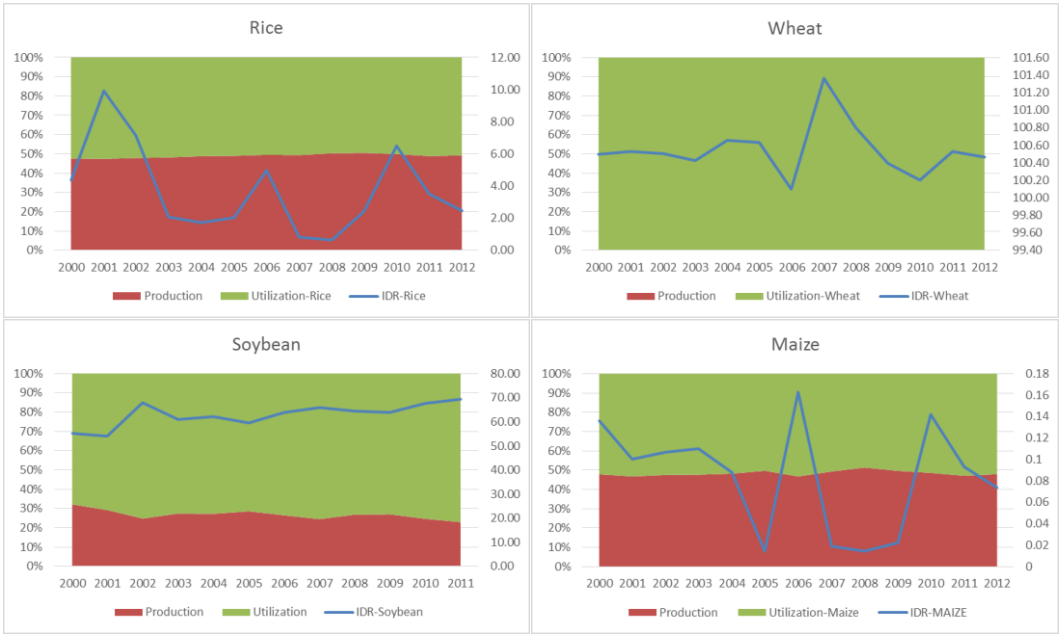


Figure 5. Import dependency ratio of important basic commodities (2000–2012)

Source: Agricultural Market Information System (AMIS), Food and Agriculture Organization (FAO).

Note: IDR is import dependency ratio.

4.3 Movement in National Food Prices

Unpredictable and more frequent food price fluctuations over the past years have led to a widespread view that food price volatility has been a common occurrence in Indonesia, as shown in Figure 6. Regardless of seasonal trend, during the past years, we have witnessed more rapid changes of the prices of important food commodities as a result of changing prices of production factors—especially fuel—as well as external factors, such as international food price, trade policy, exchange rate, and national wage rate (Prastowo, Yanuarti, and Depari, 2008; The World Bank, 2011a).

Figure 6. Price volatility as captured in newspaper headlines

The food price inflation trends are constantly showing a more volatile movement compared to those of other commodities' prices, shown by the newspaper headlines and core inflation. Slightly decreasing in the mid-2011, the food prices increased again in early 2012. The sharp increase in the food prices was led by the speculation around the government's plan to cut fuel subsidy that took place in May 2012. The prices had in fact increased prior to the expected date. Although the plan was finally cancelled, the prices had already gone up and never returned to the former point. During 2012, fluctuations of the prices of food were consistently occurring. In July 2012, there was a crisis that led to the scarcity of tempeh (fermented soy bean) and tofu (bean curd). Tempeh and tofu producers stopped their production for three days (25–27 July 2012) to express their protests against the hiking soy bean price as the main ingredient. The hike was the result of the long drought in the US. Although tempeh is considered as one of the main staple foods for most Indonesians, the country has heavily relied on imported soy bean from the US and China. During this time, prices of shallots, garlic, and chili peppers also went up. The increase in the prices of shallots and chili peppers was forced by harvest failures in some areas in Java due to the unexpected high rain intensity. The garlic price increase was related to import policy, as some came from import supply. Approaching the end of the year, in November, there was another crisis due to a hike in meat price that lasted until 2013.

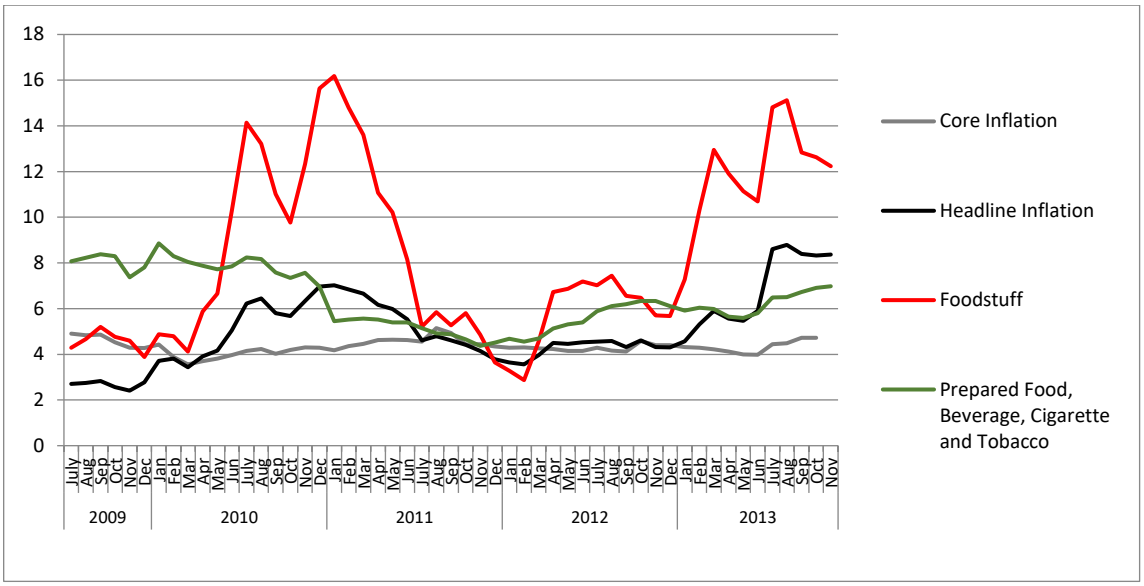


Figure 7. Inflation over the past years (YoY, %)

Source: Bank Indonesia, 2015.

In 2013, the food price trend showed volatile movement and a tendency to increase. During the year, the people's purchasing power was further deteriorated by the increasing prices of food and other basic needs, driven by the adjustment in the regional minimum wage (around 40% increase in some regions), fuel subsidy cut, electric tariff increase, Indonesian rupiah currency depreciation, and inefficient policies in the management of national food supply and demand.

The impacts of price changes occurring at the macro level will be felt down to the micro level. As illustrated by Wiggins, Keats, and Compton (2010) in their framework, the impacts of the increase in world food prices will be transmitted through changes at the national level, reaching down to the household level and finally the individual level, such as children. In the next chapter, we will see how price changes at the macro level, along with other factors both at the macro and micro levels, affect the lives of people from poor households and how they survive from day to day.

V. FOOD PRICE VOLATILITY AND PEOPLE'S RESPONSE

In the previous chapter, we saw how the national food and other important commodity prices continue to be volatile with an upward trend, in line with the world's commodity prices (The World Bank, 2011a; Food and Agriculture Organization, International Fund for Agricultural Development, and World Food Programme, 2011). This chapter will specifically discuss how impacts of price fluctuations at the macro level transmit to the lower level as felt by communities, households, and individuals. The intensity of the impacts is certainly different in each location and community group, explaining the different levels of resilience. This is closely related to their livelihood characteristics, co-existing events (including shocks), and availability of sources of support (Frankenberger et al., 2012; Food and Agriculture Organization, 2014). The first part of this chapter presents information on local prices movement in all there research locations—not only prices of food, but also prices of other basic needs. Trends of local employment and wage rates will be presented thereafter to give a brief overview of local livelihoods. The main discussion on how people respond to volatile prices of food and other basic needs will be presented at the end of this chapter along with an assessment of the prevailing social norms and sources of support available in the research locations.

This research begins with discussions involving people in the communities about changes in food prices and their causing factors. Through a series of individual interviews and group discussions, research participants in the three research locations shared a common view about the price changes, which did not only occur in food but also nonfood commodities. Although sometimes these prices decline, in general the prices of food and other commodities tend to rise over time. According to the people we spoke to, government policy to cut fuel subsidy was considered as the main factor behind the increase in the prices of food and other commodities in 2012 and 2013, in addition to seasonal and other nonseasonal factors, such as holiday festivities, harvest time, and increase in the minimum wage rate.

Table 2. People's Views on Price Increases in 2012 and 2013

2012	2013
"… The rocketing price of food nowadays is caused by the [government] plan to increase the price of oil." (AM, male, unemployed with visibility impairment, 40 years old, Bekasi) "Back then, everything was better because everything was cheap. ..." (Y, female, *warung* owner, 49 years old, Bekasi) "I'm fed up with rising prices. I'm confused as to how to control my money!" (R, female, casual worker, 40 years old, Bekasi) "… Rising prices are normal. The reason for the price rises is from people at the high level, from the president. We felt the increase when we go shopping at the local *warung*." (IH, homemaker, 54 years old, women's FGD[a] in Cianjur) "Back then, prices of the goods were still cheap, but now it's more difficult since the prices rise	"Yes, Ma'am, the prices of *sembako* had already risen. … It seems that they increased just before the fasting month had begun." (AM) "… I don't really know why the prices of goods are increasing. Some people say that the price hike was caused by the increase in gasoline prices and labor wages. I can't see anything so I can't watch [any news about it on] television." (AM) "Ummm... we have to eat. Whether or not the price increases, food has to be bought. I just buy what I need, though it is not like in the last year that I could buy various goods." (S, female, on-call domestic worker, widow, 52 years old, Bekasi) "The price is more expensive now. For chili, tomatoes, and cooking oil, when there are none left at home, of course, I have to buy them." (A, young female with six children, on-call Koran recital teacher, 33 years old, Bekasi)

unpredictably." (M, female, homemaker, 42 years old, Cianjur) "Even though the government plan to increase the price of BBM [fuel] hasn't eventuated, it has caused the prices at the local level to increase, making parents bad-tempered." (CP, male, casual worker, 18 years old, youths' FGD in Cianjur) "Food price has gone up since last year, but now it increases more significantly!" (TU, female, 51 years old, on-call domestic worker, Banjar) "The price of the goods goes up, but the number of customers goes down; particularly when the rubber price is falling." (JA, female, food stall owner, 26 years old, Banjar) "… In times of scarcity, it is difficult to get the gas [LPG[b]]. The price can go up to Rp23,000–Rp25,000 [US$2.3[c]–US$2.5] for a three-kilogram LPG cylinder. Even when it is not lacking in supply anymore, the price has increased by Rp3,000 [US$0.3] compared to last year's [which was only Rp15,000/US$1.5]." (JA) "… The volatility of the price of *sembako*[d] [the nine basic needs] has made life quite difficult for farmers whose income has been decreasing drastically due to the drop in the rubber price." (DU, rubber farmer, 49 years old, men's FGD in Banjar)	"[For example] A sour soup package. Before, it was only Rp2,000 [US$0.2], but now it's Rp3,000 [US$0.3]. This year, nothing is cheap. Sometimes I just cannot afford it. My husband's salary doesn't increase as the price does. …" (A) "[The cause of hiking prices] is the fuel price rise!" (UJ, farmer, 40 years old, men's FGD in Cianjur) "During Ramadan, prices would go up, but my husband does not work [in Ramadan month]. … So, the money I saved up before would be spent to meet family needs during the month only. …" (MX, pregnant female having two children, homemaker, 27 years old, Cianjur) "The [hiking] fuel price causes all these things [hiking prices] and then there is the Ramadan [holiday festive]; then they [the prices] even get higher." (C, male with wife going abroad to be a migrant worker in the Middle East, farm laborer, 46 years old, Cianjur) "Now everything is expensive. All prices are increasing. Just for one ounce of onion [that consists of only 5 slices], I have to pay for Rp8,000 [US$0.8]." (TU) "… It may be due the increase of the gasoline price. It is always like that." (TU) "The price of sembako corresponds to the fuel price. When the fuel price is expensive, the sembako price will be expensive as well because the transportation costs to carry the sembako increase." (DU, men's FGD in Banjar)

[a]Focus group discussion.
[b]Liquefied petroleum gas.
[c]Liquefied petroleum gas.
[d]These include rice and flour; sugar; fruit and vegetables; meat, chicken, and fish; cooking oil; milk; eggs; cooking fuel; and salt.

5.1 Price Changes Over the Past Years (2011–2013)

In 2012, the central government's announcement of its plan to cut fuel subsidies was noted by the people at the research locations as one of the major factors that caused prices to rise—mostly affecting food and other basic necessities. Even though the cuts did not eventuate at that time, the announcement caused the prices of daily necessities to increase, which further reduced people's purchasing power. In 2013, the government had finally cut the fuel subsidies just before Ramadan, bringing about doubled impacts of hiking fuel prices and hiking prices of goods that lasted for several months later.

According to the people we spoke to, the price of *sembako* started to increase during the first quarter of 2012, in anticipation of fuel price hikes following the government's announcement of its plan to reduce fuel subsidies in April 2012.[12] After the subsidy cuts were cancelled, instead of going

[12]The fuel subsidy cut was planned to be announced on 1st April 2012. However, instead of announcing the fuel subsidy cut on that day, the government announced its cancelation. The government had eventually announced the fuel subsidy cut on 22nd June 2013.

back to normal, prices remained high and further increased during the month of Ramadan (July)—in the lead-up to the Islamic holiday of Eid al-Fitr in mid-late August 2012. Prices continuously increased during 2013, with a peak in July to August—during the fasting month until Eid al-Fitr—as a combined impact of the fuel subsidy cuts that had taken place just before the fasting month and the rising prices of goods that usually happen during the fasting month until Eid al-Fitr.

To provide a better description, Figure 8 shows the summary of national price indicators movement and some important events which occurred during 2012 and 2013—especially those related to the fuel subsidy policy and national holiday events. In the figure, there is also an explanation about the time this research was carried out in the respective years.

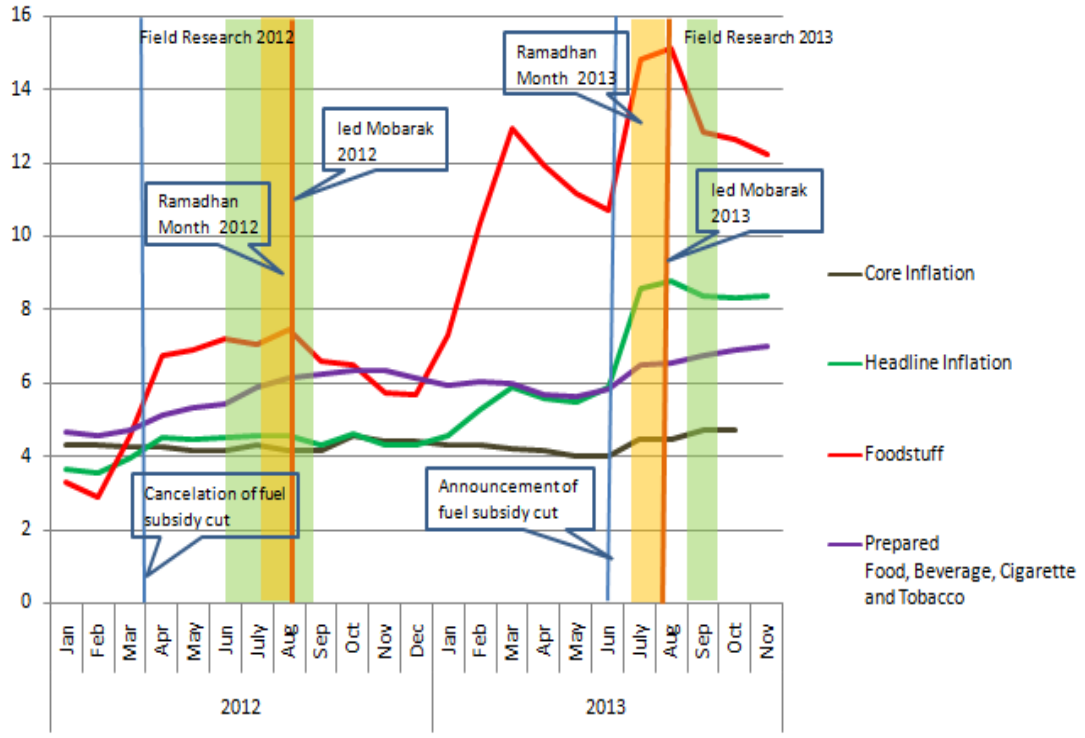


Figure 8. Price movement and events during the years (2012–2013)

5.1.1 Prices of Basic Food Items

a) The Staple That Is Not So Stable

Among all the basic food items, the people's greatest concern was rice because rice is their (and most Indonesians') staple food and comprises the biggest share of the total food expenditure of poor households—as well as other better off households in Indonesia (Timmer, 2004; Dodge and Gemessa, 2012). As an Indonesian local wisdom saying, "You have not truly eaten if you have not eaten rice." Among all the three research locations, the highest increase in the price of rice was felt by the people in Bekasi. Situated in a periurban industrial area, people in the Bekasi research location largely relied on rice bought from markets, while the poorest relied on rice from the central government's Raskin rice. As revealed, the local people (from the *Betawi* ethnic group) preferred good quality rice, which was priced at around Rp8,000–Rp9,000 (or US$0.8–US$0.9) per kilogram; this is more expensive than the Raskin and regular rice. However, some of them (the poor) could only afford to buy Raskin rice, which was priced at only around Rp1,500 (or US$0.15) per liter. If

they had money, they usually mixed the Raskin rice with better quality rice. The people in Cianjur can still rely on rice from the paddy fields they work in. Rice can be purchased directly from the farmers for a price less than that of rice from traditional markets and rice from the Raskin program. In 2013 M (female, homemaker, 43 years old) from Cianjur explained, "I grind them [the Raskin rice] to make it tastier by adding 10 liters of good quality rice."

The price of rice in Banjar was not as volatile as in Bekasi and Cianjur because people in Banjar preferred to consume the local rice. During the harvest seasons in 2012 and 2013, rice fields in the research village, the surrounding areas, and other areas in Kabupaten Banjar generally had good yields. This enabled them to fulfill the local demand and maintain stability of the price of rice. This finding is in line with an exercise conducted by de Wit (2011), who suggested that a self-sufficient country would have higher elasticity of substitution and lower dependence on trade.

Rachma Nurbani/SMERU

Photo 5. The quality of Raskin rice (left) compared with the local rice (right), as shown by M, a homemaker in Cianjur

b) High Consumed Food Posed Higher Risk to be Volatile

During 2011–2013, the overall patterns in food price changes at the three research locations showed that the prices of products with high consumption rates, such as tempeh, vegetables, chili peppers, shallots, and anchovies, experienced the greatest changes.

Even though people felt that the price of shallots and chili peppers was very volatile, it was not easy to get an answer from the people regarding the goods' current price because they always bought them in packages combined with other food items, such as a package of *sambal* (a chili condiment) that requires several ingredients.[13] When the price happened to increase, they would usually buy smaller packages[14] (at the same price) and vice versa, as offered by the seller (Photo 6). This was

[13]There are many kinds of *sambal.* The simplest recipe uses just chili peppers and salt. People usually add tomatoes and shrimp paste to taste.

[14]Other products usually bought in packages included string beans, marrow (vegetable marrow), and *melinjo* (*Gnetum gnemon*), *melinjo* leaves, corn, and tamarind for a tamarind soup; and carrot, cabbage, and potatoes for a simple soup.

because food stalls and *warung* sold their products in smaller quantities or in packages, and reduced the sizes of existing packages to deal with food price hikes. For example, tempeh was sold in smaller sizes for the same or higher prices. Besides this, *warung* operators also allowed customers to buy food on credit (Photo 7). As the prices of shallots, chilies, and other fresh seasonings are very volatile, packets of pre-made seasoning (instant seasoning) and monosodium glutamate (MSG) become a more favorable option in order to save money on spices. People also reported consuming more instant noodles.

Rachma Nurbani/SMERU

Photo 6. Menu of the day of a household respondent in Cianjur (2012) (in clockwise order): 1. A package of sambal ingredients (chili peppers, tomato, shrimp paste, and MSG), 2. Rice, and 3. Anchovies

Bambang Sulaksono/SMERU

Photo 7. A *paman sayur* (vegetable peddler in Banjar): in order not to lose their customers, sellers allow their costumer to buy food items on credit

Different impacts of price increases were shown by different food commodities. As felt by the people, the impact of the increase in the prices of chicken, beef, and fresh fish was not as significant as that of the increase in the prices of *sembako* or other products with high consumption rates because the former were rarely consumed by the respondents, who considered them as luxury foods. However, one respondent in Bekasi who routinely bought whole chickens to feed her grandchild began to buy chicken in pieces in order to adjust to the higher price.

The study has also found that the prices of multigraded products, such as rice and sugar, were different at each research location and could even differ at the same location. This was because people consumed products of different types and quality grades depending on their preference and ability to buy.

Besides the change in fuel subsidy policy and seasonal factors, the study found that price volatility was impacted by problems in commodities distribution. In Banjar, specifically, price volatility often occurred among food commodities imported from Java, such as shallots, garlic, chili peppers, cooking oil, and sugar.

The range and magnitude of price increases differed at the three research locations, as detailed in Table 3.

Table 3. Comparison of Price Changes from 2011 to 2013 at the Three Research Locations

Food Items	Bekasi			Cianjur			Banjar		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Rice (per litre)	3,500–6,000	7,000–9,000	7,500–11,500	4,500–7,500	6,000–8,000	6,500–7,000	5,500–8,000	5,500–9,000	6,000–8,000
Egg (per piece)	n/a	1,000	1,500	n/a	1,500	1,700	n/a	n/a	n/a
Eggs (per kg)	10,000–14,000	16,000	19,000–21,000	13,000	14,000–17,000	18,000	12,000–16,000	17,000–19,000	20,000
Tempeh (per piece)	1,000	2,000	2,500–3,000	n/a	3,000	5,000	1,000	2,000	4,000
Chicken parting (per piece)	2,000	3,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fish/common carp (per kg)	10,000	17,000	25,000–35,000	n/a	n/a	n/a	n/a	n/a	n/a
Fish/mackerel tuna (per kg)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	30,000	40,000
Anchovies (per package)	1,000	2,000–3,500	4,000	2,500–3,000	4,000–5,000	5,000	3,000	5,000	7,000
Vegetables (per bunch)	500–1,000	1,000–2,000	1,000–2,000	500	1,200–1,500	2,000	2,000	2,500	3,000
Shallots (per kg)	6,000	10,000	35,000	n/a	12,000	20,000	20,000	10,000–12,000	30,000–60,000
Chili peppers (per kg)	9,000–13,000	15,000–25,000	70,000–100,000	n/a	12,000	n/a	n/a	50,000	120,000
Cooking oil (per kg)	6,000–9,000	11,000–12,000	11,000–12,000	9,500	13,000	10,000	7,000–8,000	8,000–12,000	10,000–13,000
Sugar (per kg)	6,000–10,000	11,000–12,000	10,000–12,000	8,000–14,000	10,000–12,000	14,000	8,000–10,000	12,000–13,000	9,000–12,500
Instant noodles (per sachet)	1,000	1,500	2,000	1,000	1,300–1,500	1,500–2,000	900	1,300	1,500

Note: Listed in the table are ranges of prices of commodities frequently consumed by the respondents. The price ranges are based on participants' recall on the lowest and highest prices in each year. Some food items, such as tempeh, a package of anchovies, and vegetables, might have shown a decrease in price or stable price, but the respondents had received them in a smaller size or reduced amount. Data for fish and chicken is mostly unavailable since these food items are not frequently consumed by the respondents. They are considered luxurious and thus expensive for most of the research participants who come from poor households.

The pattern of changes in food prices and people's responses to the changes as mentioned above can be explained by the price elasticity of demand for food commodities. A highly consumed food commodity can be less elastic because it has a very limited number of substitutions. In addition to the availability of substitutions, consumer preference, income level, and demand reaction toward the change in income can be the factors which explain the elasticity of the food commodity. In general, shallots, garlic, and chili peppers are found to be among the less elastic commodities and are considered to be staples as well (Food and Agriculture Organization, International Fund for Agricultural Development, and World Food Programme, 2011). However, they will have different price elasticities of demand for different types of consumers. As suggested by Suroso, Firdaus, and Savitri (2014), who conducted a study to examine the elasticity of food commodities in Java Island, together with spinach and shallots, the demand for chili peppers is more elastic in urban areas than in rural areas. Meanwhile, in rural areas, commodities such as legumes, onions, and chili peppers are found to be more elastic than in urban areas (Deaton, 1989; Suroso, Firdaus, and Savitri, 2014).

5.1.2 Other Costs of Living

a) Paying More for Energy: Cooking Fuel and Transportation

The government's announcement of its plan to cut fuel subsidies in 2012 immediately resulted in an increase in the price of people's daily cooking fuel (LPG) and fares for local public transportation (*angkot*, or shared minibus taxis; and *ojek*, or motorcycle taxis). As reported by the research participants, the price of three-kilogram LPG cylinders used for cooking increased and they were sometimes difficult to obtain shortly after the announcement. Local public transportation fares also increased and caused people to increase their children's pocket money—or reallocate the existing amount of pocket money more for transportation cost and less for snacking,[20] particularly in Bekasi and Banjar, where higher fares applied to everyone. In Cianjur, fares for students remained the same as mandated by a local government regulation on transportation fares, despite the higher price of gasoline. However, it did not take long for the fares to finally increase in 2013 as a response to the fuel subsidy cut. As revealed during an FGD with the youths' group in Cianjur, the fare of *angkot* increased by around 50% from Rp1,000 (US$0.1) in 2012 to Rp1,500 (US$0.15) in 2013.

The increase in the transportation fares had further put pressure on people who travel to make a living. Take T—a 50-year-oldish widow in Cianjur who scavenge remnants of paddy from harvested fields (paddy forager) for a living—as an example. T sometimes has to travel to other villages by *angkot* to find harvested paddy fields. After the fuel subsidy was cut, she had to pay 50% higher for the fare. She complained, "Since the price of fuel had risen, public transportation cost Rp3,000 [US$0.03] per trip [it used to be Rp2,000 or US$0.02]."

b) Pressure on Production Costs: Agricultural Input Prices

During 2012, people in the rural research locations, i.e., those in Bekasi and Banjar, reported increases in the costs of agricultural production, such as fertilizer, rice milling, and farm workers. The increase in farm workers' wages had a two-fold effect. On the one hand, the wage increase benefited the farm workers but, on the other hand, it also made sharecrop tenants and landowners hire fewer farm workers or made the tenants and landowners do the work themselves, as occurred in Cianjur. Moreover, the increased costs of agricultural production forced farmers in Cianjur to use lower quality fertilizer or mix the good quality with the lower quality fertilizer. In Banjar, the price of rubber tree fertilizer rose significantly. Another concern was the difficulty in obtaining the fertilizer, as revealed during the men's FGD in Banjar: "Rubber trees must be fertilized at least twice

[20]This is usually applied to pocket money received by children for going to school. However, usually children also receive pocket money after going back from school, at home.

a year, usually every six months. Farmers have to obtain around 800 kilograms of fertilizer each year. With the present conditions, the price of fertilizer is quite expensive and also hard to get. Farmers have to form groups in order to afford fertilizer."

The concern on hiking price and scarcity of fertilizer still occurred in 2013. Most of the respondents agreed that prices of fertilizers and pesticides in 2013 were more expensive compared to the previous year and they were also complaining about the quality of the fertilizer. As explained by a village elite's FGD participant in Banjar: "Any good quality fertilizer has been noted by farmers, but then the quality was reduced. The company owners reduced the quality" (BD, male, farmer, 57 years old).

With more expensive production costs, agriculture became less feasible for some farmers, forcing them to sell their land and change their occupation. In Cianjur, some farmers decided to sell their land, use the money to buy an *angkot*, and quit their job to become an *angkot* driver.

c) Health and Education Trade Off

Hiking prices of basic needs and income uncertainty had put pressure on people's ability to afford healthcare service. People had to allocate some budget not only for paying the service and medicine, but also for the transportation to the healthcare center. As revealed by TU in 2013: "Now everything is expensive, including getting a medical checkup at the doctor or midwife. Last month, I had my blood test at the laboratory of Martapura Hospital. The cost was Rp150,000 [US$15]. It was only for a blood test; the medicines were not included."

When people did not have enough money, they would buy over-the-counter drugs at the local kiosk. Even though they felt that the drugs could not cure their illness, at least they could alleviate the pain for a moment. TU suffered gout and high blood pressure over the last year. She was supposed to visit the doctor for several times to cure her illness, but the cost had hindered her from getting the proper health treatment. As a result, she alternately consumed only over-the-counter drug or just do nothing. Even worse, her illnesses had rendered her unable to work anymore, causing her son to drop out of school. "If putting food on the table is already difficult to afford, how can I even think of paying my child's tuition? People can easily say that schooling is nowadays for free, but in fact it still needs money."

While spending on food takes up most of the poor households' budget, the volatile prices of food—and other daily necessities—have made it increasingly difficult for the poor to manage their daily expenses. People from the household case studies adopt different strategies in allocating their household's expenditure, depending on what number each daily need is on their priority list (Crosby, Norman, and McNair, 2012). The hardest decision to make comes when they are also faced with the increasing prices of production factors, which affect their income sustainability. As also found in many other research studies, sacrificing nonfood necessities—mostly health; nutrition; and, in a very limited number of cases, child education (SEWA, 2009; Khanam, Bhandari, and Mohanty, 2015)—is often the option taken by the poor in the three research locations. This happened to households that were facing long-term economic hardships while borrowing money or adopting other short-term coping strategies were not an option to them. Unfortunately, their decision to sacrifice health care and education will only put their future at risk (Raihan, 2009; Crosby, Norman, and McNair, 2012).

5.2 Local Livelihoods

The combined impact of continual (food) price volatility and changes in government fuel subsidies at the national level has been felt at the local level, mostly in the form of hikes in the price of daily necessities. Even though price volatility has become a normal thing for the people at the three research locations and the rest of Indonesia, it has impacted people's well-being in different ways—depending on their livelihoods. And, how well people lived during the past years in the context of food price volatility was also influenced by other factors, such as local labor market conditions, wages, as well as natural and environmental conditions.

5.2.1 Changing Occupation

In the urban areas of Bekasi, the structure of research participants' livelihoods was quite diverse. The local people usually have casual jobs or open their own businesses to serve the needs of migrants in the area, such as by opening a *warung*. Meanwhile, migrants usually worked as contract workers in nearby industrial compounds. There were also elderly people whose livelihoods relied on money sent to them by their children, as well as those who still worked in the agricultural sector, doing small-scale crop farming on idle land owned by other people.

Research participants in Cianjur were mostly farmers. There were landless and tenant farmers who shared crops with landowners, casual workers doing seasonal farming and construction work, and paddy foragers (usually elderly people). There were also people who worked in the nonagricultural sector, such as running *warung* and making traditional crackers in home industry businesses, as well as those who had family members working abroad as migrant workers. In Banjar, most research participants relied on smallholder rubber plantations for their livelihoods. Some of the household members worked as rubber farmers cultivating their own plantations or rubber tappers tending others' plantations (landless farmers). Others worked in the nonagricultural sector as *warung* owners, prepared food vendors, on-call domestic workers, cleaners, or construction laborers working on a project of building a special road for coal transport.

Although each research location had its own distinct characteristics, general trends appeared regarding work and business opportunities, including most of the occupations at the local level that had become less sustainable. Agricultural works became less feasible as a livelihood. Agricultural workers experienced increasingly irregular earnings and decreasing demand for their labor due to poor harvest results caused by increasingly unpredictable weather and sudden crop pest attacks, high rates of land conversion, and the increasing use of machinery. As a result, more people sold their land and changed their occupations. This phenomenon was interrelated with rapid land conversion. Agriculture also failed to attract young people to work in the sector. Young people in the Cianjur and Banjar research locations, where livelihoods rely primarily on agriculture, prefer to work in nonagriculture sectors, such as the industries and nonformal services situated around and further outside the village.

DE (female, farm laborer, 36 years old, Cianjur), felt upset about her husband's unsteady jobs. According to her, it was more difficult now than in the past for him to find a job, which meant that he spent more time being jobless. "Often he does not get any job. ... My husband does not have a steady job," she revealed in 2013.

Job opportunities for a farm laborer like DE's husband often depended on the cropping calendar. "… There will be no work. Once we are done with the planting, we wait for the rice to grow before we harvest it. After the harvest, we have to wait again for a month before the planting season begins again," she said.

On the other hand, there were more job opportunities in the industrial sector. At the three research locations, several new industries had started up beforehand and were looking for workers. These included new home and electronic appliance factories in Bekasi, a garment factory in Cianjur, and a coal mining company in Banjar. However, industrial workers also experienced their own challenges due to shorter employment contracts and less secure employment arrangements. Factories had certain selection requirements for job candidates, notably age limits. They preferred to hire young people who were still single and within a specific age range. As told by people in Bekasi, for example, there was a company that terminated the employment contracts of workers aged over 25 years old. Especially in Bekasi, the study found that many industrial workers had exceeded the age limits set by their former employers. Consequently, many of them had to leave their factory roles and switch livelihoods by opening small businesses such as food stalls around the villages in the area; this further increased business competition.

Industrial sector employers also preferred to hire female rather than male workers. This caused male workers to enter the informal sector, doing casual jobs and providing services to formal workers by becoming public transportation drivers, running *warung*, or becoming *warung* attendants. As more women became involved in paid and more permanent work, there was a shift in the division of household responsibilities. Care responsibilities in households have shifted from one person (usually the wife) to other household members—mostly other women—such as young girls and older women (grandmothers). However, in some respondents' households, the care responsibility has in fact shifted to men (usually husbands).

The hiking prices of food and other necessities have also forced some small traders to change or even stop their business. As experienced by EN (female, owner of a *warung* in front of the house, 34 years old, Cianjur), who owned a small business together with her husband in Cianjur in 2012, they ran a small kiosk in front of their house, but they had to close it. The hiking prices had made them spend more money for capital, while customers bought their goods on credit; they eventually ran out of money. After that, they decided to open another business of selling snack made of potatoes. They got their capital from the bank. However, the business only lasted for a while because the price of potatoes increased significantly in 2013 from Rp9,000 (US$0.9) per kg to Rp12,000 (US$1.2) per kg.

Arran McMahon/SMERU

Photo 8. YA's *warung* in 2012, when she was still selling vegetables; it closed down in 2013

In Bekasi, hiking prices as a result of the fuel subsidy cut ahead of Ramadan fasting month in 2013 had forced YA (female, *warung* owner, around 40 years old, Bekasi), to spend more cash for her business' daily capital. On the other hand, those who buy vegetables from her had become fewer because they preferred to buy prepared food at food stalls. This situation persisted until finally YA ran out of capital and decided to close the business.

5.2.2 Wages and Earnings

During 2011–2013, formal industrial workers in Bekasi and informal day-workers in Cianjur received an increase in their nominal wages. Wage increases for industrial workers in the formal sector are regulated by a national policy on annual minimum wage increases (Law No. 13/2003 on Labor). This policy is meant to be followed by subnational governments and increases are decided through a third party consultation process involving local governments, the private sector, and workers unions (Law No. 13/2003 on Labor and Law No. 2/2004 on Industrial Relations Disputes). The increase of minimum wage usually commences by request from the workers unions side and sometimes through a series of labor strikes. Kabupaten Bekasi has one of the highest minimum wages among industrial areas in Indonesia. In 2012, the minimum wage of automotive industry workers was raised by 28.57% (from Rp1.4 million [US$140] to Rp1.8 million [US$180] per month) and the wage of electronics industry workers was raised by 30.77% (from Rp1.3 million [US$130] to Rp1.7 million [US$170] per month). In 2013, the minimum wages were raised again by 33.33% (from Rp1.8 million [US$180] to Rp2.4 million [US$240] per month) for automotive industry workers and by 35.29% (from Rp1.7 million [US$170] to Rp2.3 million [US$230] per month) for electronics industry workers.[21]

Rahmat Juhandi/SMERU

Photo 9. Farm laborers in Cianjur enjoying lunch provided by the tenant

As for informal sector workers such as those in Cianjur, the wage increase was a result of a supply and demand mechanism determined by the workers and their employers. In 2012, male farm laborers received an increase of 42.86% (from Rp17,500 [US$1.75] to Rp25,000 [US$2.5] per half day), while female laborers received an increase of 66.67% (from Rp12,000 [US$1.2] to Rp20,000 [US$2] per half day). The highest wage increase among informal sector workers went to male construction workers, who benefited from an almost 80% increase (from Rp25,000 [US$2.5] to

[21]Information about wages was acquired from focus group discussions and interviews during the field research in 2012 and 2013.

Rp45,000 [US$4.5] per day).[22] In 2013, farm laborers did not even receive any increase in wage level. As reported, farm laborers in Cianjur received quite the same amount as they did in the previous year. There was only a little difference on what they received, as some of them got extra meal from the tenant. A better condition was experienced by construction workers, as they received a wage increase by around 11.11% (from Rp45.000 [US$4.5] to Rp50.000 [US$5] per day). The people in Banjar reported receiving lower incomes as a result of the falling price of rubber, which fell by about 40%–53.33% during 2012 and about 25% during 2013.

In relation to the changes in wages and earnings, there are some points highlighted from the three case-study locations, including the wage increase that did not balance out increased living costs. In Bekasi, house rents increased, negating increased incomes. In some cases, wage increase might also have led to an increase in the prices of basic goods. Increasing wage was also believed to have led to changes in employment conditions. Workers in Bekasi began to receive shorter temporary employment contracts, resulting in less protection and assurance. Meanwhile, the wage increase in Cianjur forced some tenant farmers and land owners to work alone without hiring in order to save money.

5.2.3 Natural and Environmental Changes

Local economic livelihoods are intertwined with natural and environmental changes. Environmental degradation increases the likelihood of environmental change, which presents the biggest issue for people living in the rural research locations involved in this study.

In Cianjur, pest attacks have been a regular occurrence, causing crop failures and harvest yields to drop. This in turn leads to reduced incomes for farmers. RU (male, small business owner, 52 years old) in 2012 described one example where pest (snail) attacks left some rice seeds empty, resulting in a yield of only half a ton, significantly lower than the one ton yield he had expected. According to an official at the local agricultural office, the continual and rapid pest attacks were the result of nonuniform cropping practices. As described by a sharecrop farmer in Cianjur, when he had just started to plant the paddy, the land next to his had been ready for harvesting. According to him, each paddy field has two grids of paddy plants with different growing stages that would allow the crops not to be damaged completely by pest attacks. When he sprays pesticides to the newly planted paddy in one of the grids, the pests will move to the neighboring ready-to-harvest paddy. However, when the latter was being harvested, the pests will move back to the sprayed grid of paddy, where the pesticides have already worn off, or to the other unsprayed paddy grid.

Meanwhile, the rubber business at the Banjar research location was also in a critical condition. Besides the fact that the rubber price was falling, production was also very low (in terms of both quantity and quality) because of prolonged dry seasons in 2012 and 2013. According to farmers, during the dry season, rubber trees produce smaller amounts of sap and store more water, making the sap more liquid and thus having poorer quality. In Banjar, the long dry season in 2013 had caused a continual decrease in rubber production. Rubber sap laborers felt that their income in 2012 was better than that in 2013. As complained about by H (male, rubber tapper, 35 years old, Banjar), a rubber sap laborer in Banjar, in 2012 he and his wife received a wage of Rp150,000 (US$15) for two days' work incising rubber trees at PTPN, while in 2013 for two days' work they only received Rp80,000 (US$8).

Findings from the three research locations contribute to the current discourse of rising nonagricultural jobs in rural areas, which has become a common feature of many villages having

[22]The working hours of farm laborers are from around 06:00–12:00 a.m. (half a day).

undergone transformation into relying on nonagricultural sectors. The Bekasi research location has gone through this process and completely become a nonagricultural village. In fact, the people at the Cianjur and Banjar research locations have been performing many kinds of nonagricultural jobs as the main or additional source of income for their households outside the growing/planting season since a long time ago. In Cianjur, outside the agricultural jobs, the people are involved in home-based businesses making traditional crackers and in construction work. Similarly, in Banjar people do various jobs in coal mines when they are not working in rubber plantations. In addition, various jobs supporting local businesses are run by people to meet the needs of the community. Some experts believe that the transformation is a consequence of the community's higher education attainment, better infrastructure supporting rural-urban migration, increasing employment opportunities in other sectors, and better access to finance that opens wider opportunities for the rural people (Reddy et al., 2014; Islam, 1997). Other things that are also considered to trigger this transformation are risk factors such as price changes (in most cases in the form of inflation) and risks from the absence of a system supporting agricultural value chains (Davis, 2001), which someway undermines the prospect of the agriculture sector. Meanwhile, agriculture is also considered to be the most vulnerable sector due to risks from more unpredictable environmental and climate conditions (Thwaites et al., 2008; Eakin, 2005; Rosegrant et al., 2008).

5.3 How Households Responded to Increasing Prices

People felt that the prices of basic goods had risen, resulting in a deficit in their family finances. In response to increasing prices, people were economizing on food expenses. In addition, they worked harder, borrowed money from others (mostly relatives), and reduced social activities. How people cope with the increasing prices and who contributes the most in their household are summarized in Box 2 and Figure 9.

Box 2
People's Ways to Cope with Price Changes

1. Reducing (the quantity and/or quality of) food intake by eating cheaper food, buying food in smaller amounts, consuming less protein-rich food (fish and eggs), and reducing the meal portions and number of side dishes.
2. Growing and gathering food by making use of the surrounding environment—foraging for leftover rice from harvested fields and collecting vegetables.
3. Switching to cheaper cooking methods.
4. Reducing cigarette consumption, switching to cheaper brands of tobacco or replacing cigarettes with rolling tobacco, and preparing coffee at home (rather than buying it from a kiosk). These methods were usually applied by men.
5. Reducing pocket money for the children and wife.
6. Reducing the budget for groceries and other shopping expenditures (clothes, etc.).
7. Going into debt—such as to the local *warung* and moneylenders.
8. Pawning and selling assets.
9. Doing side jobs.
10. Working abroad as a migrant worker.
11. Reducing the number of social activities that they attend.

Source: Consolidated from FGDs.

Results from a series of discussions conducted in the three research locations consistently show that women are the main actors in doing the coping/adjustment efforts when the household is

facing economic difficulties. While most important decisions within the household are made together with men, things related to daily coping efforts are mostly decided by women. One of the examples is when homemakers have to decide whether to borrow rice from the neighbor or a nearby *warung*, or to ask for groceries payment postponement from the *warung*.

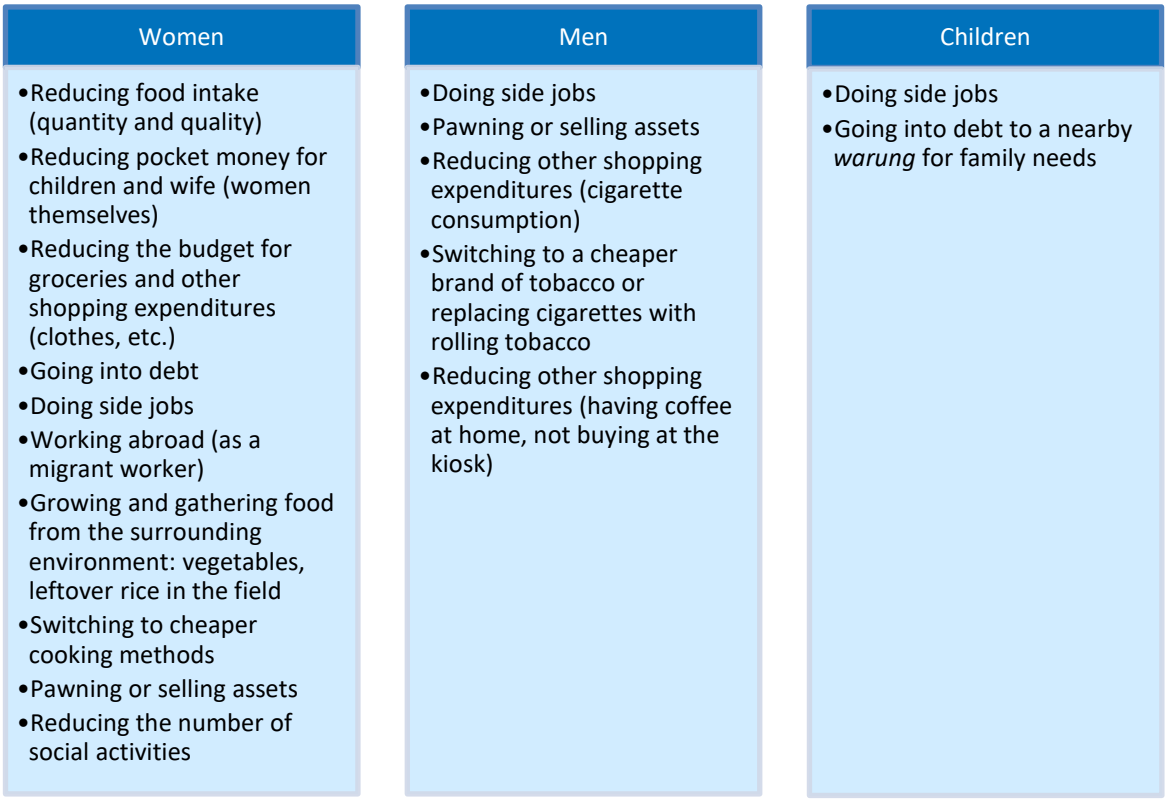


Figure 9. Division of coping efforts between household members

This is in line with findings from other studies conducted on different livelihoods in different vulnerability contexts. Studying the impacts of climate change on vulnerability and adaptation made by a group of people in Zimbabwe, Brown et al. (2012) highlighted vulnerabilites facing women due to their inferior position in the decision-making process as well as their substantial role in performing various adaptation efforts to maintain household well-being. In terms of food security, women and girls are the ones who are deprioritized among household members in intrahousehold food allocation. Furthermore, as the most responsible members of the household for preparing food for the family, women often end up sacrificing their own food consumption for the other members when their household is facing economic hardship (BRIDGE, 2014).

5.4 How Were People Eating?

Having a significant share of the total household expenditures, food comes under the spotlight in this study. How food price fluctuations affect the way people eat will be explained further in this section.

5.4.1 Having Similar Menus Every Day

Rachma Nurbani/SMERU

Photo 10. Different kinds of *asin* (salted fish/anchovies)

Even outside of times of crisis, insufficient money and resources made the poor people at the research locations unable to eat varied diets. The food they ate basically remained the same from day to day and depended on the money they had at the time. Anchovies, other salted fish, tofu, tempeh, simple vegetable soup, stir-fried vegetables, tamarind soup, and raw vegetables with *sambal* were among the regular food options in almost all informants' households (Photo 10). They usually ate rice with one or two side dishes or sometimes up to three simple side dishes a day. However, it was also found that some of the poorest households could only afford to have one side dish per day. As revealed during the 2012 research round, T and her youngest son had only eaten rice with anchovies for a long time. When asked about the food they usually consumed, she only pointed to anchovies, indicating that it was the only food which they consumed each day. "Well, this *asin* [salted fish/anchovies] is what I can [afford to] eat …," she said.

Similar conditions were experienced by RA (female, snack peddler, 67 years old, Cianjur, 2012) and her three grandchildren who lived with her. Anchovies, raw vegetables, and *sambal* were everyday foods for them. However, the anchovies were sometimes replaced with dried salted fish, if they had more money.

Food price rises put them in a more precarious situation, further limiting their food choices. S found that the constant food price increases made it difficult to provide her children with proper diets. Thus, eating tofu, tempeh, and vegetables was a luxury they could only afford around once a week. This usually occurred when she had extra money or when her eldest child got paid for working as a laundry worker.

Rachma Nurbani/SMERU

Photo 11. Different kinds of *asin* (salted fish/anchovies) on the menus of T's household in 2012 (left) and 2013 (right) showing an improvement of their welfare level

In 2013, the study found that despite their better financial conditions, T, who received more income from rice scavenging; RA, who got support from her son in Jakarta; and S, who got support from her boss, experienced no significant change in their daily diets. According to these respondents, *asin* has been the favorite side dish of the local people since a long time ago. Moreover, the increasing income could not balance out the increasing food price. They could not consider having chicken or meat, or other sources of animal protein, on their daily menu.

5.4.2 Cutting Back on the Quality and/or Quantity of Food

Increasing food prices forced poor households to cut back on the quality or quantity of the food they consumed. In most cases, they had to substitute their preferred food with cheaper and lower quality options.

Substantial changes in poor households' food consumption took place at the Banjar research location in 2012 as a result of the combined impact of the decreasing rubber price and increasing food prices. Even though not all household members worked as rubber farmers and tappers, the local economic downturn indirectly affected household incomes. Previously, when food prices were not as high, MU (female, homemaker, 56 years old, Banjar), whose husband worked as a rubber tapper, could still consume fresh fish and beef as side dishes. However, when interviewed for the first time in 2012, they could only afford salted fish. Meanwhile, an elderly couple, WI (male, retired elderly, 79 years old, Banjar, 2013) and MA (female, food peddler, 61 years old, Banjar), previously were used to eating salted fish, fresh fish, tempeh, and *sambal* as side dishes. However, the food price increases forced them to reduce their consumption of fish and tempeh.

To deal with food price hikes, an elderly lady living alone, SY (female, cleaner, 55 years old, Banjar, 2012), preferred to lower the quality of her daily food intake by consuming lower quality rice, eating salted fish, or sometimes eating only instant noodles with rice. She believed that food prices had risen more this year compared to last year. “Food prices have been going up since last year, but the recent increases have been bigger,” she complained.

Although some poor households ate the same number of times per day albeit with reduced amounts of and/or cheaper food, increasing food prices led the poorest households not only to the consumption of lower quality food but also to the reduction of the frequency of their meals. TU, a widow living with her only son, had been eating twice a day—in the morning and afternoon.

Although most of the time she ate twice a day, there were times when she had little money to buy food and had to eat once a day. Similar condition found in Bekasi research location in which a widow named L (female, farmer, 60 years old, Bekasi), felt the increasing food prices had forced her to cut down on the number of times she ate per day from three to two.

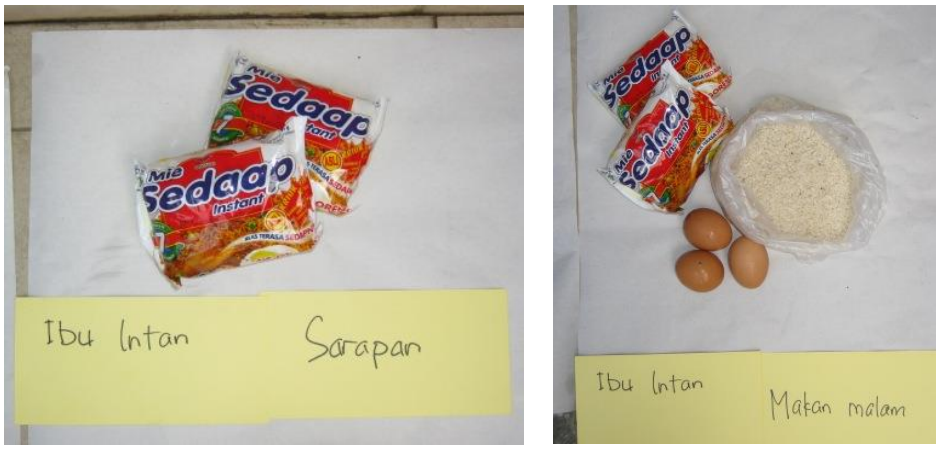
5.4.3 Eating More Prepared and Instant Food

Increasing food prices made poor households consume more prepared and instant food. These meal options were increasingly preferred over self-prepared food due to their affordability and ease of preparation. For poor households, by not cooking, they did not need to buy additional seasoning, such as garlic, shallots, and salt; cooking oil; or even firewood. Doing this also meant that they could use the time otherwise spent on cooking for working or doing other activities to make money. AC (male, casual worker doing farming or construction jobs, 30 years old, Cianjur), who had taken over responsibility for home care and household duties from his wife who worked at a garment factory, complained that it was not easy for him to prepare food for the family using limited money he received from his wife. He revealed that he had to prioritize the limited money the family had for buying rice as the main source of carbohydrate. Like the other poor people in the village, he often cooked anchovies as a side dish to provide flavor to the food. However, when his family ran out of money, he preferred to buy fritters as a side dish rather than cooking vegetables or the other items. According to him, he only needed to spend Rp3,000 (US$0.3) to buy six fritters which could feed the family for a day. This enabled him to save more money for buying rice. "We often cook *asin*. Sometimes, I don't cook and just buy *bala-bala* [vegetable fritters]. When I do not have money, I buy fritters. Six pieces for the household. They are Rp500 [US$0.05] each," AC explained.

Another popular prepared food was *nasi uduk*[23]. In Bekasi, people usually bought *nasi uduk* for breakfast. They bought portions which they divided up between family members.

The most popular instant food at the three research locations and other places throughout Indonesia was instant noodles. It only takes less than five minutes and a small amount of water and cooking fuel to prepare the food. People usually bought several packets of instant noodles which they divided up between all family members and combined with rice as a side dish. For N (female, rubber tapper, 37 years old, Banjar, 2012), meals with instant noodles were a must not only because instant noodles were the most affordable food for her family but also because they were her favorite. Some people consume a significant amount of instant noodles because they have more flavor than similarly priced foods. “Nothing [has changed]. You have to have noodles, right? Even though there are other foods, having noodles is a must,” said N.

[23]Steamed rice cooked with coconut milk and served with simple side dishes such as fried egg, tempeh, tofu, or fried vermicelli.



Bambang Sulaksono/SMERU

Photo 12. Noodles on N's household's menu: noodles for breakfast (left) and noodles for dinner (right)

During the 2012–2013 research rounds, the study found that instant noodles had become an integral part of the research participants' menu. People also became used to adding instant seasonings instead of spices to add flavor to dishes. Considering the volatility of the prices of spices, such as shallots and chili peppers, instant seasonings became a preferred option among the poor. At only Rp500 (US$0.05) per sachet, instant seasonings could help people save the money they would have otherwise used to buy shallots, chili peppers, garlic, salt, pepper, and other spices. However, the nutritional value of instant seasonings and noodles in general, compared to whole grains, fresh noodles, alums, peppers, and other spices, is likely to be low (Park et al., 2011).

5.4.4 Gathering, Growing, and Breeding

Gathering food from the surrounding environment, growing vegetables, and breeding cattle were other ways poor people obtained free food following significant price increases. Gathering food is a common practice for poor people living in rural areas and in some periurban areas where farm fields can still be found. People collected wild edible plants growing around the fields. Sometimes, field owners allowed the people to collect certain unused parts of crop plants. Different kinds of food could be gathered at different places.

When interviewed in 2012, TU said that when she had money, she could buy vegetables at a *warung* or vegetable vendor. When she did not have any money, she would gather cassava leaves or ask for some from her neighbours' field. She cooked the cassava leaves with firewood she gathered from a rubber plantation. Besides vegetables, people in Banjar (mostly men) also caught fish in a small nearby river. In Cianjur, which is still surrounded by rice paddy fields, poor people still carried out the traditional practice of gleaning for excess grains left in paddy fields following rice harvests. The gleaning, called *ngeprik* in Cianjur, was usually done by women or elderly farmers. Once a certain amount of paddy was collected, the gleaners would take the paddy to a rice mill and keep the milled rice for their family to consume or sell. As revealed by DE in 2012, after collecting eight liters of paddy, she would take it to a mill where she paid Rp400 (US$0.04) per kilogram to have it milled and would save it at her home. The milled rice from gleaning was very useful to them, especially when they were short on money. In Bekasi, which now had very few farms, poor people collected edible parts of trees called *tangkil, or melinjo* (Gnetum gnemon fruit), which grew around a cemetery. People also sometimes collected water spinach growing on abandoned land.

In rural areas like Cianjur and Banjar, people still grew their own vegetables. In most parts of the village at the Cianjur research locations, people lived in houses situated close together. Since there

was no land available for home gardening, they usually grew vegetables on farmland they looked after. In Banjar, on the other hand, some people grew vegetables such as cassava, papaya, jackfruit, and *ciwadek* in their backyards. As revealed by NU (female, health cadre, 59 years old, Banjar) in 2012, she was not very worried about the increasing food prices because her family could rely on the vegetables grown in their backyard and the fish caught by her husband in the river. In Bekasi, we also found some people who still grew vegetables on very small pieces of land. Ever since her husband passed away, to support herself, L had been growing cassava, sweet potatoes, and lemongrass on a piece of empty land belonging to someone else (a man from Jakarta) during the past year. Her earnings from her garden were quite sufficient, especially when the yield was good and there were many buyers. When there were few buyers, the goods usually were consumed by her family. Aside from growing vegetables, the study also found people breeding livestock near their houses including chickens, ducks, goats, and sheep. The livestock were considered to be small assets that could be sold off when the people needed money.

5.4.5 Prioritizing Children's Food Intake

People were trying to maintain their food intake and provide nutrition to their children—no matter how hard their situation was. For MA (female, homemaker, 42 years old, Cianjur) and her husband, they had no problem eating only twice a day as long as their child could eat three times a day. Using any money she received from her husband, she bought her child's favorite food—chicken congee[24]—which cost Rp2,000 (US$0.2) per bowl. She felt upset that she could only afford to buy her daughter chicken congee around three times a week. “I wish I could give my child congee as often as she wants, but I can only afford to give it to her three times a week,” she revealed.

With her monthly expenses being greater than the money she received from her children, it was quite difficult for Y to cover her basic living costs. Although at the time she could only afford to buy one piece of chicken at around Rp2,500 (US$0.25) for her grandson every day, she did not want to change the food she prepared on a daily basis, especially her grandson’s food.

5.4.6 Switching to Cheaper Cooking Methods

Beginning in 2007, the Government of Indonesia implemented a massive energy conversion program to change the people’s primary cooking fuel from kerosene to LPG. The program included the distribution of free gas stove sets and LPG cylinders to over 50 million households, focusing on those with low incomes. However, for most of the poor households at the research locations, LPG was still considered as something they could not afford to buy most of the time. As revealed by AC in 2012 and his wife, MI (female, garment worker, 27 years old), in 2013 in Cianjur, his family used firewood and gas interchangeably for cooking because they did not always have enough money on hand to buy gas.

Nominally, LPG is more expensive than firewood. As an illustration, in Cianjur, a small-sized cylinder of LPG was priced at Rp17,000–Rp18,000 (US$1.7– US$1.8) in 2013, while a bundle of firewood was only priced at Rp5,000 (US$0.5). However, if one calculates the total consumption, the cost incurred from using firewood would be more expensive than using LPG. As described by T and MX (female, homemaker, 27 years old, Cianjur) in 2013, on average, a bundle of firewood can only be used for cooking for only two days, while a small-sized cylinder of LPG can last until two weeks. Nonetheless, people—especially those living in rural areas—still prefer using firewood to LPG because they can always collect wood from their surroundings for free.

[24]A kind of rice porridge flavored with shredded chicken and/or chicken stock.

> [We] Sometimes [use] gas; sometimes firewood. We buy gas twice a month, but we supplement it with firewood. Otherwise, we would have no money to buy the gas. (AC in 2012)
>
> Nowadays, everything is expensive, like gas [LPG for cooking]. During Ramadan, it was Rp18.000 [US$1.8; per cylinder] and difficult to find. (MI)
>
> Luckily, we also use hawu [traditional stove using firewood]. (MI)

At the Banjar research location, we found that even though poor people had gas stoves, they more often cooked using firewood. People think that they could buy a bundle of firewood for less than the price of gas. Some of them even got firewood for free. Even though in 2013 T had finally been able to buy a gas stove and felt satisfy when using it, she still had to use it interchangeably with firewood to save money. “Cooking with firewood takes time, at least an hour. It takes a while to blow on the stove [fire] until the wood burns,” she said.

People in Cianjur and Bekasi scavenged for wood in nearby fields or plantations, while those in Bekasi collected spare wood from construction sites. For fire-lighting material, poor people in Banjar used rubber sap instead of kerosene, while people in Cianjur used dry coconut husks and fronds. Additionally, another way people saved on cooking costs was by using less cooking oil.

In addition to changing the type of cooking fuel, people also change the cooking process to save the money. Most of the time, T, an old lady living in Cianjur, cooked anchovies by roasting them without any cooking oil. It took a long time for her to roast the anchovies because she still cooked using firewood. In Bekasi, L used cooking oil sparingly; she used only three spoons of oil each time she fried food. Aside from stir-frying, people also became used to boiling food in order to save on cooking costs.

5.5 Price Volatility and Planning for the Future

Food price volatility adversely impacted people’s well-being in several ways. It forced them to spend more than they anticipated and caused them to postpone their future plans. A calculation made by an individual helps to highlight this point. In 2013, JA said that the food price hike had made her spend more capital and reduced her turnover:

> Previously, with capital amounting to Rp100,000 [US$10], I could get plenty of stuff.
>
> Previously, my turnover could reach Rp200,000 [US$20] a day; now I only get an average of Rp90,000 [US$9].

The price increases had a double impact on JA’s business since her customers' purchasing power had declined due to their reduced income following the falling price of rubber. “Prices of goods go up, but the number of customers goes down; particularly when the rubber price falls,” she said.

She planned to buy a refrigerator so that she could sell cold beverages, which she hoped would result in more customers eating at her food stall. She also planned to become a rubber dealer, if she had the capital. However, it seemed that she had to postpone her refrigerator purchase and rubber dealer plans since she ran out of capital. This was caused by the declining economy in the Banjar research location due to the combined impact of declining rubber industry and increasing prices of basic needs.

Women were among the ones that appeared to bear the brunt of the food price rises, as they had to manage the household budget. In 2012, R had to constantly turn her mind to juggling with food price hikes which did not balance out with her husband's salary as a contract worker. They were always running out of money, forcing her to economize on household expenditure by switching to instant noodles or cooking less desirable food. She also shopped at the *warung* on credit and would pay her debts back once her husband received his salary. “If I don’t have any money, I buy vegetables on credit from the *warung*,” said R.

Being constantly in debt and losing the chance to save have made RA postpone her plan to buy a washing machine, which was needed to reduce the amount of time and effort she had to spend on laundry. “I would like to have a washing machine … But there is no money for that,” she said in 2012.

Participatory photography by a respondent

Photo 13. RI had just paid off her washing machine installments when the interview took place in 2013

During the second-round research in 2013, the study found that some of the people had finally realized their wish. RI in Bekasi had finally had a new second-hand washing machine bought from her neighbor, BA (male, small business owner, 40 years old, Bekasi), who owned a business selling second-hand home appliances. She bought the washing machine for Rp350,000 (US$35) collectively with her sister who lives right next door to hers. Each of them paid Rp175,000 (US$17.5). She tried hard to save money from the cooking service she provided to a neighbor who was holding a ceremony until finally she could collect the Rp175.000 needed to pay the installment. "I paid for the washing machine using the money from the cooking job for the wedding [amounting to] Rp200,000 [US$20]. It's my neighbor’s daughter, marrying someone from outside the area," RI explained. She said that the washing machine really helped with her chore of doing the family laundry. "The washing machine … what do you call it if it was owned by someone else? Second hand? It is not new. I bought it from BA. I have just finished paying the installment today … It is much better … [with the washing machine] it is not as tiring as washing by hands."

Some concerns about children's education were revealed during the second-round research in 2013. The first child of FI (male, casual worker, 36 years old, Banjar), had just graduated from an Islamic high school but decided not to continue the education since the family did not have enough money. Now, he was worried about the education of his second child who was still in elementary school. "My aim is that the children have to go to school as high as they can. My first child has

stopped schooling, only graduating from a *madrasah aliah* (Islamic senior high school), I hope that my second child can become a teacher," wished FI.

Another story came from MY (female, high school student, 17 years old, Bekasi). Her family's financial condition has made her feel reluctant to consider pursuing higher education and thus she was thinking of looking for a job after graduating from senior high school. "If we had money, I could pursue higher education. But, we have no money, so I think I should be working instead of pursuing education. Moreover, I have no passion to go to school up to the university level. What I want is to immediately have a job when I graduate," MY confided.

5.6 Maintaining Household Well-Being: Unpaid Care Work and External Sources of Support

In the previous sections, we had already discussed how household members made various adjustments and took advantage of existing sources of support to make ends meet in the midst of volatile prices of basic needs and uncertain income. As a closing of the chapter, this section will map various efforts undertaken and the sources of support available in the three research locations, as well as social ties in the community. In particular, this section will also discuss the type of work that actually plays a major role in various household adjustments but was missed and never considered valuable, that is, unpaid care work undertaken by women.

5.6.1 The Role of Unpaid Care Work

In response to the price hikes and reduced income, people had made more effort to maintain household well-being through the unpaid care work activities they carried out. Unpaid care work activities that may include direct caring activities such as minding the children and looking after the elderly or sick people; indirect caring activities such as cooking, washing, and fetching water; and other domestic chores supporting direct caring activities or helping to make household activities run well must always be carried out, whatever hardship is faced by the households (Carmona, 2013). Looking back to the story of RI from Bekasi in 2012, the way she constantly juggled increasing family expenses due to the food price hikes and her husband's limited salary—forcing her to economize on household expenditure by switching the household food menu and shopping on credit—was someway transforming hardship into well-being.

Participatory photography by a respondent

Photo 14. As the main care provider at home, MH (female, *warung* owner, 37 years old, Bekasi) was carrying her child while preparing meal for the family

Even though they were not really aware of it, the unpaid care work carried out by a household member has indirectly supported the economic work of the other household members. In the absence of a household member who provides unpaid care work, it is impossible for the other household members to perform economic work. As experienced by the household of HU (female, food seller, 45 years old, Bekasi), to get more money for the family, HU' daughter, W (a 21-year-old industrial worker), often worked overtime, which expended more energy. HU understood her daughter's condition, so when she went home, HU would let her use her time to rest: “There are no chores assigned to me by Mother; if I have time, I help with the washing and ironing. If I do not, that is okay, too,” said W in 2012.

However, in most cases when women participate in economic work, they still have to bear multiple burdens from unpaid care work performed in conjunction with the paid work. Another case is when mother is absent from doing the unpaid care work, it shifts to another woman in the household such as the oldest daughter or the grandmother. This in fact happened in the household of H in 2013. Since his wife decided to work to help him, all the household care work was transferred to his mother-in-law and his daughter. Furthermore, now his mother-in-law lived with him. “[My] Mother-in-law takes care of the house when we are working. ... Thank Goodness, my daughter now can take care of the house,” he said. The obscenest situation is when women miss some of their “responsibilities”—to taking care of them, and there is no one taking over. In 2012, S, a widow in Bekasi was a breadwinner for her family. She had to work as a domestic worker and a nanny to earn money in order to meet the family needs. Since she had to work from early morning to late night, no one took care of her children and grandchildren. She said, “This kind of work is really tiring: I leave early in the morning and go home very late. Besides that, no one takes care of my children and grandchildren at home.”

In addition to women being the main care provider, in a limited number of cases, there were also men who carried out these kinds of “women’s works”. It was usually for the types of chores requiring physical effort such as fetching water. In some households, men did their own laundry, as each member of the household had to wash their own clothes. Men did a greater amount of unpaid care work particularly in households where women (the wives) worked, especially for those working abroad as migrant workers. It had been six years by 2013 since C’s wife worked abroad in the Middle East to earn money in order to meet her family’s needs and to build the family’s dream house. Since his wife went abroad, C had become the one taking care of the children and doing all the household chores. To some extent, doing a greater amount of unpaid care work could hurt the masculine pride of a man. This was particularly felt by AC, whose wife worked at a garment factory in 2012. As a man, he felt embarrassed about doing shopping and so he waited until the *warung* got empty first. "Well, I do the shopping more often than my wife does. It's normal. My wife has to work. I do it later during the day. … I wait until the *warung* gets empty. … I am rather embarrassed," he explained.

Rachma Nurbani/SMERU

Photo 15. BA runs a business selling second-hand appliances

One of interesting facts found during this study was that technology helped reduce the drudgery of unpaid care work. The presence of businesses providing low-priced home appliances—including the second-hand ones—and the increasing use of credit installment schemes had made energy- and time-saving technological devices more affordable to poor people in the research locations. Some of the research participants had already had a rice cooker in their house which could help them cook rice in a shorter amount of time. Some even already had a washing machine and refrigerator. For RI in Bekasi, among all the household chores, laundry was the most tiring one and she realized that she needed a washing machine to reduce the amount of time and effort she had to expend. She eventually bought a second-hand washing machine in 2013 from BA, who happened to be running a business offering second-hand home appliances. Initially, BA only provided a repairing service, but when the business grew, he saw an opportunity to expand it to include selling second-hand appliances to people in his surrounding (Photo 15). Having a refrigerator had helped NI (female, rice-cracker maker, 55 years old, Cianjur), very much since there was no need for her anymore to go to the market very often. She used to go to the market every two days; however, after buying a refrigerator, she only needed to go to the market every three or four days, as she said in 2013. With the refrigerator, she could keep her foodstuff fresh. It also meant that she could save transportation and porter costs as much as Rp10,000 (US$1) every time she did not have to go to the market.

Rachma Nurbani/SMERU

Photo 16. The communal clothes line in Wayang Alley

Limited facilities and infrastructure had encouraged the people at the research locations to work together to find solutions that could ease the burden of household chores. The study found that caring support sourced from the community can also be a form of informal support. In one of the poorest areas in the village of the Bekasi research location, i.e., Wayang Alley, there is a communal clothes line to hang the washing out. It was told that the clothes line had been used since a long time ago by people in the alley. The clothes line was built together by the local residents in a vacant lot owned by a resident who gave it up for public use. Although there was no fixed scheduling for the use of the clothes line, the people in Wayang Alley had come to a common understanding that they had to use the clothes line in turn with the others. The close cooperation between the people in the alley cannot be separated from the fact that they were originated from the same ancestor; in other words, they are actually a big family. Wayang Alley is a densely populated residential area where houses are built close to each other, someway strengthening the relationship among the residents. During the research, it also appearred that sometimes parents helped each other in taking care of children. Parents would help other parents to keep an eye on their children who were playing around when they were busy.

Hariyanti Sadaly/SMERU

Photo 17. Some women in Wayang Alley working together to help their neighbor prepare food for a wedding ceremony

5.6.2 Support and Social Ties

a) Formal Social Protection and Assistance Schemes

Almost all government assistance programs were available in the villages. In terms of health, there is Jamkesmas intended to support poor people in accessing public health services. Another social protection scheme received by the people included the BLT and BLSM programs. However, not all research participants could access them. Several problems faced by people in accessing the assistance reduce the benefits of the programs due to quality, quantity, timing, and sustainability. In regard to formal social protection provided by the government, the study found that most of the research respondents were able to buy Raskin rice, but they complained about its quality. People in Bekasi and Cianjur usually mix Raskin rice with better quality rice before cooking it. In Cianjur, Raskin rice is commonly used as an ingredient for making rice crackers blended with spices, so it would taste good. In Banjar, fewer people consumed Raskin rice, as most of them preferred the local variety of rice—except the poorest ones.

In terms of health, even though people had already received a Jamkesmas card, not many of them used it because of the travel cost and energy they had to expend to visit certain *puskesmas* (community health centers). When they got sick, they more often bought medicine at the local *warung*, or went to the nearby health center, doctor, or midwife for more serious illnesses.

In relation to BLT and BLSM, the study found that some research respondents received the cash transfer in 2012 but not in 2013. People did not really know what the reason was. People thought that it might have been due to an error in the database or that they were no longer considered poor by the government. As complained about by M in 2013, she had previously received BLT in 2012, but when BLSM (the continuation of BLT) was implemented in 2013, she did not receive the cash transfer anymore because her name was not included on the recipients' list. Similarly, she was entitled to buy Raskin rice in 2012 but not anymore in 2013. According to a village official, the quota for the Raskin program in 2012 had already been reduced and she had been eliminated from the list of Raskin recipients; she was not considered poor anymore.

b) Informal Support and Social Ties

Despite the existing formal social protection programs from the government, for people in the three research locations, primary support came from informal sources such as family members, relatives, intermediary traders, and neighbors—including *warung* and local leaders.

Among all the informal sources, *warung* is the most accessible one for the people. As revealed by RI in Bekasi in 2012, "The vegetable seller, he's the one who offers. 'Vegetables can be purchased on credit,' he said." Usually, debts were paid when RI's husband received his wages. On average, she went into debt with the vegetable seller for around Rp20,000 (US$2) each month. Sometimes, the debt could reach Rp50,000 (US$5), that is, when the family did not have any money at all. In addition to going into debt with the vegetable seller, RI also bought food such as popsicles, buns, and crackers on credit from a *warung* near her house.

Family members, especially those whose house was nearby, also became important sources of support for most of the household respondents. As revealed by EN in 2013, when her household ran out of money to buy food, she would ask her children or husband to go to an extended family member who lived nearby to ask for extra side dish. She said, "It can be [one of] my children or my husband [who looks for the food]. When they are hungry, I will ask them to bring a plate to my mother's or my sister's house [to ask for something to eat] and tell her that the food at our house is not ready yet."

For farmers, in particular, *tengkulak* (intermediary traders) are an important source of support when they need advance money. As revealed by AC in Cianjur in 2012, to "make a living", he had to regularly *nganjuk*[25] from other farmers or *tengkulak*. One of the *tengkulak* is AC's friend who do not take advantage, as usually the other *tengkulak* do. It so happened that the informant once borrowed 10 liters of rice from the *tengkulak*. The price of rice at the moment of the loan was Rp7,000 (US$0.7) per liter and so the total value of the loan was Rp70,000 (US$7). When repaying the debt, the informant only had to pay Rp70,000 (US$7), the same value at the time of borrowing the rice. The informant's debts were usually paid within one week up to one month. "[*My tengkulak friend*] is very helpful. Sometimes, I repay in a week; other times in a month," he said. It is important to note that this kind of transaction between AC and his *tengkulak* friend are quite different from normal case where *tengkulak* will take some amount of cost to be their benefit.

There was also religious-based social protection received by the people in the form of money or rice. In Bekasi and Banjar, the amount of rice received by a poor household from *zakat* (tithe) payers could even meet the needs of rice for more than a month—in some households, it was even sufficient for almost two months. A rain of donations were not only in the form of *zakat* but also in the form of *sembako* and *sedekah*[26]. As felt by N in Banjar after the Eid al-Fitr in 2013, she did not

[25]Borrow foodstuffs.

[26]Charity given usually in the form of money, but it is different from *zakat. Zakat* is an obligation after a certain condition is met, while *sedekah* is voluntary, depending on the financial ability of the giver.

need to buy rice because she received *zakat fitrah*[27] as much as 50 kg, which was equal to around a month's worth of meals. A and her family not only received two buckets of *zakat fitrah* rice (around 60 kilograms) but also received donations of *sembako* and money from the rich people in her neighborhood during Eid al-Fitr in 2013, as she revealed:

> The last time, about two days before Eid al-Fitr, I was confused about what to prepare for the big day or whether we could go to our hometown or not. There was no money. I said to myself, *Yaa Alloh* [Dear God], what should I do? All of a sudden, someone came and gave me an envelope. When I opened it, there was Rp100,000 [US$10] in it. In the afternoon, a neighbor came and also gave us donation. *Alhamdulillah* [Praise to Allah]. The next day, we received more. *Alhamdulillah*. On the eve of Eid al-Fitr, we received Rp1 million [US$100].

Besides *zakat fitrah*, there is also another kind of *zakat* called *zakat panen* (harvest tithe) given during the harvest season. This practice is particularly found in the Cianjur research location where the people's livelihoods mostly rely on the agriculture sector. The number of recipients of the *zakat panen* as well as its amount vary depending on the financial capacity of the giver and the amount of crops harvested.

Community leaders and the rich were sources of support for the poor in their surrounding. This was particularly noticeable in Bekasi. The name "doctor D" (male, doctor, around 40 years old, Bekasi) always came out in our discussions with the community as a helper of the poor. The poor who sought medical treatment from him were not charged for any cost. "When there is someone who gets a common sickness like cough and cold, he/she just goes to doctor D's clinic, which charges nothing," said AM in 2013.

As interviewed in 2013, JU (male, retired, 75 years old), an elderly who lived with his grandchildren and great-grandchild in Bekasi, received regular assistance from KY (female, around 50 years old, one of the prominent persons in the village) and her children. The money received from her family could reach Rp200,000 (US$20) to Rp300,000 (US$30) a month. He stated,

> There is no rich person who is as good as KY. She is very open-minded and welcoming to anyone and she likes to help other people. When I was young, I lived at her house to work. Now that I am older, I can no longer work at her house. I used to go to her house every month. But, eventually, I felt embarrassed, so I never went there anymore. I was worried that people would look at me as being too dependant on KY. However, KY and her children keep sending various kinds of assistance to my house every month.

Support also came from employers or companies for their employees, usually when the employees were in need of money. However, in Bekasi, such support was given not only to the employees but also to the people living in the immediate vicinity as part of the companies' corporate social responsibility. The assistance provided by these companies would take the forms of *sembako*, which was distributed when Eid al-Fitr approached; allowances for poor families; or *posyandu*[28] equipment.

Bank keliling (moneylenders) were also found as a source of support for people in Cianjur. The money borrowed from *bank keliling* in this area was usually used to meet everyday household needs. However, in Bekasi, *bank keliling* only offered loans to business owners, not households.

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[27]A form of *zakat* having to be fulfilled after fasting for a whole Ramadan month before the Eid al-Fitr prayer is said.

[28]A *posyandu* is a medium for a village/*kelurahan*/RW community to provide basic health services for its members. The main objective is to help reduce under-five and maternal mortality rates. The services, given by local PKK cadres assisted by a *puskesmas* medical staff member, include immunization, weight measuring, and general health check for children under the age of five, as well as general health check for mothers and the elderly.

Another common credit scheme accessible for people in the research locations was the installment system, where people could pay for purchased goods in installments over a period of time. Although the total purchase price became much more expensive, this system was the only means for the poor to be able to buy goods. The purchased goods varied: clothing, footwear, electronic appliances, etc.

5.6.3 Challenge from the Change in Social Ties

There are many forms of social activities and gatherings that are attended by the people in the research locations. *Arisan*[29] and *pengajian* (Koran recital gathering) are among the social activities routinely conducted by people in the three research locations. There are usually *arisan* and *pengajian* for specific groups of people based on gender and ages: *arisan* and *pengajian* for women, men, and youths. In addition, there are also forms of irregular social activities, such as wedding ceremonies. Those forms of activities served as a place for keeping in touch with others.

However, in some cases, people tend to reduce the social activities that they attend. This was particularly evident in the Banjar research location, where people endured economic hardships in 2012 and 2013 due to the decreasing price of rubber and the rising prices of basic needs. Such reduction was considered one of the efforts to cut back on household expenditure, especially if these activities required them to pay a sum of money, which was burdensome to them. As felt by MUN (female, homemaker, 56 years old, Banjar) in 2013, she decided not to participate in *arisan* anymore since the *arisan* group she was part of raised the amount of money to be paid by its members to Rp50,000 (US$5). A similar situation was also experienced by N in the same year; she quit her *arisan* group since she had to pay Rp200,000 (US$20) per week—an amount of money she was not sure she was able to pay.

Wedding ceremonies were also felt as a burden by some people, especially when they were short on cash, as they had to spend money on the gift for the bride and groom. As complained by SY, during certain periods of time of the year, she would at least receive one wedding invitation in a week. She would gift as much as Rp10,000 (US$1) for each wedding, which means that she had to prepare at least Rp40,000 (US$4) a month only for wedding ceremony donations, while her monthly salary was only Rp400,000 (US$40). She complained in 2013, “Imagine this; if I receive two or three wedding invitations in a week, how can I provide for the donations? Usually, I would only allocate Rp10,000 [US$1] per wedding. That means, I need Rp30,000 [US$3] for all these weddings. This often leaves me in a difficult situation due to the tight budget.” To deal with the situation, SY usually attended only one wedding ceremony per week, or she did not attend any at all when she had no money to give for donation. Other than donations for wedding ceremonies, she also had to prepare Rp10,000 (US$1) as an anticipation of having to give donation to the family of a deceased fellow villager.

Despite the various kinds of community support, some people felt changes in communal ties. This was particularly noticeable in the Banjar research location, where the economic situation was the worst among the three research locations. However, similar phenomenon was also found in other research locations, but in lower intensity. As in Banjar, they thought that people did not care for each other anymore. “Who would know that I have difficulties in providing meals for myself, even though I have a well-off neighbor,” S from Banjar complained in 2013.

[29] An *arisan* is a regular social gathering in which members operate a rotating savings scheme.

Economic hardships in recent years have someway affected social relations in that people have become less able to support each other. According to H (in 2013), he would rather borrow money from a *bank keliling* than his neighbors:

> I am not sure if my neighbor will lend me money; if he does not want to, I will feel embarrassed. It is much the same if I want to borrow from my family or relatives. I have to think twice. It is better to get a loan from a bank keliling; it is easier and the installments are also flexible. If you cannot pay the installments every day, it can be negotiated [postponed].

VI. FUTURE FARMERS

Agriculture is still the main livelihood for the majority of Indonesians. According to the national employment statistics in 2012, the largest single employer of the working-age population is agriculture (37%), followed by the trade sector (21%) and industrial manufacturing sector (13%). However, if we look at it further by age group, it appears that the employment structure of the agricultural sector is entering an aging period, characterized by older farmers outnumbering young farmers. It seems that young people from farming backgrounds nowadays prefer working in the industry or trade sector, as seen in the decline in the numbers of young people working in the agricultural sector. This trend poses potential challenges for future national food production.

The farmers of the future have an important role in ensuring the sustainability of the national food security system. However, the government has not shown great concern about this. In fact, the development strategies implemented by the government since 1980's has been more focus on industrial export-led sectors (Rada and Regmi, 2010). The agricultural sector often escapes the attention of the government, so the sector's development lags behind that of the other sectors. Rapid land conversion, infrastructure damage, unfair supply chain system, rural poverty, and the lack of agricultural education development are just several of the many issues overshadowing the agricultural sector (Agus and Irawan, 2006; Winoto and Siregar, 2008; Margono and Sugimoto, 2011); this makes the sector's added value very low and, therefore, discourages young people to get into the sector.

This section highlights some insights about future farmers, as the special topic of the year observed during the first phase of the study in 2012. In this section, we explore young people's attitudes toward working in the agricultural sector by addressing, among other things, the following questions: How agriculture looks as a livelihood option for younger people? How volatile food price shape young preference toward agriculture employment? What older generations and young people themselves feel about it? And, how it features within the menu of possible livelihood opportunities? The questions were asked in all research locations, including the one in Bekasi which is located in a periurban (not rural) area.

6.1 How Agriculture Features in Young People's Livelihood Prospects

Several characteristics of the young people (the respondents) we spoke to are important to be taken into account, as those may shape their preference toward agriculture. One important thing to consider is the type of livelihood of the household to which the young people belong. Most of them come from low-income households. In general, their parents work as farm laborers and sharecroppers who are landless; and low-paid casual workers, small traders, or contract workers in industrial companies. Farmers or other agricultural workers constitute the majority of livelihoods of most of the young people's parents in rural areas—Cianjur and Banjar. However, there are some young people in Bekasi who migrated from rural agriculture areas and belonged to farmer/agriculture families before they settled down in Bekasi and worked as industrial workers.

It also important to keep in mind that the young people we spoke to are those transitioning from youth to adulthood. They are in a transition phase from school to work; have just graduated or dropped out of school/discontinued their study; have already worked—although some of them have only started working; or are still at school and are dependent on their parents/family.

Knowledge of agriculture and the way the respondents define agriculture can influence their preference. As revealed during the research, there were only a few of them who see agriculture in terms of its agribusiness concept. The rest see agriculture in a fairly limited sense, that is, limited to working on a farm/plantation and growing crops.

6.1.1 How Reliable Is Agriculture as a Livelihood?

Employment has been one of the important aspects that the respondents paid the most attention to. Together with education and social relation, employment is the most frequently mentioned priorities in the current life of the young people we spoke to in three research locations. The other priorities include health, cost of living, environmental condition, infrastructure, and local governance related to policies targeted at young people. However, it also appeared that they felt a bit dissatisfied with the condition of employment. Uncertainty about the challenge in the future had been the reason for their dissatisfaction. For young people in Bekasi (semi-urban area), the perception was shaped by the fact that the industrial sector nowadays offers shorter-term contracts and that job opportunities have now become less feasible for less-educated local young people who face competition from more educated migrant young people. In Cianjur and Banjar (rural area), young people's perception was shaped by the fact that agriculture work has now become more unrealiable for making a living. On the other hand, they felt uncertain about the chance of getting a better job in nonagricultural sectors or outside of the village.

Table 4. Priorites in Young People's Life (based on ranking order)

Bekasi	Cianjur	Banjar
Health	Education	Education
Living costs	Environmental condition	Social relationships/activities
Career/employment	Social relationships/activities	**Employment**
Education	**Employment**	Economy (income)
Social relationships	Facilities/infrastructure	Transportation
-	Village governance/policy targeted at young people	Facilities/infrastructure

Source: Consolidated from Youths' FGDs undertaken in 2012 (when 'future farmers' was examined as the special topic of the year).

Looking at the perceptions of young people from both semi-urban and rural areas, we can see how agricultural work featured very little in young people's future plan. Some of the young people we spoke to in Bekasi were perfect examples of rural youngsters who migrate to urban areas for industrial or informal work. As described by two participants of a youths' FGD in Bekasi in 2012:

> Those [young] people who have moved here to work [in the industrial sector] have parents [in their hometown] who work in the agricultural sector, but their children [the young people] are just not into farming; they do not know how to farm. Other reasons [why they moved here] are that there is no arable land left; farmers' incomes are low; and maintenance costs of farmland are very high. These costs include the costs of fertilizers, pest control, and the maintenance of over-used land. (WT, male, food stall owner, 23 years old, Bekasi)

> Farming requires large capital, while the profits are low. (RH, male, food stall attendant, 24 years old, Bekasi)

In line with that, we also see how agriculture becomes more unattractive for rural young people in Cianjur and Banjar who prefer more modern and steady jobs, unlike their parents who work as farmers.

Agriculture appears to be unattractive for many young people we spoke to due to some factors:

a) Poor return and high uncertainty

Most of the respondents perceive that people who are working in the agricultural sector earn small and uncertain incomes. This perception is drawn from the experience of their parents who are farm laborers or sharecroppers, as well as from their own experience—especially for those who have ever worked in the agricultural sector, either as an unpaid helper or a paid worker. As described, the income is largely earned during the harvest season and it is not enough to make ends meet until the next harvest season.

HM (male, casual worker, 21 years old, Cianjur) and SV (female, helping her mother at a rubber plantation, 16 years old, Banjar) expressed their concerns about working as a farmer. According to them, the income from farming is not sufficient to meet daily needs, let alone saving money:

> Working in the rice field is very hard, Ma'am. You get money only once in three months and there is no extra money to save. (HM in 2012)

> Farming is not dependable. It cannot cover costs and meet daily needs. (SV in 2012)

A similar thought was expressed by ST (female, high school graduate, 19 years old, 2012, Bekasi), who had moved away from a rural area where her parents work as farmers: "If I become a farmer, I only get money during the harvest season. Yet, it is not regular and sometimes there isn't any."

According to ST, nowadays farmers' life has become more difficult than it was in the past and opportunities to become a farmhand are getting harder to come by.

They also believe that among farmers, the most improsperous ones are landless farmers. Besides not having land to be used to generate income, landless farmers can only rely on job orders from the others, mostly as low-paid farm laborers. Sharecroppers also experience hardship, as usually most of the benefits go to the landowners, while most of the risks are borne by them. JY (male, rubber seedling grafter, 19 years old, Banjar) said, "I am not thinking of becoming a farmer. We don't even have any land to cultivate. It seems impossible for a landless farmer to make a good living."

b) Negative stereotypes around agricultural work

One potential reason for the respondents' lack of willingness to work in the agricultural sector may be due to the way they perceive agriculture. For most of the young people we spoke to, working in agriculture means physical labor—hard, hot, and dirty—and it only suits less-educated people. Some respondents (mostly the female ones) gave a particularly surprising answer regarding why they do not want to work in the agricultural sector. Again, it is related to the viewpoint that working in this sector means spending the day in the field; they thought that it would make their skin dark and their body dirty, besides the fact that it is overly tiring.

> I never want to be a farmer. Never, Ma'am. I don't want to work under the sun. My skin will be darker. My mother said that I shouldn't be a farmer [because] the income is not enough to provide for life. It doesn't have a future. It'd be better to look for a job in the city ... . (ST, 2012)

> … It is better to become a factory laborer. I don't have to work under the heat of the sun. It is not dirty. The wage can be used to buy a cell phone, clothes, cosmetics, bags, or other things needed by a teenager. It can be saved for parents, too. (ST, 2012)

> I do not want to be a farmer like my grandmother. It's too tiring to hoe every day. (SR, female, elementary schoold student, 10 years old, Bekasi)

> It's not that I don't want to go to the rice field to cultivate the land, but every time I do that, my body and hands would become itchy. I would like to become a farmer and own a big farmland with other people working on my field, while I just get the harvest and the money. (TT, female, unemployed elementary school graduate, 21 years old, Cianjur)

> There are lots of mosquitoes at the plantation, so women [girls] are less interested in it [working as rubber tappers] and prefer staying at home. (Youths' FGD participants, 2012, Banjar)

Considering the perspective that agricultural work is only for less-educated people, LY (female, junior high school student, 16 years old, Banjar) said that she is never interested to be a farmer. She even never helps her grandmother work in the plantation. In her opinion, she has to achieve a high level of education. That way, she can get a good job as a teacher or an employee at an office. She does not want to be like her parents and grandparents.

c) Jobs in other sectors offer more attractive rewards

Young people are more interested in getting a job in the "modern sectors" such as mining in Banjar, manufacturing in Bekasi, and garment industry in Cianjur, especially the ones that are under a contract of permanent employment. Getting that kind of job will not only give them a bigger salary but also a higher social status. According to HM, "Working in a factory is much better; you get money each month and the money can be saved for buying land for the parents."

As stated by YN (male, agricultural vocational school student, 17 years old, Cianjur), one reason why young people do not want a farming job is due to its lack of prestige: "Teenagers here are very skeptical; they want to see results first [and] it is all about prestige; prestige comes first."

6.1.2 How Does Volatile Food Price Shape Young People's Preference toward Agriculture?

Most of the young people we spoke to are aware of food prices that become more volatile with the rising trend. They also believe that farmers do not enjoy any benefit from the increasing food prices, except increasing the cost they have to spend for their daily needs.

> Price rises and their impacts are felt by parents first, then by children. Parents don't reduce their spending but they become more cautious. (RT, female, high school student, 15 years old, 2012, Cianjur)

They are fully aware that the benefits from the rising prices will most probably go to the intermediary traders, not the farmers. As described by a group of young people during the FGD in Cianjur in 2012:

> It is better to become a foreman or a boss.

> Becoming a farm laborer is not promising. There is a system for buying up agriculture commodities that all farmers have to follow on.

> From the farmers to the buyers the price is Rp35,000 [US$3.5] per quintal. The buyers to the millers sell at Rp400 [US$0.04] per kilogram—Rp40.000 [US$4] per quintal. Then, it is handled by an agent who directly markets the product [rice] which is sold in the mill's packaging; I don't know the price. The buyers or intermediary traders make the most profit.
>
> Farmers have to be ready to accept profit and loss.

6.2 What Occupations Do Young People Take Up These Days?

For most of the respondents, future employment is more oriented toward sectors outside the agricultural sector and should be located in nonrural areas. Their desire is to work in a modern office in a big city. However, due to lack of education and experience, they have to end up doing an informal kind of job or a formal but temporary-contract job.

In Banjar, the occupations commonly taken up by young people are rubber tappers, construction workers, and parents' assistants in attending *warung* or tapping rubber. In Cianjur, the occupations comprise casual jobs such as construction workers; farm laborers; parents' assistants in attending *warung*, breeding cattle, and doing farming; domestic workers; and (a few of them, usually female teenagers) garment industry workers. Temporary-contract workers at the manufacturing industry, *warung* attendants, and domestic workers are the common jobs in Bekasi that are taken up by the respondents. Even though some young people work in the agricultural sector, for them agriculture is seen as the last resort:

> If I go to the field and become a farmer, I have to wait for the result [money] to come during the harvest season. I'd rather help my brothers at the workshop, as I'd get money any time. But, I would think about becoming a farmer if I could not get a job anywhere else. (MN, male, junior high school graduate helping out at his brother's garage, 18 years old, Cianjur, 2012)

Strong resistance to agricultural work was revealed during the in-depth interviews and FGDs that we held, such as the ones we had with the young people working in the manufacturing sector in Bekasi. They spoke of a lack of job security, as they were employed on a contractual basis from anywhere between three months to a year; the fact that factories only employ those below the age of 23 and that anyone above that age has to pay to those that run the factory to be considered for employment; and the long exhausting days (two of the people we spoke to had been hospitalized due to exhaustion) and only ten-minute breaks after every two hours to go to the toilet and have a drink or a snack. Yet, despite all this, when they were asked if they would consider working in the agricultural sector, the response was an almost immediate "no way".

Moreover, some respondents even said that it would be better to get married than to be a farmer. As stated by KU (female, garment industry worker, 21 years old, Cianjur), none of her girlfriends are farmers. Many of them moved to Jakarta to work as domestic workers. However, there are also some of them who remain in their hometown, but they do not do farming. They got married and became a homemaker. KU also revealed that if someday she does not work at the garment industry anymore, she will not do farming. It will be better for her to just get married like some of her friends did.

6.3 How Do Parents View Their Children's Livelihood Prospect?

Most of the respondents' parents both in rural and periurban areas do not want their children to be a farmer and this seems to be a strong factor that influences the responses we received from the young people as described in Table 5.

Table 5. Responses of Respondents' Parents to the Question, "Would You Like to See Your Children Work in the Agricultural Sector When They Are Older?"

Rural Areas (Cianjur and Banjar)	Periurban Areas (Bekasi)
"Becoming a farmer is fine as long as it is his own land that he's working and not other people's." (DE) "Whatever occupation is fine as long as it's legal and sufficient to make a living. He can be a farmer, but a better one, unlike his father [me]. He should be a farmer with land, so his income will be larger than mine. Do not be a laborer like me!" (AC) "I will never allow my children to work as a farm laborer like me. It's enough that I'm the only one [in the family] who suffers the life as a farm laborer." "Making a living as a farm laborer, we would live as a poor person. We will only get money depending on the season. We have to wait for the planting season [to get a job]. What about in between the seasons? How can I make a living? I don't have any other skills." "Maybe it's my destiny to be a poor person and to be a farm laborer. Look at my son, Andika. I didn't let him to be a farm laborer. He is now working at Balsup factory. He can now help his parents and give his siblings some pocket money." "By becoming a farm laborer, even only to buy food, the money would not be enough. Then, how can we send our children to school to get a higher education? They can only obtain an elementary school diploma. Then, how can they get a decent job? Eventually, they will end up as a farm laborer anyway and they will keep living in poverty—like their parents." (C) "As a parent, I obviously want a better living condition and arrangements for my children. But, realizing our current condition, I do not wish to burden myself with that ambition, as our daily problems have burdened us more than we can imagine." (H) "Here, there is no other option but rubber tapping." (MD, female, homemaker, 35 years old, Banjar)	"Even the men do not want to be farmers." "[Being] a farmer … It's exhausting! I pray that my children can get a job in a factory and marry a good man. Regarding [my daughter], if she can no longer work [in a factory], then … well she should get married. I don't want them [my children] to have a difficult life like now." (HU) "No way! Farmers never prosper! There is no progress if you are a farmer, just the people who own the fields that get ahead." (RA) "It is no longer the time for a child sent to school to only become a farmer; [if that is the only option,] then it would be better to just marry them off." (BA) "If possible, I don't want them to work as farmers. It is tedious and tiring to work under the sun, yet only a small amount of money is received. It is not enough to make ends meet." (S) "Farmer? Well, the money would only come after some time … It'd be better to become an employee or open a business. Farmers do not have a stable income, like my husband." (MM, female, homemaker, 60 years old, Bekasi)

6.4 How Can Farming Be Made More Attractive to Young People?

With a decreasing number of young people working in the agriculture sector, it is not impossible that in the future Indonesia will experience a shortage in labor working in the sector that would some way impact on food production. The latest Agricultural Sector Employment Statistics released by the Ministry of Agriculture in 2014 show that in 2013 as many as 61% of people working in the agriculture sector are those at 40 years old of age and above (Kementerian Pertanian, 2014), 16% of which are those aged over 60 years old. This indicates a low labor force regeneration for the agricultural sector.

As found during this research, agriculture is often seen as the last option when people cannot find jobs in other sectors, in most cases, due to lack of skills. Still according to the 2014 Agricultural Sector Employment Statistics, in 2013 as many as 79% of the population working in the agriculture sector are those with elementary and primary school education or lower, including those who have never attended school. Only 21% of people working in the agricultural sector are those with junior high school education and above, and 8% are those with high school education and above.

The decreasing interest of people to work in the agriculture sector and the challenge of low-skilled labor force become the underlying problems for the sector to increase its added value and productivity. The question then arises, "How can farming be made more attractive to young people so that we can meet the future challenge of increasing food demand?"

All the aforementioned figures have shown us that farming is less likely to be considered as the main source of livelihood for young people in the future. However, there are still a few young people who have a strong interest in working in this sector. Among them are respondents of this study who see agriculture in terms of its agribusiness concept. These young people also see the importance of agriculture from the long-term perspective, as one of them, YN, said, "Becoming a farmer is only interesting for the older generation, while farmers are badly needed in Indonesia; if there is no rice farmer, then we can only eat vegetables."

In YN's opinion, attracting the attention of young people toward the agricultural sector is a bit difficult, but this could be achieved by giving a few examples of success. One of the ways he suggested is by developing clean farming (such as hydroponic farming) using water or waste woodchip media. Other youngsters suggest using modern technology, upgrading agriculture infrastructure, and growing cash crops that can generate income in a shorter period of time.

> To make the agricultural sector more attractive to teenagers, it has to use supporting equipment (rather than only relying on manual work) such as tractors. It also needs to upgrade or fix the irrigation system because if it relies on rented pumps, this will cost Rp8,000 [US$0.8] per hour, which is considered expensive. (WO, male, industrial worker, 23 years old, Bekasi)

> [They can] grow vegetable crops with a shorter growing time, such as chillies and eggplants, so that these crops can be sold more often. (RM, male, industrial worker, 24 years old, Bekasi)

In addition, YN also mentioned the importance of developing and disseminating farming knowledge to young people. This is in line with the concern expressed by JY: "It is ironic that there are no agricultural majors in the [local] vocational school, while it is located in the middle of many rubber plantations."

Providing a better education about agriculture may help broaden the young people's horizons so that they perceive agriculture more favorably and this may allow them to make more informed

decisions with regard to agriculture and their livelihood prospect. However, what came out of the various in-depth interviews and FGDs that we held was that agriculture features very little, if at all, in the curriculum of the agricultural education that the young people receive. In fact, there was only one person who mentioned that he took agricultural lesson in high school and that he wanted to go back to his hometown and work in the agricultural sector. This suggests that educating young people on this subject can have a positively influencing effect on young people's decisions to enter the agricultural sector, potentially giving rise to a new, highly educated workforce within the sector.

VII. LOCAL ACCOUNTABILITY FOR FOOD SECURITY/HUNGER

7.1 National Policy on Food Security

In the 2012 Hunger and Nutrition Commitment Index (HANCI), Indonesia ranked 7th out of 45 countries assessed for their commitment toward dealing with hunger and reducing rates of malnutrition (te Lintelo et al., 2013). The government's commitment has been apparent through the various rules and policies it has put in place that have made the right to food a fundamental human right, the upholding of which is the main responsibility of the state. Law No. 18/2012 on Food clearly states that[30]

> Food is the primary basic human need, the fulfillment of which is part of the human rights guaranteed by the 1945 Constitution of the Republic of Indonesia, which acknowledges it as a fundamental means for realizing quality human capital.
>
> The state is responsible for ensuring that food is available and accessible, and that the consumption of food is sufficient, safe, of good quality, and nutritionally balanced at the national and regional levels in an equal way for individuals in all territories of the Republic of Indonesia at all times by utilizing local resources, institutions, and culture.

At the strategic policy level, the government has included food security as one of its national development priorities in the 2010–2014 National Medium-Term Development Plan (RPJMN 2010–2014) in order to enhance food security and self-sufficiency, fulfill the community's nutritional requirements, and revitalize the agricultural sector.

To support the implementation of the national strategic vision for food security policies, the government has established the DKP and the Food Security Agency (BKP). DKP is tasked with assisting the government in formulating national food security policies, conducting evaluations, and developing coordination for national and subnational food security policy programs. BKP serves the day-to-day operations of the DKP and is responsible for carrying out assessment, development, and coordination activities in relation to food security. Since its establishment in 2009, the BKP Central Office has developed programs to support food availability and the fulfillment of nutritional needs at the household level, including the Strengthening of Community Food Distribution Organizations (P-LDPM), Acceleration of Food Consumption Diversification (P2KP), and Sustainable Food Reserve Garden (KRPL) (Badan Ketahanan Pangan, 2012; Badan Ketahanan Pangan, 2013a). Implemented by the BKP, the programs will complement the various programs that have been carried out by the government—especially in agriculture-related sectors—to increase food production including free seed/seedlings, subsidized fertilizer, organic fertilizer centers based on farmer groups, the strengthening of national seed and seedling institutions, integrated crop management field schools (SL-PTT), and Rural Agribusiness Enterprises Development (PUAP).

To monitor the achievement of the food and nutrition security problem management targets, the central government has developed the Food and Nutrition Surveillance System (SKPG), which is administered by working groups at the national, provincial, and *kabupaten*/*kota* levels of government. The working groups are chaired by the regional government heads—governor at the provincial level and *bupati*/*walikota* at the *kabupaten*/*kota* level. The groups' activities are

[30]Law No. 18/2012 on Food has replaced Law No. 7/1996 on Food.

coordinated by the food security agency/office/work unit in each region in their capacity as DKP secretary. Members of the working groups comprise representatives from the regional food security agencies/offices/work units, regional development planning agencies (Bappeda), regional secretaries or assistants of provincial governments, agriculture agencies, horticulture agencies, animal husbandry agencies, fisheries agencies, forestry agencies, health agencies, village community empowerment agencies, labor agencies, industry and trade agencies, statistics offices, regional family planning work units (SKPD-KB), social affairs agencies, in-field technical advice coordination agencies, natural disaster management implementation agencies/units, the National Logistics Agency (Bulog), and the police at the provincial or *kabupaten*/*kota* level (Badan Ketahanan Pangan, 2013b; Kementerian Pertanian, 2014).

Despite the various laws and policies on food security that have been introduced by the government, in reality many Indonesians still face a range of problems in their daily lives as food price fluctuations and food shortages have become more frequent, resulting in subsequent economic and social costs that make the poor and near-poor households vulnerable to food insecurity (Sujai, 2011; Nurhemi, Soekro, and Suryani, 2014). Various food security programs that are very well designed and planned by the government, in fact, still encounter various obstacles in their implementation at the local level. Therefore, it is very important to review government accountability in relation to food security by looking at the effectiveness of policy implementation at the local level of government that deal directly with the people. This became a strong reason for the research team to explore local accountability for food security/hunger and present it as the special topic of the year for the second phase of the study in 2013.

7.2 Accountability for Food Security: Critical Review of Local-Level Policy Implementation

Based on our assessments at the three research locations of this study (Kabupaten Bekasi, Kabupaten Cianjur, and Kabupaten Banjar), several criticisms were raised in relation to the food security policy implementation at the local level,[31] including the coverage of existing food security and agriculture revitalization programs that remained limited; some of the programs were even still at the pilot project stage. As for agriculture revitalization programs, they mostly covered farmers who were members of farmers groups, excluding many poor landless farmers who were not in the groups.

7.2.1 Poor Program Dissemination and Unstandardized Knowledge among Local Officials

The dissemination of food security and agriculture revitalization programs, as well as the SKPG, had not been conducted properly to all levels of government and the community. When we carried out the village-level assessments, it was clearly evident that village authorities had not heard of SPKG and did not understand what food security referred to.

Local officials seemed to have unstandardized and incomprehensive understandings of the definition of and criteria for food security/insecurity.[32] Even though they work for agencies involved in the SKPG team, their understanding was mostly based on their personal opinion and varied

[31]The term local level used here refers to *kabupaten*/*kota* level and below.

[32]The comprehensive definition that is widely accepted is the one from FAO which covers the four main dimensions of food security: availability (physical availability of food), access (economic and physical access to food), utilization (food utilization), and stability (stability of the other three dimensions over time).

among officials and agencies. These differences could be influenced by the scope of local officials' work. Through the assessments, we tried to find out more about their knowledge on food security, such as by asking the definition of food security they usually used officially or they knew based on personal opinion. In asking the definition of food security, we simply used the official Indonesian term for food security—*ketahanan pangan*—or otherwise we asked about food insecurity—*kerawanan pangan*—in Indonesian.

Some local officials viewed food security more in terms of availability and accessibility only, as in the availability of food and the community's ability to buy it. However, some others viewed food security in terms of utilization, such as nutritional value, quality of food consumed, and food variety. Differences in perceptions and knowledge were also evident when respondents were asked about the criteria for the food insecurity situation in their regions. They generally associated the criteria with accessibility (ability to buy food); food availability (predominantly rice) due to food production and the occurrence of disaster; and utilization due to eating patterns and quality of food consumed (food variety and nutritional value).

Table 6. Local Officials' Perceptions on Food Security/Insecurity

Availability	Accessibility	Utilization
"If farmers do not have a stock of rice to last for three months, it can be classified as food insecurity." (IS, male, agriculture office staff, around 40 years old, Banjar) "Several regions have food insecurity because of yearly flooding." (HS, male, food security office staff, 41 years old, Banjar) "The data shows that there has been a surplus of rice during the last several years … ." (AP, male, agriculture office staff, 55 years old, Cianjur) "'Food insecurity' is when a major disaster occurs in an area, such as extreme flooding or drought, which causes a lack of food … . [And] If a farmer's rice stock runs out for over a month, it can be classified as a case of food insecurity." (ND, male, village office staff, 42 years old, Banjar)	"The term 'food insecurity' is when they [community members] cannot fulfill their need to eat three times a day. So, going from eating three times a day to twice a day can be classified as food insecurity; that's the standard nationally … . So, the only point of reference is income. [Food security is] when the minimum [income] of Rp50,000 [US$5] per day or Rp1,500,000 [US$150] per month is received. If less is received, it can be classified as food insecurity," said the respondent, without detailing whether the income was for one person or a household. (HS) "… There hasn't been any food insecurity. But, there could be food insecurity or hunger at the household level. And that would be due to poverty because the family is poor." (AP) "The indicator is as long as they can buy rice [they are not experiencing food insecurity]." (DH, male, regional development planning office staff, around 50 years old, Banjar) and (NR, male, regional development planning office staff, around 50 years old, Banjar) "As long as food can still be purchased, it cannot be called food insecurity." (ND)	"Therefore, these days, if there's a region [where community members predominantly] eat cucumber and corn, don't say they are experiencing food insecurity, don't do that. This is what must be developed … . The most important thing for the majority of people here is that they feel full. They lack knowledge on food variety. Their carbohydrate [intake] is centered on rice," complained a respondent because a large part of the community in Indonesia feels there is food insecurity when people cannot eat rice, even though there are many other types of food that can be eaten as staple foods. (JD, male, trade and industrial affairs office staff, 54 years old, Cianjur) "The people's main priority for eating is to fill their stomachs." "And if they can't eat rice, they say they have not eaten, even if there are still many other types of produce that can be processed into certain things [and used to replace their rice intake], such as corn, cassava." "There's never been food insecurity here." (DH)

7.2.2 Unclear Monitoring and Reporting Mechanisms

In regard to food security monitoring and reporting, most local officials we spoke to demonstrated that they did not really understand the purpose or mechanisms for reporting and managing cases of food insecurity. Local officials did not give a uniform response when they were asked how authorities find out about incidences of food insecurity and malnutrition and who is responsible for handling food security incidence. However, most of them agreed that lines of reporting as well as responsibilities ideally should start from the lowest level of government, as it deals directly with people.

Table 7. Local Officials's View on the Reporting and Handling of Food Security Incidence

Role of Family and Relatives	Role of Lowest-Level Government as the Front Liner	Everyone (not only government) must take responsibility
"The role of the family was important because if a family experienced food insecurity, they would be very ashamed if others had to help them." (HS)	"If someone knows [about an instance of food insecurity], they should report it to the RT. The RT should then follow it up with the village/*kelurahan* and *kecamatan* authorities; they will also report it." (SM, female, *kecamatan* office staff, 50 years old, Bekasi) "Starting from the RT reporting to the RW, then on to the village head. Nothing can be done by the food insecurity office, the village head [should at least do something] because they are the ones who know about their communities." (RZ, female, food security office staff, 47 years old, Bekasi) "At the village level, the village head and government are the ones that should bear the most responsibility. Like it or not, [the village head] is like their father. At the *kabupaten* level, the *bupati* is responsible." (KA, male, village office staff, 40 years old, Cianjur) "Local governments at the RT, RW, village, *kecamatan*, and *kabupaten* levels are responsible for handling food insecurity when it occurs. [They should] coordinate with the relevant local-level government agencies that deal with regional-level organizations (OPD)." (EU, female, trade and industrial affairs office staff, around 50 years old, Cianjur)	"Everyone must take responsibility. If a family cannot eat, the government is responsible. The government must be responsible for people who are not able to eat." (MF, male, social affairs office staff, 50 years old, Bekasi) "Food security isn't a job for the government to do alone, [it] must cooperate and reciprocate with the community and the private sector, too. [Efforts to ensure food security] would be useless without these." (AL, female, food security office staff, 25 years old, Cianjur)

Furthermore, there are no clear procedures that regulate accountability and penalties for instances where local governments fail to respond to food insecurity incidence otherwise to ensure food security. The one that has taken place is awards for successes in safeguarding food security.

The *bupati* of Banjar has been awarded twice by the president for successfully increasing the yearly food production by over 5%. Awards were also given to officials at the lower levels of government who have spearheaded the effort to increase food production, such as providers of in-field technical advice on agriculture and members of farmers' groups associations (*gapoktan*).

A clearer mechanism was found in the fields of health, nutrition, and disaster management where the local governments already had a more systematic reporting and management mechanism. In reporting health and nutrition cases, the health agency involved midwives and *posyandu* cadres at the village level. They also assigned nutrition officers who periodically monitored the nutritional status of communities down to the village level. There were clear mechanisms for handling nutrition problems once they are identified, such as the provision of food through the Supplementary Feeding program (PMT) for a set recovery period or through hospital referrals in cases where nutrition problems were caused by co-occurring medical disorders. In Bekasi, *kabupaten* governments had already developed a single-window online data recording and reporting system for this.

Other than in the fields of health and nutrition, a more responsive reporting and management procedure was also found for food insecurity cases caused by disasters:

> In our region, emergencies resulting from flooding or other natural disasters are dealt with by the regional disaster management agency [BPBD], which reports directly to the *bupati*. The *bupati* will assign the related work unit to distribute necessary funding. (IS)

> As food insecurity has never occurred [in this region], I do not know who should be responsible for it. But, if food insecurity occurred [here] due to a disaster, the BPBD would handle it. (ND)

7.2.3 Poor Coordination and Lack of Institutional Capacity

Aside from the unclear mechanism, another problem in reporting and responding process is the poor coordination and excessively rigid bureaucracy that limit local officials in responding to community complaints. RT, a local official working for the food security agency, said, "As a government official, my hands are tied during food price increases because I do not have the authority to take measures to contain price fluctuations; my duties are only limited to monitoring prices."

Poor coordination at local level has resulted in the lack of information and knowledge sharing between local officials from different agencies, even though they are members of the same regional food security team. One of the consequences of the poor coordination is policy conflicts that sometimes occur between agencies. "The development of industrial buildings and housing keeps getting approved, even though the land for paddy fields is shrinking in size," said WZ (male, food security office staff, around 50 years old, Bekasi).

The problem of poor coordination was caused by, among other factors, a high degree of sectoral egotism, and imbalanced capacities and position between institutions being tasked with coordinating food security programs and other institutions that are members of the regional food security teams. Institutional capacity was again a problem in light of available resources and designated responsibilities. Of the three research locations, only Banjar had a food security agency at the *kabupaten*/*kota* level. In Bekasi, food security was still handled by the Food Security Subdivision, which is below the Agricultural, Fisheries, Forestry, and Food Security Extension Workers' Office (BP4KKP), under the Agricultural Agency. In Cianjur, the regional food security was handled by the Food Security Division, which was under the Regional Community Empowerment

and Food Security Agency (BPMKP). However, there were plans to establish a standalone Regional Food Security Agency in Cianjur in 2014.[33] "There is still a lack of human resources … Meanwhile, there are a lot of things we have to do. This is because the agency hasn't been set up yet and, as a result, personnel numbers are low," said AL.

Lack of program coordination also occurred among different levels of government. A *kecamatan* official revealed that she had not seen any coordination work between agencies at the *kabupaten* and *kecamatan* levels; neither was there any work relevant to food security issues that involved the *kecamatan* government. "Coordination between relevant government agencies at the *kabupaten* and *kecamatan* levels in relation to food security had not yet taken place," said SM.

7.3 The People's Perceptions

7.3.1 What Does Food Security/Insecurity Mean to You?

Accountability of public services will not be able to run well when there is no control from the people. People's knowledge on food security is very important in ensuring this. In this assessment, in addition to seeing the government's perspective, we also tried to explore people's perceptions about food security. At first, we used the official term "*ketahanan pangan*", but it just seems that people do not understand this term. Therefore, we chose to use the term that is easier and can be understood by the public such as "difficult to obtain food" or "could not afford to buy food" which are "*susah makan*" and "*tidak mampu membeli makanan*" in Indonesian.

As revealed during the assessment, people at the community level were not familiar with the term 'food security' and were unclear about who was responsible for food security. However, despite facing economic difficulties, household respondents felt that they were still food secure because they could still fulfill their household dietary needs without difficulty; they could still eat with their regular frequency or slightly smaller quantities (regardless of the quality of the food); they could still feed their children; they "had rice"—were still able to buy rice or maintain a supply of rice; they had an income; and they still had people willing to help them out.

> I don't know what food security is. (S)
>
> No matter how hard the situation is for the people here, none of them are unable to eat because many devout hajjis[34] frequently give *sodaqoh* [alms]. (AM)
>
> I've never heard of residents around here being unable to eat; they definitely have enough food to eat. If any of them have difficulty [getting enough food to eat], they would, of course, receive help. Family and neighbors must help each other out when there is someone facing difficulties, including difficulty buying food. (JA, 2013)
>
> [Not having enough food to eat?] It happened [to us] before … [It happened] just this year! Because [we] had no money. [We] asked family members and neighbors for help but didn't get any. For two days, [we] only ate [instant] noodles, until my husband received his pay. Four packets of noodles a day for the whole family. [We] often have difficulty getting enough food to eat … since my husband stopped working. It [makes me] feel sad … thinking of the children … children who need food to eat. [They] don't know the hardship faced by their parents; they never stop asking for food. (R, female, homemaker, 41 years old, Bekasi, 2013)

[33]At the time of the writing of this report, the agency had already been established.

[34]*Hajji* is an Arabic term of respect for someone who has made the pilgrimage to Mecca.

> It hasn't yet reached the stage where [we] cannot eat because [we] have always had rice … For Cianjur people, having enough food to eat is when you plant rice and the field produces enough rice for eating for one season [until the start of the next harvest season] … If you have enough rice, it's fine. You just need to find food to go with the rice [the side dish]. [The difficult thing is] when people, like me, don't have a rice field, meaning they have to buy rice. And they have to make money to buy rice. (DE)

In addition, we also tried to explore people's perceptions of their rights in obtaining food. And it seems that people do not really know and had never even heard the term "the right to food" or "*hak atas pangan*" in Indonesian. It is quite reasonable considering that the three study areas have never experienced severe food security issues such as famine. Different responses may be obtained if the question of the right to food were asked to the people living in other areas with severe food security problems, such as East Nusa Tenggara. As for when we asked about "the right to food", the respondents we spoke to did not really understand the meaning of it. They simply thought that all people have the right to eat properly. "[I've] never heard of the term "the right to food", but I think I agree with the understanding of "the right to food" [as explained by the research team]" (SY).

7.3.2 Who is Responsible for Responding to Hunger?

Regarding accountability for food security, some of the people thought that the government should have a greater role in helping the community overcome problems. They believed that the government was "too distant". Thus, community members more often accessed informal social security resources through their families, neighbors, community figures, *arisan*, and community associations (*paguyuban*). In some cases, they felt that no one can help, so they have to rely on their own.

Table 8. Some Responses to Questions on Who Is Responsible in Helping Them or Other People when Facing Difficulties to Buy Food

No One Can Help	Family and Neighbors	The Government
"Borrowing [money] from whom? Other people [neighbors] also face the same difficulties." (DE) "If I can't get food to eat, I just keep it to myself. I'd be embarrassed if I had to tell my neighbors. Word would spread around, I would be very embarrassed. If anyone else doesn't have enough food to eat, they should report it to the RT head." (C, male, farm laborer, 46 years old, Cianjur) "I do not know who is in fact responsible when people have difficulty getting enough food to eat. I just think that each family must be responsible for providing their own food." (S)	"Family members and neighbors alike should help each other out when someone is experiencing difficulties." (R) "[If anyone of us finds it difficult to get enough food to eat,] Neighbors should help out, or family… ." (M, female, homemaker, 43 years old, Cianjur, 2013) "Family members and neighbors are the ones who must be responsible and help out when people experience hunger because there is no help from the government. The government rarely goes down to the grassroots level. The government should get down here. If people run out of food [and] their neighbors know, they should be able to report it to the RT head, who will pass on the news to the village secretary, who will report it on to the village head for further reporting up the chain. (MO, female, homemaker, 57 years old, Banjar) [When I faced difficulty getting enough food to eat,] [I] have never reported it to the RT head because I was too embarrassed. [I] usually just sleep, *tawakkal* [surrender oneself to God], and pray a lot. Someone usually then provides help. (N, 2013)	"If someone has difficulty getting enough food to eat, that should be the government's responsibility. That could be the RT, village head, *camat*, or *bupati*." (SY, female, cleaner, 56 years old, Banjar, 2013) "The government should be able to provide even more programs and funds so that no poor people face difficulties. I wish [there was more support from the government] … There should be more Raskin rice." (R) "The government should of course play a role. But I don't understand the related programs." (YX, female, *warung* owner, 33 years old, Banjar, 2012) "The assistance provided by the government is inadequate. There should be more assistance [from the government]; money would be good [it doesn't have to be rice because government rice is of poorer quality)." (M, female, homemaker, 43 years old, Cianjur, 2013)

VIII. CONCLUSION AND POLICY RECOMMENDATIONS

The food price trends are constantly showing a more volatile movement compared to those of other commodities' prices. With a composition that takes up most of the household income, volatility of the food price can threaten the well-being of the household, especially for the poor and the vulnerable whose incomes are uncertain. There are many factors behind the volatility of the national food price, including the demand and supply mechanism in the domestic market that is influenced by international prices and other factors affecting the cost of production. Among the production factors, fuel is very important since its price determines the cost of production, as well as the distribution of commodities. From the research, we found that what people understand about the main factor behind the hiking prices in recent years is the speculation around fuel price. In addition to natural and seasonal factors, such as harvests and annual holiday festives, the increasing fuel price is perceived as the main factor behind the ups and downs of the prices of basic necessities, including food price, during the period from 2011 to 2013. In 2012, the government announced its plan to cut the fuel subsidy. Even though the cuts did not eventuate at that time, the announcement had caused the prices of daily necessities to increase, which further reduced people's purchasing power. In 2013, the government had finally cut the fuel subsidy just before the Ramadan fasting month, creating the double impact of the hiking fuel price and hiking prices of daily necessities, which lasted until several months later.

When food price is volatile and income is uncertain, one of the ways the people cope with is by adjusting food expenses which take up the largest portion of households' total expenditure. From the research, we learned that people are economizing on food expenses by reducing food consumption in terms of amount and/or variety; eating cheaper food, which usually lowers the quality of the food; eating more instant food; growing food using the surrounding land; and gathering food from the surrounds. In addition, they buy food from local food stalls on credit, work harder, borrow money from others (mostly relatives), and reduce social activities. At the household level, all of the adjustments rely so much on the unpaid care work performed by household members who are mostly women. Therefore, price volatility and income uncertainty could mean more time and energy that women should spend to transform difficulties into well-being and to support the economic work of the other household members. However, the role of unpaid care work has never been recognized by policymakers, as well as the people. Women themselves—who perform a great amount of the work—still perceive unpaid care work as their obligation, which is often taken for granted.

Economic difficulties potentially create pressure not only within the household but also on social relations among community members, especially when social activities are felt as burdensome. For the people, relatives and neighbors have been their important sources of support when they are facing difficulties. Therefore, they also see social activities in the community—with relatives and neighbors—as something important to be maintained and, most of the time, these activities become important informal arrangements for providing support. However, the activities mostly require some amount of money to be paid; they include *arisan*, *pengajian*, and celebrations, which are not affordable for everybody—especially the poor. There are some people who do not have money at all and finally do not join the activities. This, however, makes them feel ashamed.

Hiking food price does not necessarily benefit the lives of the farmers. On the contrary, food price volatility will increase their burden due to the uncertainty and higher living cost; most of them are landless farmers who are also the net consumers of the food commodity. In addition to the rapid

land conversion, infrastructure damage, unfair supply chain system, and the lack of agricultural education in development that makes the sector's added value very low, the uncertain agricultural commodity prices further lower the interest of the younger people to take jobs in the agricultural sector. For most of the young people we spoke to, future employment is more oriented toward sectors outside the agricultural sector and should be located in nonrural areas. Their desire is to work in a modern office in a big city. However, due to a lack of education and experience, they end up doing informal jobs or a formal but temporary-contract job. In the long term, the low regeneration in the agricultural sector will further potentially impact the agricultural production, which is the source of our food.

Food price volatility has often been seen as a macro event whose impacts are usually assessed through macroeconomic indicators, which often make its micro-level impacts on people's day-to-day lives escape the attention of decision-makers. Small changes that occur at the micro level—individual level and in the household—may seem trivial and slow, but they actually have significant impacts on people's welfare. The social costs of the price volatility are borne largely by the people, that is, through the noneconomic work they have to do and the support—mainly from relatives and neighbors—that they use. However, if micro-level impacts continue to be unrecognized, they will somehow threaten the national economy and productivity.

Some efforts are made by the government to directly or indirectly address the impact of rising prices and to increase food security at the wider level. However, various obstacles are encountered during the implementation of the programs with regard to data collection (data not up-to-date and mistargeting), the quality of assistance, the programs' limited coverage, and the unsustainable nature of the programs. Furthermore, the programs, which have been designed very well by the government, often run ineffectively and inefficiently due to the limited capacity of the implementers (in terms of capacity and quantity), poor coordination between institutions, and lack of program monitoring and evaluation mechanism. The various limitations in the implementation of the government programs have made the people prefer relying more on support from informal sources. In coping with everyday difficulties, the people benefit from support coming from their surroundings, such as family and relatives, neighbors, and local *warung* near the house. Even though they share the same economic difficulties, relatives and neighbors are still the main source of support that can relatively be accessed at every time in need.

Some important lessons that can be drawn from this research include the lesson that the various adjustment efforts made and support received by the people have made the impacts of the price volatility look small and slow, but it may threaten their well-being in the long term. While it continues to escape the attention of policymakers, the people have been the ones who bear the social costs of the uncertainty. Furthermore, at the household level, a greater burden will be borne by household members—usually women—who provide unpaid care work for the rest of the household members. However, this type of work is still unrecognized; thus it will potentially be detrimental to the well-being of the care providers, as well as the care receivers, due to limited support to provide quality care. The government has many programs that can be used to overcome all these problems, but it takes some effort to improve the effectiveness of the existing programs. When we spoke to the people about these programs, it simply appeared that their knowledge about the programs was very limited. Lack of information dissemination of the programs had also made them unaware as to whom they should report to when experiencing difficulties. On the other hand, government frontline officials at the local level also have limited knowledge. Understanding about programs/the policy system also varies between officials and agencies. The discussed problems imply the need for improvements and hence immediate actions as well as long-term efforts from the government and other stakeholders. The following are some of these actions, along with some points to consider:

a) With regard to the volatility sparked by increasing fuel price, we learn that we need a more integrated and responsive price monitoring and management system. When we talk about a more integrated system, it means a system that covers commodities from different sectors. Since prices are moving very quickly, we also require a more responsive price monitoring system that can provide timely data and information for the government to take immediate actions to manage the price.

b) To support the system, there needs to be an improvement in the existing data, both in terms of quality and data coverage. The database collection system should be more integrated, covering more sectors and lower-level areas—in other words, more micro—so that it can better describe the real condition.

c) In developing policies and programs, the government has to recognize unpaid care work—a type of work that significantly contributes to safeguarding the welfare of the household in times of economic difficulties. Until now, unpaid care work is still perceived as a household domestic affair that does not require any government intervention. A clearer recognition of unpaid care work is expected to attract support in the form of infrastructure and programs that can reduce the drudgery of the work so that it can increase the well-being of the care providers as well as the quality of care provided to the care receivers.

d) Besides the expansion and improvement of program coverage and quality, institutional reform, which includes the empowerment of government frontline officials and various cadres at the local level, is also important to carry out in order to create an enabling environment supporting the implementation of programs, in particular, the implemention of food security-related programs. Without the proper knowledge and skills to deal directly with the people, these officials—in many cases—can only identify problems without being able to do much to overcome them. In the end, the lack of formal support from the government leaves the people with no choice but to rely on informal support from their family, neighbors, community leaders, and even informal financial institutions, such as loan sharks.

e) To support this, there needs to be a monitoring and evaluation system that is transparent and involves other parties outside the government, such as civil society. In addition, the government can also build a public complaint handling system that has a clear mechanism and is easy to use so that information can be collected more quickly and transparently.

LIST OF REFERENCES

Asian Development Bank (2012) 'Food Security and Poverty in Asia and the Pacific: Key Challenges and Policy Issues.' Mandaluyong City, Philippines: Asian Development Bank.

Agus, Fahmuddin and Irawan (2006) 'Agricultural Land Conversion as a Threat to Food Security and Environmental Quality.' *Jurnal Litbang Pertanian* 25 (3): 90–98.

Azadi, Hossein, Peter Ho, and L. Hasfiati (2010) 'Agricultural Land Conversation Drivers: A Comparison between Less Developed, Developing, and Developed Countries.' *Land Degradation and Development Journal.* Hoboken, New Jersey: John Wiley & Sons, Inc.

Badan Ketahanan Pangan (2013a) 'Laporan Akuntabilitas Kinerja Instansi Pemerintah (LAKIP) Badan Ketahanan Pangan 2013' [The Food Security Agency's 2013 Government Institution's Performance Accountability Report]. Jakarta: Badan Ketahanan Pangan.

———. (2013b) 'Petunjuk Pelaksanaan Sistem Kewaspadaan Pangan dan Gizi' [Technical Guideline for Food and Nutrition Surveillance System]. Jakarta: Badan Ketahanan Pangan.

———. (2012) 'Rencana Kinerja Tahunan Badan Ketahanan Pangan 2013' [The Food Security Agency's 2013 Annual Performance Plan]. Jakarta: Badan Ketahanan Pangan.

Badan Perencanaan Pembangunan Nasional (2011) 'Rencana Aksi Nasional Pangan dan Gizi' [National Action Plan for Food and Nutrition]. Jakarta: Bappenas.

Baffes, John and Allen Dennis (2013) 'Long-Term Drivers of Food Price.' *Policy Research Working Paper No. 6455.* Washington, D. C.: The World Bank.

Bank Indonesia (2015) *Indeks Harga Konsumen Gabungan* [Composite Consumer Price Index] [online] <http://www.bi.go.id/id/statistik/seki/terkini/riil/Contents/Default.aspx> [17 December 2015].

Barichello, Richard and Arianto Patunru (2009) 'Agriculture in Indonesia: Lagging Performance and Difficult Choices.' *Choices: The Magazine of Food, Farm, and Resource Issues.* Washington, D. C.: Agricultural and Applied Economics Association.

BRIDGE (2014) 'Gender and Food Security: Towards Gender-Just Food and Nutrition Security.' Brighton: Institute of Development Studies.

Brown, Donald, Rabecca Rance Chanakira, Kudzai Chatiza, Mutuso Dhliwayo, David Dodman, Medicine Masiiwa, Davison Muchadenyika, Prisca Mugabe, and Sherpard Zvigadza (2012) 'Climate Change Impacts, Vulnerability, and Adaptation in Zimbabwe.' *International Institute for Environment and Development (IIED) Climate Change Working Paper No. 3.* London: International Institute for Environment and Development.

Carmona, Magdalena Sepúlveda (2013) 'United Nations Rapporteur Report on Extreme Poverty and Human Rights.' Geneva: The United Nations.

Cervantes-Godoy, Dalila and Joe Dewbre (2010) 'Economic Importance of Agriculture for Sustainable Development and Poverty Reduction: Findings from a Case Study of Indonesia.' Paper presented in Global Forum on Agriculture on 29–30 November 2010. Paris: The Organisation for Economic Co-operation and Development/OECD.

Crosby, Liam, Katie Norman, and David McNair (2012) 'A High Price to Pay: The Impact of Rising and Volatile Food Prices on Children's Nutrition and Food Security.' London: Save the Children.

Davis, Junior (2001) 'Conceptual Issues in Analyzing the Rural Nonfarm Economy in Transition Economies.' Natural Resources Institute Report No. 2635. Kent: Natural Resources Institute.

Deaton, Angus (1989) 'Price Elasticities from Survey Data: Extensions and Indonesian Results.' *Journal of Econometrics* 44 (1990): 281–309.

Dewan Ketahanan Pangan, Departemen Pertanian, and World Food Programme (2009) 'Peta Ketahanan dan Kerentanan Pangan Indonesia 2009/A Food Security and Vulnerability Atlas of Indonesia 2009.' Bilingual publication. Jakarta: Dewan Ketahanan Pangan, Departemen Pertanian, and World Food Programme.

PEACE (2007) 'Indonesia and Climate Change: Current Status and Policies.' Jakarta: PEACE.

de Wit, Geertje (2011) 'More Food = Less Hunger: The Influence of A Self-Sufficiency Policy on Food Security.' BSC Thesis. Wageningen: Development Economics Group, Wageningen University.

Dodge, Eric, and Sinafikeh Gemessa (2012) *Food Security and Rice Price Stabilization in Indonesia: Analysis of Policy Responses.* Dodge, Eric, and Sinafikeh Gemessa (2012) 'Food Security and Rice Price Stabilization in Indonesia: Analysis of Policy Responses.' Cambridge: John F. Kennedy School of Government, Harvard University.

Eakin, Hallie (2005) 'Institutional Change, Climate Risk, and Rural Vulnerability: Cases from Central Mexico.' *World Development* 33 (11): 1923–1938.

Economist Intelligence Unit (2012) 'Overview of Indonesia's Performance in the Global Food Security Index.' Country Summary Report: Indonesia. London: EIU.

Encyclopaedia Britannica, Inc. (2015) *Encyclopaedia Britannica* [online] <http://www.britannica .com/technology/domestic-system> [3 December 2015].

Food and Agriculture Organization (2014) 'Plan of Action: Resilient Livelihood for Agriculture, and Food and Nutrition Security in Areas of Jordan Affected by the Syria Crisis.' Amman, Jordan: FAO Regional Office for the Near East and North Africa and FAO Representation in Jordan.

Food and Agriculture Organization, International Fund for Agricultural Development, and World Food Programme (2011) *The State of Food Insecurity in the World: How Does International Price Volatility Affect Domestic Economies and Food Security?* Rome: The Food and Agriculture Organization.

Frankenberger, Tim, Mark Langworthy, Tom Spangier, and Suzanne Nelson (2012) 'Enhancing Resilience to Food Security Shocks.' White paper (draft). Tucson: TANGO International.

Hossain, Naomi, Richard King, and Alexandra Kelbert (2013) 'Squeezed: Life in a Time of Food Price Volatility, Year 1 Results.' Oxford: Oxfam GB.

Hossain, Naomi (2013) 'Local Accountability for Food Security or Who Answers to the Hungry?' Note on Special Topic Ideas for Year 2, Brighton, United Kingdom, 24 September 2013, unpublished.

Isdijoso, Widjajanti, Armand Arief Sim, Deswanto Marbun, Hariyanti Sadaly, Hastuti, Robert Justin Sodo, Rachma Indah Nurbani, Rahmitha, Umbu Reku Raya, Vita Febriany, Yudi Fajar M. Wahyu (2013) 'Child Poverty and Disparities in Indonesia: Challenges for Inclusive Growth.' Child Poverty and Disparities in indonesia: Challenges for Inclusive Growth.' Jakarta: The SMERU Research Institute, Badan Perencanaan Pembangunan Nasional, United Nations Children's Fund.

Islam, Nurul (1997) 'Nonfarm Sector and Rural Development: Review of Issues and Evidence.' *2020 Brief No 47.* Washington, D. C.: International Food Policy Research Institute.

Khanam, Taznoore S., Humnath Bhandari, and Samarendu Mohanty (2015) 'Rice Price Inflation and Its Impact on poverty and Livelihood: Insight from Bangladesh.' *Journal of Food, Agriculture, and Environment* 13 (2): 107–117.

Kementerian Pertanian (2014) 'Pedoman Sistem Kewaspadaan Pangan dan Gizi' [Food and Nutrition Surveillance System Guideline]. Jakarta: Kementerian Pertanian.

Margono, Tri and Shigeo Sugimoto (2011) 'The Barriers of the Indonesian Extension Workers in Disseminate Agricultural Information to Farmers.' *International Journal of Basic and Applied Sciences IJBAS-IJENS* 11 (2): 80–86.

Measey, Mariah (2010) 'Indonesia: Vulnerable Country in the Face of Climate Change.' *Global Majority E-Journal* Vol. 1 (June): 31–45.

Nurhemi, Shinta R. I. Soekro, and Guruh Suryani R. (2014) 'Pemetaan Ketahanan Pangan di Indonesia: Pendekatan TFP dan Indeks Ketahanan Pangan' [Food Security Mapping in Indonesia: The TFP Approach and Food Security Index]. Working Paper No. 4/2014. Jakarta: Bank Indonesia.

Park, Juyeon, Jung-Sug Lee, Young Ai Jang, Hae Rang Chung, and Jeong Seon Kim (2011) 'A Comparison of Food and Nutrient Intake between Instant Noodle Consumers and Noninstant Noodle Consumers in Korean Adults.' *Nutrition Research and Practice* 5 (5): 443.

Prastowo, Nugroho Joko, Tri Yanuarti, and Yoni Depari (2008) 'Pengaruh Distribusi dalam Pembentukan Harga Komoditas dan Implikasinya terhadap Inflasi' [The Effect of Distribution on Commodity Pricing and Its Implications for Inflation]. Working Paper, WP/07/2008. Jakarta: Bank Indonesia.

Rada, Nicholas and Anita Regmi (2010) 'Trade and Food Security Implications from the Indonesian Agricultural Experience.' Washington, D. C.: The Economic Research Service, United States Department of Agriculture.

Raihan, Selim (2009) 'Impact of Food Price Rice on School Enrollment and Dropout in the Poor and Vulnerable Households in Selected Areas of Bangladesh.' *South Asian Network on Economic Modeling (SANEM)*. Dhaka: Department of Economics, University of Dhaka.

Reardon, Thomas and C. Peter Timmer (2005) 'Transformation of Markets for Agricultural Output in Developing Countries since 1950: How Has Thinking Changed?' Chapter 13 in R. E. Evenson, P. Pingali, and T. P. Schultz (eds.) *Handbook of Agricultural Economics,* Vol. 3: *Agricultural Development: Farmers, Farm Production, and Farm Markets.* Amsterdam: Elsevier.

Reddy, D. Narasimha, A. Amarender Reddy, N. Nagaraj, and Cynthia Bantilan (2014) 'Rural Nonfarm Employment and Rural Transformation in India.' Working Paper Series No. 57. Patancheru: International Crops Research Institute for the Semi-Arid Tropics.

Rosegrant, Mark W., Mandy Ewing, Gary Yohe, Ian Burton, Saleemul Huq, and Rowena Valmonte-Santos (2008) 'Climate Change and Agriculture: Threats and Opportunities.' Eschborn: Deutsche Gesellschaft fur Technische Zusammenarbeit.

Siregar, Hermanto, Siti Jahroh, Dicky Firmansyah, Indra, and Tantan Hermansah (2012) 'Study on Supportive Policies for Maximizing Agricultural Investment in Indonesia.' In 'The Role of Policies in Agricultural Transformation: Lessons from Brazil, Indonesia, and the Republic of Korea.' Upali Wickramasinghe, Saifullah Syed, and Hermanto Siregar (eds.) CAPSA Working Paper No. 106. Bogor: CAPSA-ESCAP.

SEWA (2009) 'Impact of Price Rise on Poor Households.' Ahmedabad: SEWA.

Sujai, Mahpud (2011) 'Fiscal Policy Impacts in Stabilizing Agricultural Commodities Prices.' *Analisis Kebijakan Pertanian* 9 (4): 297–312.

Soviana, Sovi and Jofi Puspa (2012) 'Multi-layer Distribution System of Indonesian Fruit-Vegetable Sector: Current Challenges and Future Perspectives.' Paper presented in the Conference on International Research on Food Security, Natural Resource Management, and Rural Development, Germany, 19–21 September 2012.

Suroso, Arif I., Muhammad Firdaus, and Dewi Savitri (2014) 'Demand for the Main Vegetables in Java Island.' *ISSAAS* 20 (2): 98–109.

te Lintelo, Dolf J. H., Lawrence J. Haddad, Rajith Lakshman, and Karine Gatellier (2013) 'The Hunger and Nutrition Commitment Index (HANCI 2012): Measuring the Political Commitment to Reduce Hunger and Undernutrition in Developing Countries.' Evidence Report No. 25. Brighton: Institute of Development Studies.

The Ministry of Health of the Government of Indonesia, the National Development Planning Agency, United Nations Children's Fund, and World Health Organization (2010) 'The Landscape Analysis Indonesian Country Assessment.' Department of Nutrition for Health and Development of the World Health Organization.

The World Bank (2012a) 'Food Prices, Nutrition, and the Millennium Development Goals.' Global Monitoring Report 2012. Washington, D.C.: The World Bank.

———. (2012b) 'Protecting Poor and Vulnerable Households in Indonesia.' Washington, D.C.: The World Bank.

———. (2011) 'Responding to Global Food Price Volatility and Its Impact on Food Security.' An attached document for the Development Committee (Joint Ministerial Committee of the Boards of Governors of the Bank and the Fund on the Transfer of Real Resources to Developing Countries) Meeting, The World Bank and The International Monetary Fund, Washington, D.C., 16 April 2011.

Thwaites, Rik, Allan Curtis, Nicki Mazur, and Digby Race (2008) 'Understanding Rural Landholder Responses to Climate Change.' Albury-Wodonga: Institute for Land, Water and Society, Charles Sturt University.

Timmer, C. Peter (2004) 'Food Security in Indonesia: Current Challenges and the Long-Run Outlook.' Working Paper No. 48. Washington, D.C.: Center for Global Development.

Winoto, Joyo and Hermanto Siregar (2008) 'Agricultural Development in Indonesia: Current Problems, Issues, and Policies.' *Analisis Kebijakan Pertanian* 6 (1): 11–36.

Wiggins, Steve, Sharada Keats, and Julia Compton (2010) 'What Caused the Food Price Spike of 2007/08? Lessons for World Cereals Markets.' London: Overseas Development Institute and UK Aid.

Government Laws and Regulations

Undang-Undang No. 18 Tahun 2012 tentang Pangan [Law No.18/2012 on Food].

Undang-Undang No. 2 Tahun 2004 tentang Perselisihan Hubungan Industrial [Law No. 2/2004 on Industrial Relations Disputes].

Undang-Undang No. 13 Tahun 2003 tentang Ketenagakerjaan [Law No.13/2003 on Labor].

Peraturan Presiden No. 83 Tahun 2006 tentang Dewan Ketahanan Pangan [Presidential Regulation No. 83/2006 on Food Security Council].

Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2010–2014 [National Medium-Term Development Plan 2010–2014].

APPENDICES

APPENDIX 1

METHODOLOGY

Selection of Research Locations

This study was designed as a small but profound longitudinal qualitative research, which uses a series of qualified approaches to providing rich information. The research locations represent different local characteristics and community livelihoods. Knowledge about the locations and the people living in them becomes an important component of consideration in the selection of research locations. The in-depth information on the locations can help the research team to build rapport with the community. Therefore, it is highly desirable that the research team already have the basic information about the research locations. Based on this, the selected research locations were once the locations of SMERU's previous research studies in the past. That way, information about the research locations and community livelihoods is readily available to the research team and can enrich the longitudinal information to be explored over the four years of the study.

For this study, we took a sample of communities in three villages located in three different *kabupaten*. Table A1 briefly summarizes each of the research locations.

Table A1. Overview of the Research Locations

Aspect	Research Location		
	Bekasi	Cianjur	Banjar
Livelihood characteristics	A semi-urban village whose society relies on large industries for their livelihoods; the industries are situated in the vicinity of the research location and with the influx of migrants working in the industries, small businesses emerged to cater for their needs	A village with strong rural characteristics located not far away from the center of the local economy; most of its people rely their livelihoods on agriculture	A village located in the middle of plantation and coal mining areas; its people rely on small rubber plantations and businesses that support the the mining business
Main types of occupation	Factory workers, other private company workers, (small to big) business owners, landlords (owners of rental properties), drivers (of *ojek*, *becak*, and other local means of transportation), civil servants, various types of casual workers (on-call domestic workers, massage therapists, etc.)	Farmers (farm laborers, sharecroppers, landlord farmers), landlords, intermediary traders, (small to big) business owners, migrants, drivers (of *ojek*, *becak*, and other local means of transportation), construction workers, civil servants, various types of casual workers (on-call domestic workers, etc.)	Land owners of rubber plantations (mostly smallholders), rubber farmers (rubber tappers, sharecroppers, landlord farmers), rubber traders, intermediary traders, coal mining workers, construction workers, (small to big) business owners, civil servants, various types of casual workers
Proportion of welfare groups in 2012 (based on village elite's FGDs)	Upper-middle to high income level (*menengah-atas*) - 17% Middle income level (*menengah*) - 36% Low to lower-middle income level (*menengah-bawah*) - 47%	Rich (*kaya*) - 9% Middle (*sedang*) - 20% Poor (*miskin*) - 37% Very poor (*sangat miskin*) - 34%	Rich (*kaya*) - 9% Middle (*sedang*) - 60% Poor (*miskin*) - 31%

The research location selection was conducted through a consultation process with the leader of the 'Life in A Time of Food Price Volatility' global study team of IDS, University of Sussex, and Oxfam in United Kingdom. Thus, the diversity and comparability of locations in ten different countries are already under consideration in the location selection process.

Data Collection Method and Sampling Procedure

The research aims to provide a strong explanation of why and how high and unpredictable prices of food and other basic needs affect the way poor and vulnerable people live. For this purpose, we conducted a number of household case studies which were followed up over the four-year duration of the study. In addition to data collected from the household case studies, data was also derived from in-depth interviews with key informants coming from different levels of society, ranging from officials at the *kabupaten* level and the levels below that, to people at the community level who are considered knowledgeable and relevant to this study. A series of focus group discussions involving the village elite's, women's, men's, and youths' groups were also undertaken to provide a more comprehensive picture of the community's livelihoods as well as to confirm information from the household case studies.

Summary of the data collection methods used is as follows.

Both year-1 and year-2 community case studies of the same people and communities include around 5–7 interviews with key informants, 10–11 household case studies, 4 FGDs, and a set of additional interviews with respondents relevant to the special topic of each year.[35]

Furthermore, some specific research tools and instruments were also used to support the participatory and visual approach to research probing, including:

a) matrix ranking and scoring,
b) well-being ranking,
c) institutional analysis,
d) consumption and food basket exercises,
e) time use schedules,
f) cause and effects diagrams, and
g) participatory photography.

Triangulation of findings was carried out by looking at the results of various data collection activities, results of direct observation activities conducted by the research team, and secondary data collected from official sources.

Selection of case study households

The households whose lives we followed over the four-year duration of the study were those that belonged to the poor group and were considered the most vulnerable to changes that impact livelihood and income, as well as changes that influence minimum living costs. The criteria for “poor” and “vulnerable” were set by referring to local indicators probed through focus group discussions involving various community groups during the first year of the study, as summarized in Table A2 and Table A3.

[35]Topic of special focus of year 1 is “Future Farmers: Young People’s Aspiration in a Time of Food Price Volatility”; while the special focus of year 2 is on “Local Accountability for Hunger.”

Table A2. Local Welfare Indicators

		Bekasi	Cianjur	Banjar
Aspects that differentiate each welfare group		House Ownership of rental property (*kontrakan*) Asset ownership Vehicle/means of transportation Health/access to health facility Food consumption Education Occupation and income Number of wives Number of children	House Farmland Vehicle/means of transportation Education Health/access to health facility Food consumption Occupation	House Rubber plantation ownership Vehicle/means of transportation Education Health/access to health facility Food consumption Occupation Participation in social activities Number of wives
Some principal characteristics of the poor used in the household case studies selection	House	Poor condition Floor tiles are detached Roof tiles are leaking Status: renting	The wall made of woven bamboo Some have a house with walls made from bricks (especially those having household members working as migrant workers) Some are not fully furnished, some are furnished (especially those having household members working as migrant workers) Live at a rented house Live at parents' house	Live at a rented house (in no possession of permanent housing) Some of them stay at a shack
	Occupation and income	Unemployed, *ojek* and *becak* drivers, casual workers Low and uncertain income	Farm laborers, *ojek* drivers, construction workers, casual workers (on-call domestic workers), scavengers, ex-migrant workers who are running out of their savings	Rubber sappers, coal mine workers, construction workers, *ojek* drivers
	Asset ownership (including rental property, farmland)	Does not own any rental property and in fact rents accommodation Some people owning land (a house) less than 100 m²	Does not own any farmland Some has small farmland inherited from parent	Does not own any rubber farm, only works as rubber sappers
	Vehicle	Does not own a vehicle	Does not own a vehicle Has a motorcycle (bought in installments) used as *ojek* (motorcycle taxi)	Has a motorcycle (bought in installments) and bicycle

			Borrow a motorcycle for *ojek* service	
	Health	When sick, visit the *puskesmas* using SKTM (letter evidencing poverty for the poor) from the village administration	Access healthcare service using Jamkesda (Regional Health Insurance Program) card and SKTM	Use SKTM (hospital fee may be reduced 1/3 from total fee) Use Community Health Insurance (Jamkesmas) card, but not every underpriviledged member of the community can get it
	Education	Level of education up to junior high school or only elementary school (for the children) In some cases, did not attend school (for the parents)	Children can now go to junior high school, which is free for the state school (especially due to the School Operational Assistance (BOS) program Parents' level of education is only up to elementary school, or even not finishing elementary school	Junior high school
	Food consumption	Have simpler diet than the middle class	Simple or very simple meals, sometimes less than sufficient Soya beancurd and tempeh (as main source of protein) Have meat occasionally—once a year from *qurban* (sacrificial lamb during the Eid al-Adha holiday)	Consume subsidized rice (Rp5,000 [US$0.5]/liter) Only consume meat when there is celebration, such as weddings

Another thing taken into consideration in the selection of case study households was whether the households fall into the vulnerable category, identified through discussions and consultations with the community and key informants.

Table A3. The Most Vulnerable Groups by Location

Bekasi	Cianjur	Banjar
Poor people	Poor people	Poor people
Contract workers	Very poor people	Middle income people
Warung owners		

Note: These are groups of people considered as the most vulnerable to any changes that impact livelihoods and prices of basic needs—in particular food and daily essentials. The information is compiled from village elite's FGDs in three research locations during the first-year field visit.

Key informants

The selection of key informants was conducted through a snowballing process. Village leaders were selected as key informants since these figures are definitely present in every research location. Knowledge of local characteristics belonging to and developments taking place in the community is part of the information that is expected to be extracted from these leaders. Health and education cadres, and social protection program managers, as well as local activists became sources of information, especially to give illustration about specific issues that exist in each study location. To give a clearer picture of livelihood dynamics, this research also involved local entrepreneurs as key informants.

Community group

Similar principles used in selecting case study households were applied when selecting participants of households' and youths' FGDs.

Similar principles used in selecting key informants were applied when selecting participants of village elite's FGDs.

Data Management

Recording and transcribing

Each research activity was recorded (in the form of voice records) and transcribed (in the form of fieldnotes) by the researcher who served as a notetaker at the time of the data collection/research activity. The transcribing process was conducted after the activity based on the researcher's notes made and recordings taken during the activity. A fieldnote contains records of information and data obtained during interviews and discussions, following semi-structured questions and enriched with direct quotes.

All fieldnotes were translated into English, so they can also be read and used by the global study team.

Data storing

In each fieldnote, there is a metadata that contains basic information about the research participant. In addition to supporting data storage management, the metadata can also be used to support research analysis, especially in making comparisons between regions and between people's characteristics.

Each file of the fieldnotes and other research outputs (photos, recordings) is given a name indicating the type of activity (interview, FGD, participatory photography), information about research participants, time and date, and location; and stored in soft copy.

Building Rapport

The three research locations have been the locations of SMERU's previous research studies and some of the community leaders involved are already familiar with SMERU. Nevertheless, in conducting research that involved the community, the research team conducted phased visits

starting from the village apparatus and local community leaders. This was carried out to obtain permission and support in conducting research. In the early stages, the research team requested assistance from locally appointed persons as counselors to assist the research team to introduce the team, explain the purpose of the research, and ask for the people's permission and willingness to become participants. Before each research activity began, the researcher asked for the permission and willingness of the resource persons verbally to ensure the comfort of the resource persons.

APPENDIX 2

List of Case-Study Households and Changes in Their Livelihood

Table A4. Case Study in Bekasi

	Changes in Work in the Past Year	
	Current Occupation(s)	Previous Year's Occupation(s)
HH01	- Food seller	- Food seller
	- Industrial laborer (electronic company)	- Industrial laborer (tissue producer company)
	- Security guard	- Unemployed
HH02	- Unemployed	- Technical field worker
	- Cook and on-call massage therapist	- Door-to-door laundy worker
	- Laundry worker	- Laundry worker
HH03	- Construction laborer	- Construction laborer
	- Expedition worker	- Expedition worker
HH04	- Home electronic appliance selling, service, and maintenance	- Home electronic apliance selling, service, and maintenance
	- Running family's *warung* and laundry business	- Running family's *warung*
HH05	- Running a food stall	- Unemployed
	- Manufacture laborer	- Manufacture laborer
	- Manufacture laborer	- Manufacture laborer
	- Unemployed	- Unemployed
HH06	- Domestic worker & nanny; and running a *warung*	- Domestic worker & nanny
HH07	- Household worker	- Domestic worker
HH08	- Farmer and bottle strap assembler[a]	- Farmer
HH09	- Cleaning service	- Cleaning service
	- Teaching Koran classes & selling snacks and clothes	- Teaching Koran classes & selling snacks and clothes
HH10	- Construction worker	- Unemployed
	- Manufacture worker	- Manufacture worker

Note: HH = household.

[a]The respondent worked under a putting-out system. Putting-out system is a production system in which merchant-employers "put out" materials to rural producer (in our case people in the surrounding area) who usually work in their homes, but sometimes labor in workshops or in turn put out work to others. Finished products are returned to the employers for payment on a piecework or wage basis. It is also called domestic system (Encyclopaedia Britannica, Inc., 2015).

Table A5. Case Study in Cianjur

	Changes in Work in the Past Year	
	Current Occupation(s)	Previous Year's Occupation(s)
HH01	- Gleaners of excess grains in paddy fields	- Gleaners of excess grains in paddy fields
	- Unemployed	- Unemployed
HH02	- Farm laborer, garden keeper, shepherd	- Farm laborer, garden keeper, shepherd
	- Gleaners of excess grains in paddy fields	- Gleaners of excess grains in paddy fields
HH03	- Tailor	- Tailor
	- Gleaners of excess grains in paddy fields, farm laborer	- Gleaners of excess grains in paddy fields, farm laborer
	- Gleaners of excess grains in paddy fields, farm laborer, casual worker	- Gleaners of excess grains in paddy fields, farm laborer, casual worker
HH04	- Sharecropper	- Sharecropper
	- Sticky rice cracker seller	- Sticky rice cracker seller
	- Chicken rice porridge seller	- Chicken rice porridge seller
	- Motorcycle mechanic	- Student
	- Motorcycle mechanic	- Student
HH05	- Farmer and construction worker	- Farmer
	- Farmer	- Farmer
HH06	- Farmer, construction worker	- Farmer
	- Unemployed	- Garment worker
	- Farmer	- Farmer
HH07	- Farm hand, casual worker, and homemaker	- Farm hand, casual worker
	- Unemployed	- Student
HH08	- Gleaners of excess grains in paddy fields, traditional cracker seller	- Gleaners of excess grains in paddy fields, traditional cracker seller
HH09	- Sharecropper and *ojek* driver	- Sharecropper
HH10	- Food/toys peddler, casual worker	- Food/toys peddler, casual worker
	- Homemaker and running a small kiosk in front of the house	- Homemaker and running a small kiosk in front of the house
	- Unemployed	- Student
	- Garment worker	- Student

Table A6. Case Study in Banjar

	Changes in Work in the Past Year	
	Current Occupation(s)	Previous Year's Occupation(s)
HH01	- Rubber tapper	- Rubber tapper
HH02	- Unemployed	- Household worker
	- Rubber tapper	- Student
HH03	- Construction worker, fisher	- Rubber tapper
	- Quran preschool teacher	- Quran preschool teacher
	- Raw rubber collector working at the market	- Raw rubber collector working at the market
	- Tending own *warung*	- Unemployed
	- Raw rubber collector, construction worker	- Raw rubber collector, construction worker
HH04	- Raw rubber collector	- Selling vegetable dishes, raw rubber collector - Traditional diamond seeker, raw rubber collector, wood seller/wood middleperson
HH05	- Construction laborer	- Rubber tapper
	- Rubber tapper	- Rubber tapper
	- Rubber tapper	- Rubber tapper
HH06	- Rubber tapper, massage therapist	- Rubber tapper
	- Rubber tapper	- Rubber tapper
HH07	- Cleaning service worker	- Cleaning service worker
HH08	- Rubber tapper, Islamic school teacher	- Rubber tapper
HH09	- Casual worker	- Vegetable seller
HH10	- Rubber tapper	- Rubber tapper
	- Casual worker	- Casual worker

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