Food and Nutrition Security Bulletin - Issue 2 (August – October 2009) East Java Province

Indonesia Food and Nutrition Security Monitoring System (FNSMS)

Highlights

- In East Java province, the proportion of food insecure and vulnerable household slightly decreased from 38% in the 1st round (Apr - Jul 09) to 34% in 2nd round (Aug - Oct 09). The decrease was significant in rural area (from 33% to 20%). This was likely due to the decreased expenditure on food, particularly cereals. No significant change was observed in urban area.

- In both areas, food security status was associated with structural factors such as main source of income, education level, type of cooking fuel, and ownership of assets were found to be associated with food security. In urban area, external shocks such as increased commodity prices were likely to have impacted household food security. This indicated that the situation is likely to be chronic in rural area, and a combination of chronic and transitory in urban area.

- Food insecure households were found to be dependent on food purchase. In both areas, cereal production at household level was very limited likely due to small land size. As a result, both farmers and non-farmers are dependent on food purchase. They are considered as highly vulnerable to price increases as well as income falls.
- However, existing formal supports were mainly to support short-term needs of the households such as RASKIN and BLT, and interventions for livelihood support such as and income generation had a low level of coverage.

Recommendations

- The future interventions aiming to improve household food security should focus on structural causes of chronic food insecurity such as: income generation/diversification, agricultural intensification, and increasing ownership of asset.

- Targeting the food insecure: More food secure households owned a refrigerator, motorbike, and farming machinery than food insecure households. In rural area, all households using LPG or kerosene for cooking fuel were food secure. These might be appropriate for targeting criteria for interventions.

- Since food insecure households are purchasing a high quantity of their foods, monitoring the prices of basic commodities as well as household expenditure patterns is important to provide early warning for the deterioration of household food security.

Methodology

- Sampling: 250 households (urban: 125; rural:125) were randomly selected and interviewed using a pre-tested questionnaire. In the 2nd round, 247 households (urban: 125; rural: 122) were interviewed.

- Collected data: household composition, education, child labour, type of housing, water source, type of cooking fuel, food crops, ownership of land, livestock, assets , cash income sources, joblessness, migration, food access, food consumption (last 7 days), expenditures, difficulties, coping strategies and formal assistance.

- Food security indicators: Food access groups were determined by matching the monthly per capita expenditure (MPCE) groups (poor, near-poor, non-poor) with monthly food expenditure groups (poor, average, good), Data on food eaten by household members in the last 7 days were used to define a food consumption score (FCS), a proxy of current household food security. The calculation and the rationale for the thresholds are presented in Annex 1. A composite food security groups were determined by matching the food consumption groups with and food access groups. This resulted in three final categories namely food insecure, vulnerable and food secure.

- Data entry and analyses: ANOVA and Chi-square tests were used to assess differences in household food security. For all analyses, a probability value of 0.05 was accepted as significant. SPSS 16.0 was used.

All details of the methodology are presented in Annex 1.

How many are food insecure and where are they?

Food Access: Overall, based on the monthly food expenditure, the proportion of the household who spent less than provincial poverty line was increased in urban area and reduced in rural area during the 2nd round. The increase in rural might be related to the increased food price and/or expenditure for the festival season such as house repair and social events.


Figure 1: Monthly per capita expenditure (MPCE)
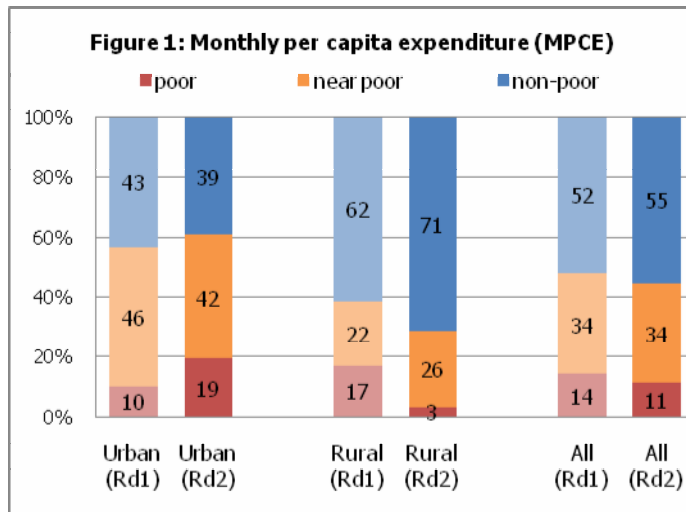
In urban area, no significant change in the share of food expensiture was observed. In rural area, the proportion of the household who spent more than 65% of total expenditure on food decreased from 74% to 70 % in the 2nd round. Detailed analysis showed that rural household decreased expenditure on cereals from 29% to 16%. This was likely because of the harvest of food crops. However, still 70% of rural households spent a large proportion of their monthly expenditure on food, particularly on cereals.

Figure 2: The share of food expenditure
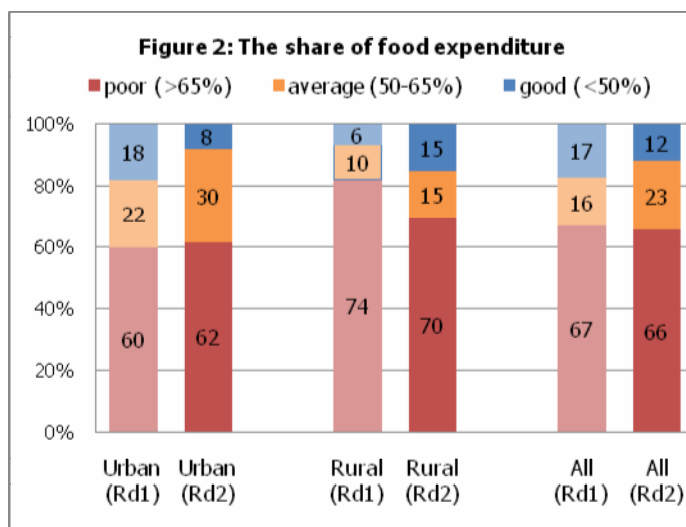
Food Consumption: The results of the food consumption score (FCS) indicate no significant change in the proportion of poor food consumption group between the 1st and 2nd rounds. No case with poor FCS was found in both 1st and 2nd rounds.

Overall, no significant change was observed in the frequency of meal. However, in Bangkalan district, 80% of the young children were fed only 2 meals per day over the past 7 days.

Figure 3: Food consumption score (FCS)
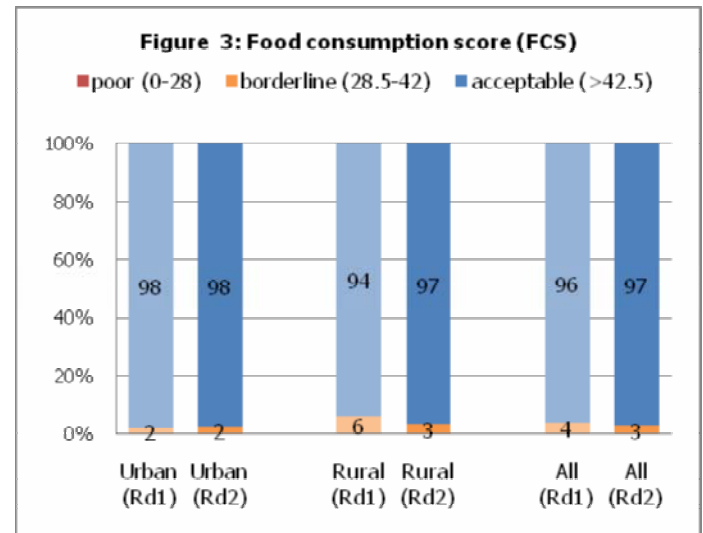
Food security is a multi-faceted concept as it is articulated in the definitions (Box 1 and 2). Therefore, a single indicator cannot measure it. Results from multiple indicators should be triangulated to identify the food insecure and vulnerable. In the FNSMS, the level of household food security was also estimated through the cross-tabulations of the monthly per capita expenditure, the share of food expenditure and food consumption score.

Box 1: Definition of food security (World Food Summit, 1996)

Food security exists when "All people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

Box 2: Definition of food security (Government of Indonesia, 1996)

Food Security is the fulfilment of food for every household, reflected from the availability of food in sufficient quantity and quality, safe, evenly distributed and accessible by people.

Composite food security group: The results of the composite food security group indicate that the proportion of food insecure and vulnerable household increased slightly in urban area (1st round: 44%, 2nd round: 48%), while it significantly reduced in rural area. This is likely due to the increased total expenditure and decreased share of food expenditure.

Similar to the 1st round, Sampang district had the highest percentage of food insecure and vulnerable households (2nd round: 68%, 1st round: 68%), while the lowest percentage was observed in Sumenep district (2nd round: 8%, 1st round: 10%).

Table 3: Food security group
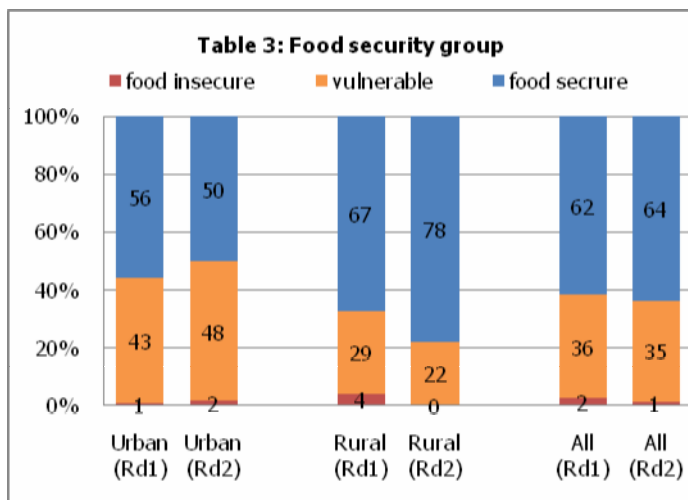
Who are the food insecure?

To identify food insecure households, household food security was investigated according to different characteristics.

Education: Overall, 34% (urban: 30%, rural: 37%) of household heads had never attended school or did not complete primary school. In rural area, the proportion of food insecure and vulnerable household was clearly higher among those household head who had never attended or did not complete primary school (Figure 5). The association was not found in urban area.

Figure 4: Food security and education
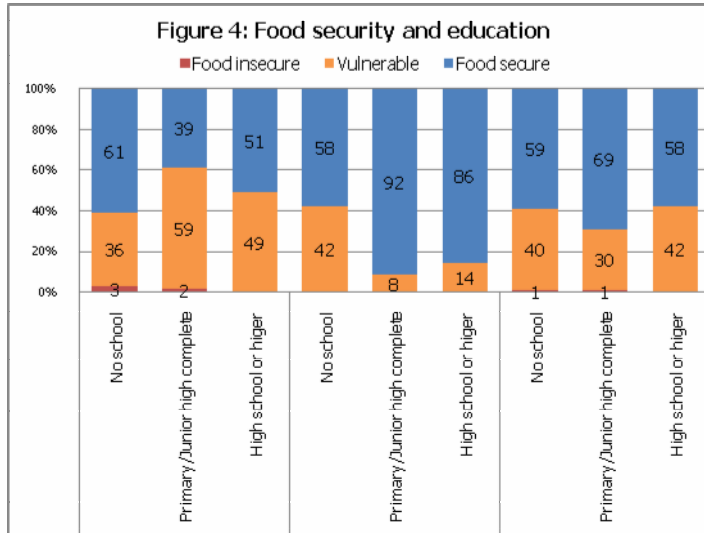
Note: The data was not collected in the 1st round.

Income source: Results showed a higher proportion of food insecure and vulnerable households among those without a regular income source such as non-agriculture unskilled wage labourers and agriculture wage labourers. Meanwhile, significantly less vulnerable households were found among those having regular and reliable income source such as self employed and skilled labour (Figure 6). 85% of households whose main income was the sale of own produced food crops were food secure.

Figure 5: Food security and main income source
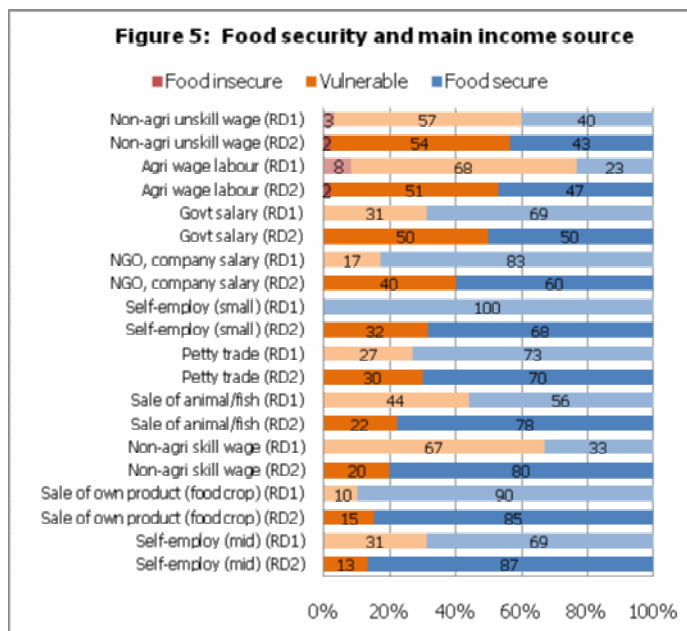
Similar to the 1st MP, more non agriculture unskilled and agricultural wage labours were found in Sampang (46% and 32% respectively) and Probolinggo (18% and 32%).

Expenditure pattern: Some differences in expenditure pattern were found between food insecure and secure households. Food insecure and vulnerable spent a significantly larger share of their expenditure on cereals (food insecure: 24%, vulnerable: 17%) than food secure households (13%). Food insecure households tend to spend more share of their expenditure on sugar (4%), oil (5%) than food secure households (3% and 2%, respectively). Food insecure households significantly increased the expenditure share on meat, egg and fish (12% to 19%) likely for celebrating holiday.

Cooking fuel: In rural area, a higher proportion of food insecure and vulnerable households were found among those using wood for main cooking fuel. No food insecure and vulnerable household was observed among those using kerosene and LPG or kerosene for cooking (Figure 8). In urban area, most households were using kerosene and LPG for cooking fuel.

Figure 6 : Food security and cooking fuel
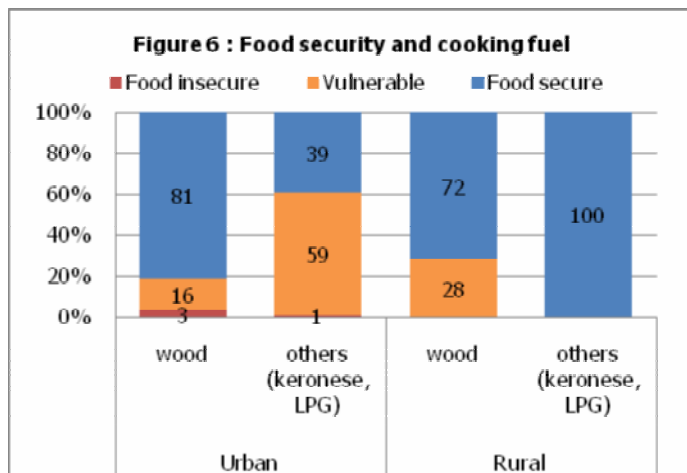
Assets: Most common household assets owned by food insecure and vulnerable households were bicycle (76%), television (67%), faming machinery (50%) and motorbike

(48%). More food secure households owned faming machinery, motorbike and fridge. No significant change was observed between the 1st and 2nd rounds.

Food security was also associated with the number of owned assets. In rural area, food insecurity and vulnerable households had less assets. Meanwhile, more vulnerable households were found among those who owned more assets (Figure 7).

Figure 7: Food security and number of assets
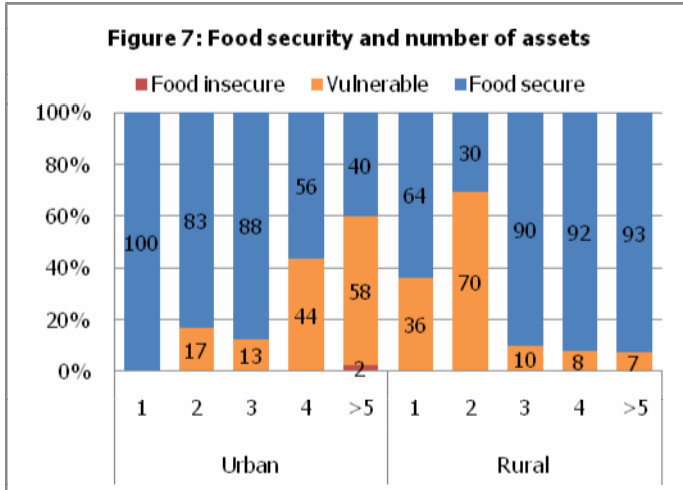
The association was found between food security status and household staple production in both areas. A higher proportion of food insecure and vulnerable household was found among those who do not produce staple food in urban area. Meanwhile, more vulnerable households were found among those who produced staple food in rural area (Figure 8).

Figure 8: Food security and staple production

In urban area, a large proportion of non-farmers such as non-agricultural wage labourer, small business owner and petty traders also produced staples for their consumption and/or secondary income source. In rural area, most households produced staples regardless of their primary income source. However, more households were engaged in staple production as a primary income source. The average size of the owned land was very small among all income source groups (Figure 9).
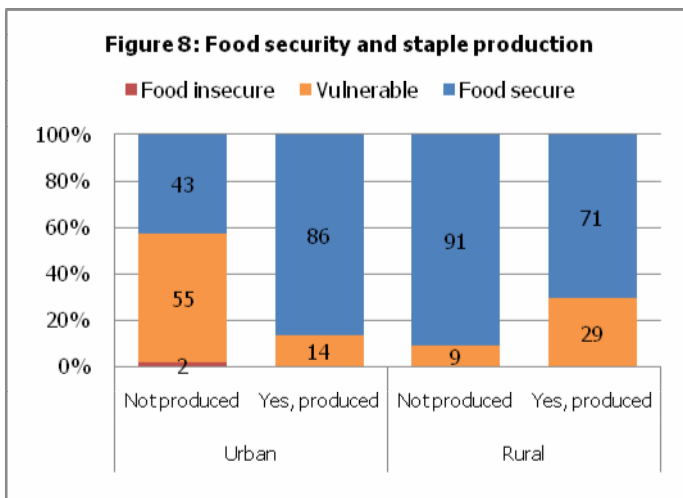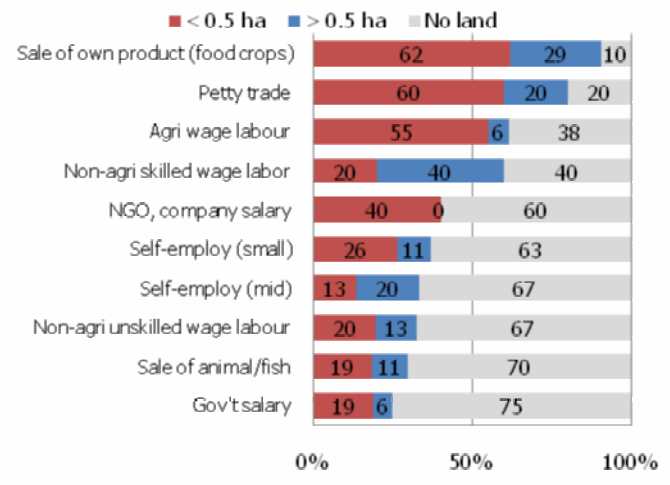

Figure 11: Owned land size and income source

In rural area, more food insecure and vulnerable households were found among those without staple in stock. More than half of agricultural wage labourers did not have stock at all on the day of the survey.

Figure 12: Staple in stock on the day of the interview (in rural area)

Transient or chronic: In urban area, more than half of household experienced difficulty to buy foods or to cover other essential expenditures during the past 30 days. The association with food security was also found in urban area. Meanwhile, 27% of household experienced such shocks in rural area, and the association with food security was not significant. This indicates that the food insecurity is chronic in rural area, while it is likely a combination of both chronic and transient in urban area.

In summary, structural factors such as main source of income, education level, type of cooking fuel, and ownership of assets were found to be associated with food security. In urban area, in external shocks such as increased commodity prices were likely to have impacted household food security.

However, it appears that household food security do not vary according to the gender and age of household head, household size, child absenteeism, child labour, water source, unemployment and migration.

Based on the above results, the situation is likely to be chronic in rural area, and a combination of chronic and transitory in urban area.

Food insecure households were found to be dependent on food purchase. In both areas, cereal production at household level was very limited likely due to small land size. As a result, both farmers and non-farmers are dependent on food purchase. They are considered as highly vulnerable to price increases as well as income falls.

However, existing formal supports were mainly to support short-term needs of the households such as RASKIN and BLT, and interventions for livelihood support such as and income generation had a low level of coverage.

How are they coping?

Experienced difficulties: The 3 most frequently answered difficulties faced between July-October were related to cash availability and price increase (Annex 2). A few percentage of households mentioned production constraints such as natural disasters and crop pest as difficulties. No significant change from 1st round was observed.

High commodity prices: No significant differences are found between urban and rural area in all items, except cooking oil (higher in rural area). It is known that the provincial prices are closely linked with national prices which marked significant increase since early 2007. This explains frequently mentioned high commodity prices as a main difficulty. Moreover, the increased commodity prices deteriorate food accessibility not only in urban areas, but also in rural areas where food insecure households are dependent on market for their foods.

Coping strategies: Coping strategies are used by people to make use of their own capacities to offset the threads to their food security. The households mostly adopted long-term livelihood strategies which were at non-depleted level to acquire food rather than short-term strategies such as alternation of consumption patterns.

Commonly adopted coping strategies were seeking alternative or additional jobs (46%), extending working hours (37%), and reduce snack (29%). No significant difference was observed between urban and rural households and 1st and 2nd rounds. Again, main coping strategies of the households were to increase the access to cash income.

Who is struggling the most? : To identify the households who were struggling the most, the Reduced Coping Strategy Index (RCSI) was calculated. The average RSCI in the 2nd round increased to 13 (urban: 9, rural: 17) from 9 (urban: 8, rural: 11) in the 1st round. As it was observed in the 1st round, agricultural wage labourer and seller of own products were likely struggling the most (Figure 10).

Figure 9: Reduced Coping Strategies Index (RSCI)
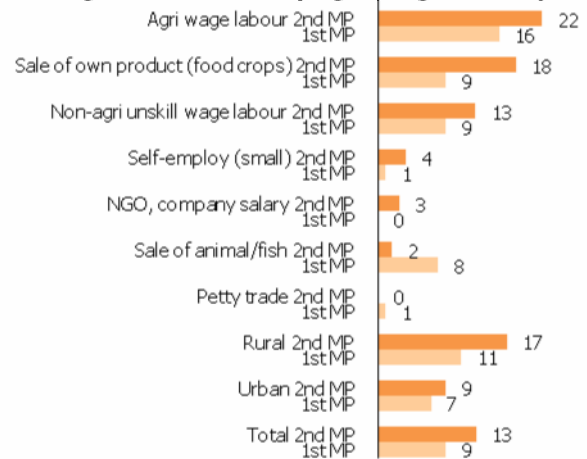
Formal assistance: During August - October 2009, the subsidized rice for the poor program (RASKIN) and unconditional cash transfer program (BLT) were two major assistance programs. There were no or negligible livelihood support programs and nutrition programs in all areas.

Overall, Raskin program assisted 54% of the surveyed households (32% in urban, 57% in rural) which increased from 44% in the 1st round. However, no significant change in the proportion of food security of the recipients was observed from the 1st round. 43% of non-recipients were not recipients in urban area, and more than half of the recipients were food secure households in rural area.

Figure 11 : Food security status of RASKIN/BLT recipients and non-recipients
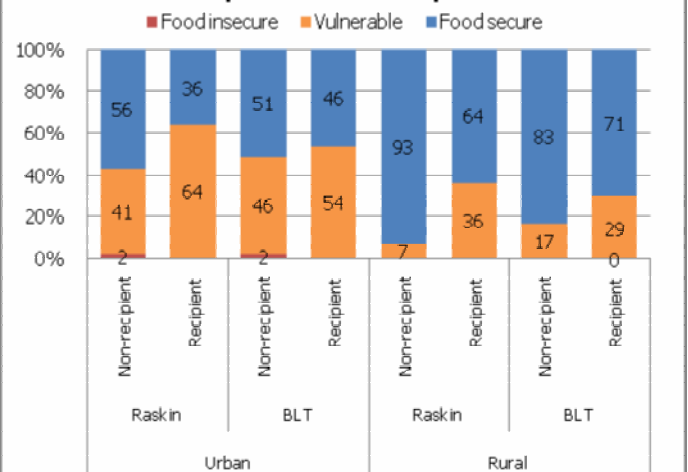
Similar pattern was found in unconditional cash transfer program (BLT). BLT assisted 32% in the 2nd round and it was higher in rural (43%) than urban (21%). In rural area, the program assisted more food insecure and vulnerable households (29%) than food secure (71%).

Is the situation likely to change in the coming months?

Since the main causes of food insecurity in East Java are more related to underlying livelihood factors rather than natural shocks, the problem will persist for an extended period of time. Therefore, significant improvement is not expected in short-term. However, human-induced shocks such as commodity price increase and financial crisis will considerably affect the vulnerable and food insecure who are dependent on cash for their food access. Therefore, in addition to the sudden-onset disasters (such as earthquake) the following three factors are considered as risk factors in the coming months.

Price increase: Commodity prices, particularly sugar and kerosene, are still upward trend at national level. The price of rice is also volatile from early 2010 due to the delayed planting in main production areas. Since food insecure households spend a large portion of their expenditure for sugar, sudden and significant increase of sugar price may deteriorate their food access.

Crop failure: Crop failure due to the natural disasters such as flood, drought and pest will be a risk factor for subsistent farmers in rural area whose own production is constrained by small land and economic access to food is limited.

BLT: The unconditional cash transfer program which provided poor households with Rp 700,000 per year will be discontinued. This may affect the food access of the recipients particularly of those who have limited cash income.

Recommendations

The future interventions aiming to improve household food security should focus on structural causes of chronic food insecurity such as income generation, agricultural intensification and asset creation.

Income generation/diversification: Efforts should be made to provide or improve household income, whilst at the same time to encourage diversification into activities with higher and more stable incomes, through introduction of rural financial schemes and training in enterprise development.

Agricultural intensification: A mid and long-term support to improve the productivity of subsistent farmers in rural area will be one of the key strategies to enhance their access to staple food and resilience to high food price.

Targeting the food insecure: More food secure households owned a refrigerator, motorbike, and farming machinery than food insecure households. In rural area, all households using LPG or kerosene for cooking fuel were food secure. These might be appropriate for targeting criteria for interventions.

Monitoring commodity prices: Since food insecure households are dependent on market for their foods, monitoring the prices of basic commodities as well as household expenditure patterns are important to provide early warning for the deterioration of household food security.

Early warning for natural disasters: In order to improve the resilience of the rural farming households to natural disasters, it is important to provide them with early warning of frequent natural disaster floods and droughts based on climate prediction.

Next monitoring period

The 3rd round will be November 2009 – January 2010. The bulletin will be released in April 2010.

Methodology of Household Food Security Analysis

Household food security in this FNSMS Bulletin is analyzed using methodology which is highlighted in the second edition of Emergency Food Security Assessment (EFSA) Handbook (WFP, January 2009). The analysis is based on the Food and Nutrition Security Conceptual Framework which considers food availability, food access and utilization as core determinants of food security and link these to households' livelihood strategies and assets.

Because the FNSMS aims to assess food security at household level, the analysis is focused on <u>food access</u> (Monthly Per Capita Expenditure, Share of Food Expenditure), <u>food utilization</u> (Food Consumption Score) and <u>coping strategies </u>(Reduced Coping Strategy Index). Other <u>shock-related indicators of transitory food insecurity</u> were also analyzed (experienced difficulties/problems, absenteeism of school age children, child labor, joblessness, in – and out-migration). From the above, the analysis can answer **five key questions** of food security and vulnerability: **How many** households are food insecure? **Where** are the food insecure? **Who** are the food insecure? **Why** are they food insecure? And **How** are they coping?

1. Monthly Per Capita Expenditure (MPCE)
The households are asked about their monthly expenditure (including cash, credit, own production) spent on food and non-food items during the last calendar month before the survey to approximate their income. The monthly per capita expenditure is calculated, and then households are categorized into three groups (poor, near poor, non-poor) based on the latest provincial poverty line (BPS 2008), and the World Bank's threshold for the near-poor at US$2 PPP (Purchasing Power Parity) which is converted into IDR using the 2008 national PPP exchange rate. The thresholds in IDR are as follows:

- **Poor:**   less than IDR 126,746 for rural NTT, 199,006 for urban NTT
                less than IDR 150,968 for rural, IDR 179,261 for urban of West Kalimantan
                less than IDR 155,432 for rural, IDR 183,408 for urban of East Java
                less than IDR 160,527 for rural, IDR 196,229 for urban Central Sulawesi
- **Near poor:** between the above regional poverty line and US2 PPP or IDR 331,846 for all provinces
- **Non-poor**: more than IDR 331,846 for all provinces

2. Share of Food Expenditure

The share of food expenditure of total expenditure is a proxy indicator of household food security. The higher the share of food expenditure, the greater the likelihood that a household has poor food access. The commonly used threshold for the share of food expenditure are used to classify households into poor, average and good food expenditure groups:

- **Poor:** food expenditure is **more than 65%** of total household expenditure
- **Average**: food expenditure is at **50-65%** of total household expenditure
- **Good:** food expenditure **is less than 50%** of total household expenditure

3. Food Consumption Score (FSC)

The FCS is considered as an adequate proxy indicator of current food security because the FCS captures several elements of food access and food utilization (consumption).

Household food consumption is calculated using a proxy indicator - the Food Consumption Score (FCS). FCS is a composite score based on dietary frequency, food frequency and relative nutrition importance of different food groups.

Dietary diversity is the number of individual foods or food groups consumed over the past seven days. *Food frequency* is the number of days (in the past 7 days) that a specific food item has been consumed by a household. Household food consumption is the consumption pattern (*frequency * diversity*) of households over the past seven days.

Calculation of FCS and household food consumption groups

1. Using standard 7-day food frequency data, group all the food items into specific food groups.

2. Sum all the consumption frequencies of food items of the same group, and recode the value of each group above 7 as 7.

3. Multiply the value obtained for each food group by its weight and create new weighted food group scores.

4. Sum the weighed food group scores, thus, creating the food consumption score (FCS). The most diversified and best consumption with maximal FCS at 112 means that all food groups are eaten 7 days a week.

5. Using the appropriate thresholds, recode the variable food consumption score, from a continuous variable to a categorical variable, to calculate the percentage of households of poor, borderline and acceptable food consumption.

Food Items, Food Group and Weight (FNSMS, Indonesia, 2008)

No	FOOD ITEMS	Food groups	Weight
1	Maize, maize porridge, rice, sorghum, millet pasta, bread and other cereals	Cereals and tuber	2
2	Cassava, potatoes and sweet potatoes		
3	Beans. Peas, groundnuts and cashew nuts	Pulses	3
4	Vegetables and leaves	Vegetables	1
5	Fruits	Fruit	1
6	Beef, goat, poultry, pork, eggs and fish	Meat and fish	4
7	Milk yogurt and other diary	Milk	4
8	Sugar and sugar products	Sugar	0.5
9	Oils, fats and butter	Oil	0.5
10	Condiments	Condiments	0

Food Consumption Score thresholds

The following thresholds of FSC are used to categorize households into three food consumption groups based on the knowledge of consumption behaviors of the majority of Indonesian at present, which are:

Food consumption groups	Food Consumption Score	Description
Poor	0-28	An expected consumption of staple 7 days, vegetables 5-6 days, sugar 3-4 days, oil/fat 1 day a week, while animal proteins are totally absent
Borderline	28.5 -42	An expected consumption of staple 7 days, vegetables 6-7 days, sugar 3-4 days, oil/fat 3 days, meat/fish/egg/pulses 1-2 days a week, while dairy products are totally absent
Acceptable	> 42	As defined for the borderline group with more number of days a week eating meat, fish, egg, oil, and complemented by other foods such as pulses, fruits, milk

4. Reduced Coping Strategy Index (RCSI)

When livelihoods are negatively affected by a shock /crisis, households may adopt various mechanisms (strategies) which are not adopted in a normal day-to-day life, to cope with reduced or declining access to food.

Coping Strategy Index (CSI) is often used as a proxy indicator of household food insecurity. CSI is based on a list of behaviors (coping strategies). CSI combines: (i) the *frequency* of each strategy (how many times each strategy was adopted?); and (ii) their *(severity)* (how serious is each strategy?) for households reporting food consumption problems. Higher CSI indicates a worse food security situation and vice versa. CSI is a particularly powerful tool for monitoring the same households or population over time. There are two types: "full CSI" and "reduced CSI".

In this FSNMS, RCSI is used. RCSI is based on the same short list of 5 coping strategies, and the same severity weights. It is very useful for comparing across regions and countries, or across income/livelihood groups, because it focuses on the same set of behaviors. The maximal RSCI is 240 during the past 30 days (i.e. all 5 strategies are applied every day)**.** There are no universal thresholds for RCSI.

Table below is an example of RCSI of this analysis, with RCSI at 27.

Coping Strategies	Raw score	Universal Severity Weight	Weighted Score = Frequency x Weight
1. Eating less preferred /expensive foods	5	1	5
2. Borrowing food or relying on help from friends and relatives	2	2	4
3. Limiting portion size at mealtime	7	1	7
4. Limiting adult intake in order for small children to eat	2	3	6
5. Reducing the number of meals per day	5	1	5
Total Household Score – Reduced CSI	Sum down the total for each individual strategy	27	

5. Estimation of proportion of food insecure households based on composite food security (How many?)

The level of household food security is calculated through two cross-tabulations of the above three indicators.

Firstly, monthly per capita expenditure groups (poor, near-poor, non-poor) are cross-tabulated with food expenditure groups (poor, average, good) to identify *three food access groups* (poor, average, good). Table below is an example of the first cross-tabulation. Poor food access households (51%, in red cells) are those having either poor or near-poor monthly per capita expenditure combined with either poor or average food expenditure.

Monthly per capita expenditure / Food expenditure	Poor	Near-poor	Non-poor
Poor (>65% of total expenditure)	32%	3%	1%
Average (50-65% total expenditure)	16%	4%	1%
Good (<50% of total expenditure)	34%	6%	4%

Note: *Red = Poor food access, Yellow = Average food access, Green = Good food access*

Secondly, food consumption groups and food access groups derived from the first cross-tabulation are matched to identify ***three composite food security groups*** (food insecure, vulnerable and food secure). Table below is an example of the second cross-tabulation. Food insecure households (29%, in red cells) are those having either poor or average food access combined with either poor or borderline food consumption.

Food access / Food consumption	Poor	Average	Good
Poor (0-28 scores)	9%	6%	0%
Borderline (28.5 – 42 scores)	14%	8%	1%
Acceptable (> 42 scores)	27%	26%	9%

Note: *Red = Food insecure, Yellow = Vulnerable, Green = Food secure*

6. Determination of characteristics of food insecure households
Identified food insecure households are matched with their livelihood characteristics such as location, sex, age and education of household head, household size, age dependency ratio, main cash income source, housing, water and sanitation, land and livestock ownership, assets, coping strategies, child education and labor, unemployment, migration, etc. to answer other four questions: Where, Who, Why they are

food insecure, and How they are coping.

These analyses allow for determining whether food insecurity is **chronic** (long-term, persistent) caused by underlying structural and contextual factors which do not change quickly (local climate, soil type, local governance system, public infrastructure – roads, irrigation, land tenure, etc.), or **transitory** (short term, transient) mostly caused by dynamic factors which can change quickly (natural disasters, displacement, diseases, migration, soaring food prices).

ANNEX 2. Main socio-economic characteristics of surveyed households
Area: All 4 provinces **East Java** Nusa Tenggara Timur West Kalimantan Central Sulawesi
Period: 1st MP (Jun-Jul 09) 2nd MP (Oct-Nov 09) 3rd MP (Jan-Feb 10) 4th MP (Mar-Apr 10)

* = difference between urban and rural is significant(P<0.05)

Characteristics	Urban		Rural		All	
	1st MP (May - Jul)	2nd MP (Aug - Oct)	1st MP (May - Jul)	2nd MP (Aug - Oct)	1st MP (May - Jul)	2nd MP (Aug - Oct)
1. Gender of household head (%)						
Male	96	96	91	89	94	92
Female	4	4	9	11	6	8
2. Age of household head (mean)	47	47	44	43	46	45
3. Education level of household head (%) *						
No school, incompleted primary school		30		37		34
Primary or junior high school completed		37		51		44
High school or university completed		33		12		22
4. Household size (mean)	5	5	4	4	4	4
5. Household having under 5 children (%)	26	25	18	22	22	23
Average number (person)	1	1	1	1	1	1
6. Household having at least 1 school aged child (%)	77	76	74	75	76	76
7. Ratio of dependants (= dependants / non-dependants)	39	38	40	40	39	45
8. Households having a child absent from school last month (%)		0		4		2
Due to child labour	0	0	0	0	0	0
Child labour: working hours 0-4 hours/day	0	0	0	0	0	0
Child labour: Working hours >4 hours/day	0	0	0	0	0	0
Child labour: Engaged in household chore	0	0	0	0	0	0
Child labour: Supporting famility business	0	0	0	0	0	0
Child labour: Working in informal sectors	0	0	0	0	0	0
9. Housing conditions (%) *						
Non-durable (wood, herb)	6	6	21	17	13	11
Semi permanent (ground part: durable, upper part: non-durable)	10	10	26	29	18	20
Durable (brick, cement)	84	84	54	54	69	69
10. Type of dwelling (%)						
Individual house (separated from neighbour)	100	99	99	98	100	99
Flat in multi-storey building	0	1	0	0	0	0
Room(s) in a shared house or shared flat	0	0	1	2	0	1
11. Access to water sources (%) *						
Improved	77	95	66	74	72	85
Unimproved	23	5	34	26	28	15
12. Distance to the main source of drinking water (%)						
less than 30 minutes		99		95		97
30 to 60 minutes		1		2		2
more than 60 minutes		0		2		1
13. Cooking fuel (%) *						
Wood	32	26	78	78	55	52
Others (kerosene, LPG, biogas, electricity)	68	74	22	22	45	48
14. Type of latrine (%) *						
Flush latrine/toilet with water		72		42		57
Traditional pit latrine (no water)		7		41		24
None/bush (go to forest, river, lake, dam, beach etc)		21		17		19
15. Ownership of land (%) *						
Households do not own land	62	63	34	34	48	48
Households own land	38	37	66	66	52	52
16. Average owned land size (ha, among those who own land)	0	0	0	0	0	0
17. Owned land size (%, among those who own land)						
Households own the land sized less than 0.5 ha	74	74	67	69	70	71
Households own the land sized more than 0.5 ha	26	26	33	31	30	29
18. Rental of land (%)						
Households do not rent land	98	98	94	96	96	97
Households rent land	2	2	6	4	4	3
19. Investment of land (%)						
Households do not invest land	100	100	98	99	99	100
Households invest land	0	0	2	1	1	0
20. Mortgage of land (%)						
Households do not mortgage out land	92	96	98	98	95	97
Households mortgage land	8	4	2	2	5	3
21. Staple food production in a normal year (%) *						
Households do not produce staple food in a normal year	65	64	33	34	49	49
Households produce staple food in a normal year	35	36	67	66	51	51
22. Average production of staple food in a normal year (kg, among those who produce staple food in a normal year)	1335	1013	958	1038	1147	1029
23. Level of the staple requirement met by own production in a normal year (%, among those who produce staple) *						
HH Production meets less than 3 months requirement	7	67	7	39	7	53
HH Production meets from 3 to 7 months requirement	16	6	25	17	21	12
HH Production meets more than 7 months requirement	77	26	68	44	73	35

Characteristics	Urban		Rural		All	
	1st MP (May - Jul)	2nd MP (Aug - Oct)	1st MP (May - Jul)	2nd MP (Aug - Oct)	1st MP (May - Jul)	2nd MP (Aug - Oct)
24. Sale of cereals in a normal year *						
None	75	70	43	43	54	50
Less than half	7	7	11	11	9	10
About half	11	4	28	28	22	22
More than half	2	4	17	17	12	14
All	5	15	1	1	2	5
25. Sale of tubers in a normal year						
None	75	83	93	95	91	93
Less than half	0	0	4	3	3	2
About half	0	0	0	0	0	0
More than half	25	17	0	0	3	2
All	0	0	4	3	3	2
26. Staple food production in 2009 *						
Households do not produce staple food in a normal year	66	82	34	35	50	59
Households produce staple food in a normal year	34	18	66	65	50	41
27. Avg production of staple in 2009 (kg, among those produced)	570	479	795	845	718	766
28. Average production of staple food in 2009(%, met requirement, among those who produce staple in 2009)						
HH Production meets less than 3 months requirement	12	14	8	8	10	9
HH Production meets from 3 to 7 months requirement	21	32	24	28	23	28
HH Production meets more than 7 months requirement	67	55	67	65	67	63
29. Level (%) of the 2009 staple requirement met by accumulated harvested crops (mean)	121	122	168	181	144	168
30. Staple (cereals and tubers) in stock (%) *						
Households without staple in stock	16	1	23	20	20	10
Households with staple in stock	84	99	77	80	80	90
31. Average amount of staple in stock (kg, among those who had staple in stock)	220	120	443	207	332	163
32. Number of days which last current cereals in stock (among those who had stock)	289	51	215	97	242	89
33. Number of days which last current tubers in stock (among those who had stock)	0	4	23	0	23	1
34. Ownership of livestock (%) *						
Household without livestock	49	56	46	42	48	49
Households own livestock	51	44	54	58	52	51
35. Average number of livestock	9	9	7	8	8	8
36. Number of owned assets (%) *						
None (0)	0	0	0	0	0	0
From 1 to 3	21	19	42	43	32	31
More than 4	79	81	58	57	68	69
37. Number of household members regularly earning income (%)						
None (0)	0	0	0	0	0	0
1 person	51	56	65	67	58	62
2 persons	41	35	31	28	36	32
More than 3 persons	8	9	4	5	6	7
38. Number of income sources (%) *						
None (0)	0	0	0	0	0	0
1 source	57	62	45	58	51	60
2 sources	30	24	52	41	41	33
More than 3 persons	14	14	3	2	8	8
39. Main income source (3 predominant)*						
1st	Non-agricultural unskilled wage labour	Non-agricultural unskilled wage labour	Sale of food crops production	Sale of food crops production	Sale of food crops production	Agricultural wage labour
2nd	Agricultural wage labour	Agricultural wage labour	Agricultural wage labour	Agricultural wage labour	Non-agricultural unskilled wage labour	Non-agricultural unskilled wage labour
3rd	Government employee salary	Government employee salary	Self-employed of medium scale	Sale of animals/animal products/fish	Self-employed of medium scale	Sale of food crops production
40. Households having unemployed members (%)	9	4	5	5	7	4
41. Household having out-migrated members in Indonesia and abroad (%) *	0	0	0	4	0	2
42. Number of meals per day (12-59 months old children) (%) *						
None (0)	6	0	0	9	4	5
1 meals per day	0	3	0	0	0	2
2 meals per day	41	30	9	0	29	15
More than 3 meals per day	53	67	91	91	68	79
43. Number of meals per day (15-49 years old) (%)						
None (0)	0	1	0	10	0	5
1 meals per day	0	0	1	0	0	0
2 meals per day	1	1	1	2	1	1
More than 3 meals per day	99	98	98	89	99	93

Characteristics	Urban		Rural		All	
	1st MP (May - Jul)	2nd MP (Aug - Oct)	1st MP (May - Jul)	2nd MP (Aug - Oct)	1st MP (May - Jul)	2nd MP (Aug - Oct)
44. Number of meals per day (other household members) (%)						
None (0)	0	1	0	2	0	1
1 meals per day	0	1	0	0	0	0
2 meals per day	1	1	1	2	1	1
More than 3 meals per day	99	97	99	96	99	97
45. Food consumption score - FCS (%)						
poor (0-28)	0	0	0	0	0	0
borderline (28.5-42)	2	2	6	3	4	3
acceptable (>42.5)	98	98	94	97	96	97
46. Monthly food expenditure (%) *						
poor (>65%)	60	62	74	70	67	66
average (50-65%)	22	30	10	15	16	23
good (<50%)	18	8	6	15	17	12
47. Monthly per capita expenditure - MPCE (%) *						
poor (below poverty line)	10	19	17	3	14	11
near poor (above poverty line, below US$2/day in PPP rate)	46	42	22	26	34	34
non-poor	43	39	62	71	52	55
48. Food security group (%)						
food insecure	1	2	4	1	2	1
vulnerable	43	46	29	19	36	33
food secrue	56	52	67	80	62	66
49. Most frequently experienced difficulties in the past 3 months *						
1st	(No difficulty)	(No difficulty)	Limited cash	Limited cash	Limited cash	Limited cash
2nd	Limited cash	Limited cash	High food prices	High food prices	(No difficulty)	High food prices
3rd	Increased costs for social events	High food prices	Agriculture/fishing issues	Increased costs for social events	High food prices	(No difficulty)
50. Households experienced any shocks in the past 30days (%)						
Yes, experienced	43	58	63	27	53	43
No, not experienced	57	42	37	73	47	57
51. Most frequently applied coing strategies						
1st	Extend working hours (68.5%)	Extend working hours to gain income (52%)	Seek alternative/ additional jobs (78.5%)	Seek additional jobs (61%)	Seek alternative/additional jobs (63.9%)	Seek alternative or additional jobs (46%)
2nd	Rely on less preferred/expensive food (46.3%)	Reduce snacks (29%)	Reduce snacks (43.0%)	Reduce snacks (28%)	Extend working hours (42.9%)	Extend working hours to gain income (37%)
3rd	Seek alternative/ additional jobs (42.6%)	Rely on less preferred and less expensive food (21%)	Purchase food on credit (38.0%)	Purchase food on credit, incur debts (28%)	Reduce snacks (41.4%)	Reduce snacks (29%)
52. Coping Strategy Index (mean) *	7	17	11	7	9	13
53. Household assisted by RASKIN program (%) *	32	29	57	50	44	39
54. Household assisted by BLT program (%) *	23	21	50	43	36	32

Prices of basic commodities

4 Provinces (All)

Commodity	Current price (IDR/kg, ltr, piece)	Change in price (%)			Average monthly change over		
		1 m	3 m	1 yr	1 m	3 m	1 yr
Rice (RASKIN)	2,090	↓	→	↑	↓	→	↑
Rice (High quality)	6,379						
Rice (Medium quality)	5,411						
Rice (Low quality)	3,559						
Maize	5,516						
Noodle (Fortified)	1,490						
Noodle (Unfortified medium quality)	1,357						
Tempe	1,502						
Tofu	1,186						
Egg	17,882						
Cooking oil (Bimoli)	11,747						
Cooking oil (Local)	7,195						
Sugar (Regular)	10,264						
Sugar (Brown)	9,682						
Kerosene	3,730						

East Java (All)

Commodity	Current price (IDR/kg, ltr, piece)	Change in price (%)			Average monthly change over		
		1 m	3 m	1 yr	1 m	3 m	1 yr
Rice (RASKIN)	1,725	↓	→	↑	↓	→	↑
Rice (High quality)	5,702						
Rice (Medium quality)	4,857						
Rice (Low quality)	3,559						
Maize	3,240						
Noodle (Fortified)	1,254						
Noodle (Unfortified medium quality)	1,128						
Tempe	1,207						
Tofu	n.a.						
Egg	14,409						
Cooking oil (Bimoli)	12,630						
Cooking oil (Local)	11,000						
Sugar (Regular)	10,449						
Sugar (Brown)	9,180						
Kerosene	3,163						

4 Provinces (Urban)

Commodity	Current price (IDR/kg, lir, piece)	Change in price (%)			Average monthly change over		
		1 m	3m	1 yr	1 m	3 m	1 yr
Rice (RASKIN)	1,863	↓	→	↑	↓	→	↑
Rice (High quality)	6,491						
Rice (Medium quality)	5,373						
Rice (Low quality)	4,588						
Maize	5,654						
Noodle (Fortified)	1,489						
Noodle (Unfortified medium quality)	1,313						
Tempe	1,379						
Tofu	836						
Egg	17,935						
Cooking oil (Bimoli)	11,698						
Cooking oil (Local)	7,592						
Sugar (Regular)	10,231						
Sugar (Brown)	9,852						
Kerosene	3,670						

East Java (Urban)

Commodity	Current price (IDR/kg, lir, piece)	Change in price (%)			Average monthly change over		
		1 m	3 m	1 yr	1 m	3 m	1 yr
Rice (RASKIN)	n.a.	↓	→	↑	↓	→	↑
Rice (High quality)	5,702						
Rice (Medium quality)	4,852						
Rice (Low quality)	4,588						
Maize	3,055						
Noodle (Fortified)	1,231						
Noodle (Unfortified medium quality)	1,128						
Tempe	1,027						
Tofu							
Egg	13,904						
Cooking oil (Bimoli)	13,009						
Cooking oil (Local)	n.a.						
Sugar (Regular)	10,084						
Sugar (Brown)	9,471						
Kerosene	2,899						

4 Provinces (Rural)

Commodity	Current price (IDR/kg, lir, piece)	Change in price (%)			Average monthly change over		
		1 m	3 m	1 yr	1 m	3 m	1 yr
Rice (RASKIN)	2,160	↓	→	↑	↓	→	↑
Rice (High quality)	6,244						
Rice (Medium quality)	5,543						
Rice (Low quality)	3,148						
Maize	5,360						
Noodle (Fortified)	1,490						
Noodle (Unfortified medium quality)	1,400						
Tempe	1,676						
Tofu	1,642						
Egg	17,823						
Cooking oil (Bimoli)	11,810						
Cooking oil (Local)	6,922						
Sugar (Regular)	10,297						
Sugar (Brown)	9,510						
Kerosene	3,790						

East Java (Rural)

Commodity	Current price (IDR/kg, lir, piece)	Change in price (%)			Average monthly change over		
		1 m	3 m	1 yr	1 m	3 m	1 yr
Rice (RASKIN)	1,725	↓	→	↑	↓	→	↑
Rice (High quality)	n.a.						
Rice (Medium quality)	5,000						
Rice (Low quality)	3,148						
Maize	3,510						
Noodle (Fortified)	1,281						
Noodle (Unfortified medium quality)	n.a.						
Tempe	1,712						
Tofu	n.a						
Egg	14,898						
Cooking oil (Bimoli)	11,819						
Cooking oil (Local)	11,000						
Sugar (Regular)	10,684						
Sugar (Brown)	8,442						
Kerosene	3,428						

↑ Price increase amove normal price fluctuation

→ Normal price fluctuation

↓ Price decrease below normal fluctuation

Price fluctuation is considered normal if the change is within 5% for 1 month, or within 10% for 3 months or within 15% for one year.