

# Timor Leste

## Food Security Bulletin

Issue No. 8 July- September 2014

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### Highlights

- The 2014 main season rice production increased by 10% due to the area planted and area harvested 14% higher than the same season in 2013.
- The main season rice yield in 2014 decreased by 2.5% compared to the same season in 2013.
- The second season rice final production estimates decreased compared to the same season last year (2013), with planted and harvested areas dropped by 69%, due to irregular rainfall.
- Availability of seeds during the second season was adequate following increased government program on seed multiplication, and result of other support program on seed saving and management.
- The final estimate of cereal deficit for marketing year 2014/15 (April/March) is 17,407 tonnes of maize and 72,168 tonnes of rice.
- Total rice import during the month of April to September was 58,759 tonnes, including the 13,304 tonnes of rice imported by the Government (Ministry of Commerce Industry and Environment -MCIE) during the first and second quarter.
- The month-on-month general inflation in July stood at 0.4%, 0.1% in August and 0.2% in September. The year-on-year inflation during the month of July and August remain the same, while the inflation for the month of September stood at 0.5 year-on-year.
- In July and September, the average price for subsidy rice and commercial rice was decreased, while the maize price increased. Rice price decreased right after the harvest of the first crop from June to September from \$0.63/kg to \$0.61/kg for subsidy rice and from \$0.71/kg to \$0.68/kg for commercial rice. While the maize price increased from \$0.63/kg to \$0.82/kg during the month of September.
- The districts with reported high deficits of both maize and rice were in Ermera, Ainaro and off grid areas in Dili. These areas were identified to be the most food insecure. While the district of Manufahi, Bobonaro and Oecusse were reported to have some surplus on maize but with high deficits on rice.
- The nutritional status of children under five years old shows improvement from July to September. Severe underweight children were 3% and moderate underweight children were 12% during the third quarter.

*The Timor-Leste Food Security Bulletin (FSB) is a product of the EU and FAO supported project on establishing a sustainable National Information and Early Warning System (NIEWS) on Food Security in Timor-Leste. The FSB aims of reporting and providing information on national and household food security situation in a quarterly basis. This is a MAF led innovation of ensuring the timely delivery of information to decision makers and wider stakeholders on the general overview of the food security situation in the country as an early warning to mitigate the serious impact of food shortages and hunger. This **third quarter** issue provides the final production estimates for both first & second season rice as well as cereal deficits & surplus. It also includes market information for the main food products, price indexes, rainfall and vulnerability.*

*The European Union funds this product. The views expressed in this publication do not necessarily reflect the views of the European Union.*



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## CROP PRODUCTION

### Crop production for marketing year 2014/2015

- **Rice**

This year main season rice production final estimate was 84,871 tonnes, 10 percent higher than that of the same season in 2013. The result of the crop cutting conducted by the National Crop Assessment Team (NCAT) confirmed that, the main season rice yield this year decreased, although not significant, following intermittent rains during the months from April to July at the time when paddy was at its vegetative stage. Below average rains were recorded in most areas of the country particularly in main producing areas, including Baucau, Manatuto, Covalima, Viqueque and Bobonaro districts.

The second season, final estimate rice production is about 3,953 tonnes from the harvested area of 1,251 hectares, significantly dropped (69%) compared to the same season in 2013, this was due to the reduction of planted areas considering the irregular rain. Despite of this, the overall total rice production for marketing year 2014/15 was increased to 1,492 tonnes compared to the total rice production in 2013/2014, due to the increase of 2% on area harvested during the first season.

- **Maize**

The Ministry of Agriculture and Fisheries (MAF) confirmed that the maize production final estimate for marketing year 2014/2015 was at 102,473 tonnes. Maize surplus was observed in district Bobonaro, Oecusse, Covalima and Manufahi, while reported maize deficits was in Ermera, Ainaro and off grid areas in Dili.

**Table 1: Final Estimate of Planted and Harvested Area, Productivity and Production of the main season rice and maize during the marketing year 2013/14 compared to marketing year 2012/13**

Commodity	Maize				Rice				
	Main Cropping year	Planted Area (ha)	Harvested Area (ha)	Yield (t/ha)	Total Production (t)	Planted Area (ha)	Harvested Area (ha)	Yield (t/ha)	Total Production (t)
2012/2013	38,905	37,572	2.4	91,360	26,521	23,941	3.2	77,017	46,210
2013/2014	36,961	36,486	2.8	102,473	27,263	27,232	3.12	84,871	50,922
Change (%)	(5)	(3)	16	12	3	14	(2.5)	10	10

Source: MAF

Note: The production figure reflected in this table is final.

**Table 2: Main Season Rice Final Estimate**

District	Potential Area (Ha)	Planted Area (ha)	Harvested Area (ha)	Yield (t/ha)	Total Production (t)	Milled rice Equivalent (t)
Aileu	776	485	485	3.02	1,465	879
Ainaro	6,076	259	259	3.50	907	544
Baucau	14,423	9,782	9,782	3.31	32,378	19,427
Bobonaro	7,662	2,685	2,685	3.20	8,592	5,155
Covalima	5,615	3,830	3,830	2.64	10,111	6,007
Dili	150	80	80	3.43	274	165
Ermera	2,419	1,890	1,859	3.29	6,117	3,670
Lautem	3,864	906	906	3.79	3,434	2,060
Liquisa	1,866	250	250	3.04	760	456
Manatuto	12,731	1,403	1,403	3.27	5,991	3,595
Manufahi	9,942	144	144	2.24	323	194
Oecusse	5,705	2,316	2,316	1.61	3,720	2,232
Viqueque	9,793	3,233	3,233	3.34	10,798	6,479
<b>Total</b>	<b>81,022</b>	<b>27,263</b>	<b>27,232</b>	<b>3.12</b>	<b>84,871</b>	<b>50,922</b>

Source: DNAH-MAF

Table 3: Second Season Rice Final Estimate

District	Area (Ha)	Planted Area (ha)	Harvested Area (ha)	Yield (t/ha)	Total Production (t)	Milled rice Equivalent (t)
Aileu	776	76	76	2.5	190	114
Ainaro	6,076	195	160	2.4	384	230.4
Baucau	14,423	0.40	0.40	7.2	2.88	1.7
Bobonaro	7,662	235	235	1.4	329	197.4
Covalima	5,615	502	502	4	2,009	1,205
Dili	150				0	0
Ermera	2,419	15	15	2.1	31.5	18.9
Lautem	3,864				0	0
Liquisa	1,866				0	0
Manatuto	12,731	24	24	3	72	43.2
Manufahi	9,942	80	80	3.1	248	148.8
Oecusse	5,705	137	137	4.79	653.8	392.3
Viqueque	9,793	22	22	1.5	33	19.8
<b>Total</b>	<b>81,022</b>	<b>1,286</b>	<b>1,251</b>	<b>3.16</b>	<b>3,953</b>	<b>2,372</b>

Source: DNAH-MAF

Table 4: Final Rice Production Estimate in 2014

District	Potential Area (Ha)	Planted Area (ha)	Harvested Area (ha)	Yield (t/ha)	Total Production (t)	Milled rice Equivalent (t)
Aileu	776	561	561	2.95	1,655	993
Ainaro	6,076	419	419	3.08	1,291	775
Baucau	14,423	9,782	9,782	3.31	32,381	19,429
Bobonaro	7,662	2,920	2,920	3.06	8,921	5,353
Covalima	5,615	4,332	4,332	2.80	12,120	7,272
Dili	150	80	80	3.43	274	164
Ermera	2,419	1,905	1,874	3.28	6,149	3,689
Lautem	3,864	906	906	3.79	3,434	2,060
Liquisa	1,866	250	250	3.04	760	456
Manatuto	12,731	1,427	1,427	4.25	6,063	3,638
Manufahi	9,942	224	224	2.55	571	343
Oecusse	5,705	2,453	2,453	1.78	4,374	2,624
Viqueque	9,793	3,255	3,255	3.33	10,831	6,499
<b>Total</b>	<b>81,022</b>	<b>28,514</b>	<b>28,483</b>	<b>3.12</b>	<b>88,824</b>	<b>53,294</b>

Source: DNAH-MAF

## Factors affecting production

### Agro-meteorology

In general, all districts received rain from 10 – 85 mm during the month of July and August 2014. Although, the rainfall was lower compared to the same months in 2013, particularly during the month of July, in the districts of Dili, Aileu, south of Manatuto, Venilale in Baucau and in Viqueque town. However, during the month of August majority of the districts received rain between 45-85 mm. Having intermittent rain resulted to a lower yield compared to the same cropping period in 2013.

Low level of rainfall was also recorded in September when most of the rice crop was all matured and about to be harvested. Most of the districts received rain from 0 to 15 mm, which is lower compared to the same month in 2013. However, this low rainfall level at the end of the production period was supportive in facilitating the efficient harvesting and was considered normal as transiting to the dry season.

The VHI informs the overall vegetation conditions and indicates vegetation stress level particularly the early indication on drought. The Vegetation Health Index (VHI) a composite index and the elementary indicator used to compute the Agricultural Stress Index (ASI) that combines both the Vegetation Condition Index (VCI) and the Temperature Condition Index (TCI).

Timor-Leste Vegetation Health Index (VHI) during the month of July and August, indicates that most areas have an index between 0.65 to 0.75, while in September most areas have an index between 0.15-0.55, this means that most area were dry. This level of VHI indicates that yield will be lower. In addition, during the month of September, areas that were indicated undergoing drought stress were in the high land of district Oecusse, Liquica and Ermera.

Figure 1: Precipitation Anomaly- Relative difference to Long Term Average

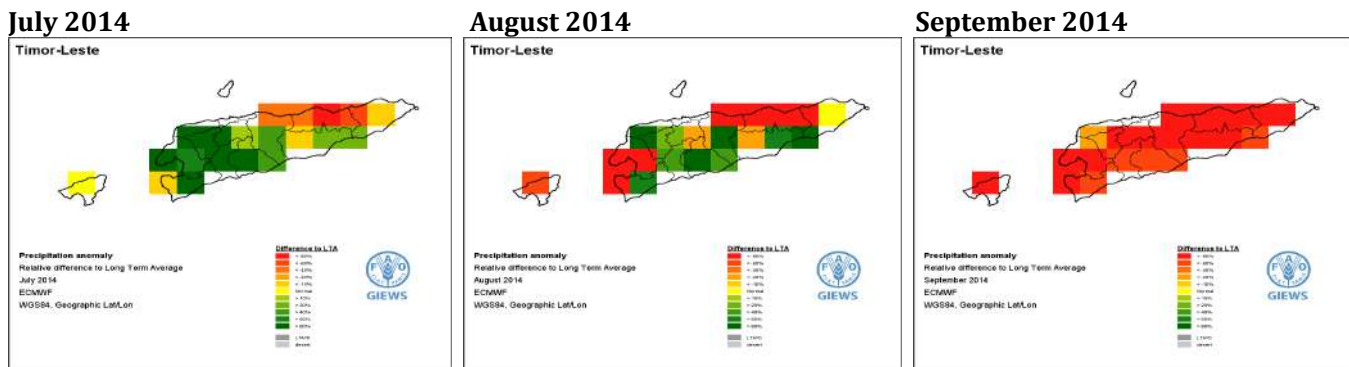
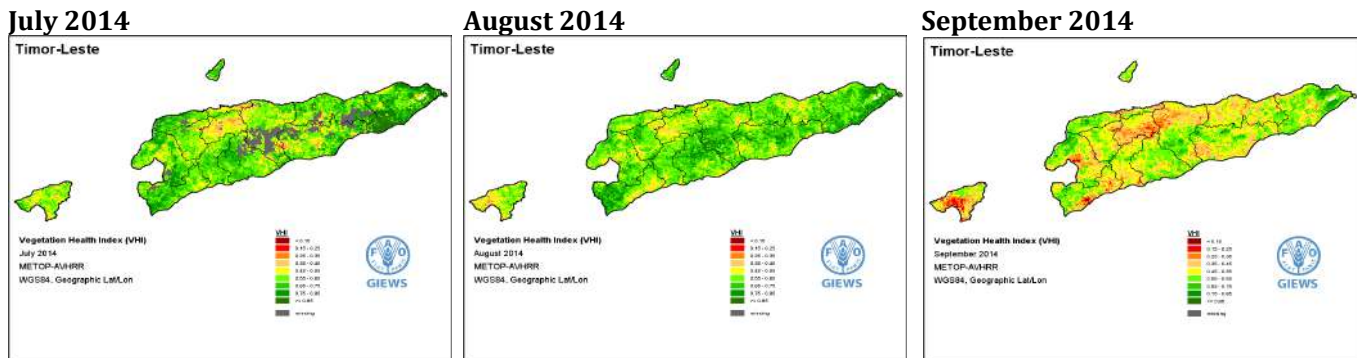
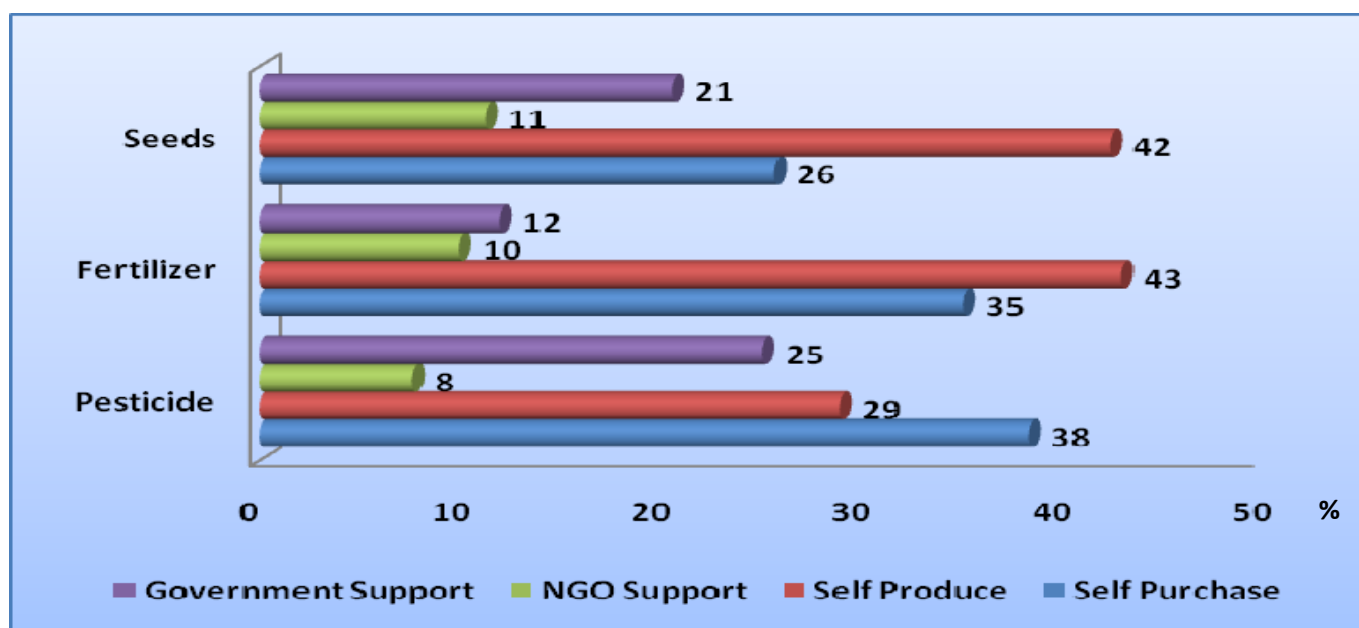


Figure 2: Vegetation Health Index (VHI) during the month of July to September 2014



## Means of Production and Input

Figure 3: Farmers access to inputs, by sources during the period of quarter 3, 2014



Source:SLMS-MAF

The availability and cost of agricultural inputs, including fertilizers, seeds and pesticides varies markedly throughout the country. Government distribution of free seeds, fertilizers and pesticides as well as fuel support for mechanization continued in 2014 first and second cropping.

The government reduced support on seed distribution, amplified the coverage on seed multiplication, farmers self-produced and saved seeds increased sharply along with the number of farmers purchase seeds, fertilizers and pesticides, due to programs that promote access to improved storage systems and commercialization of agricultural inputs. The SLMS reported that 42% of the farmers produced their own seeds, this is higher compared to last year 33%, while 21% of the farmers received seeds from the government, 25% received pesticides and 12% received fertilizers.

## ***FOOD SUPPLY AND DEMAND SITUATION***

### Final National Cereal Balance Marketing Year of 2014/15

The final National Cereal Balance for marketing year 2014/15 reflects the final rice and maize estimates of the first and second cropping.

The final cereal estimate for the marketing year 2014/15 (April/March) reflected a deficit of 72,168 tonnes for rice and 17,407 tonnes for maize. Even though it was reported that the production for the first crop this year was higher compared to the same period in 2013, the total deficit remains higher than in 2013, due to a very low production in the second cropping, while the cereal requirement increased with the increase in population.

**Table 5: National Cereal Balance Sheet Marketing Year 2014/15 (April/March)**

	Rice (T)	Maize (T)
<b>Domestic Availability</b>	<b>67,505</b>	<b>102,473</b>
Opening stocks 1/	11,012	
Final Estimate (maize and rice) Production from main season2/	50,922	102,473
Final Estimate Production from second season	5,135.8	
<b>Total utilization</b>	<b>139,325</b>	<b>119,880</b>
Food use 3/	128,484	81,211
Seed requirement 4/	570	2,174
Feed use 5/		16,000
Post harvest losses 6/	10,272	20,495
Targeted closing stocks 7/		
<b>Deficit/Surplus</b>	<b>-72,168</b>	<b>-17,407</b>
<b>Import Requirements</b>		
Anticipated commercial Imports	<b>72,168</b>	
Uncovered deficit/ to be covered by other crops/food		<b>17,407</b>

Source: MAF

In order to calculate the national cereal balance, the following assumptions were used:

1/ Only government stocks as of March 2014 (end of marketing year 2013/2014)

2/ Milling rate of paddy to rice is estimated at 60 percent

3/ Based on 106 kg per year/person of rice consumption and 67 kg per year/person of maize and a population of 1,212,110 in 2014, according to 2012 estimated population of 1,118,429 + 2.41% per year increase.

4/ According to the Directorate of Agriculture and Horticulture (DAH) of MAF, standard use of seed for: rice 25-35 kg/ha, maize 40-50 kg/ha

5/ There is no information available on the use of grains to feed animals. However, it is known that the 60% extraction rate of rice already takes into account and 6% that remains in the husk is given to animals. Maize, in turn is extensively used as feeding. Only chicken feeding is used for this calculation, based on MAF's standard consumption rate.

6/ DAH/MAF estimates 15-20% post-harvest losses in both rice and maize

7/ It may include contingency stocks.

## Cereal imports

**Table 6: Rice Imports during marketing year**

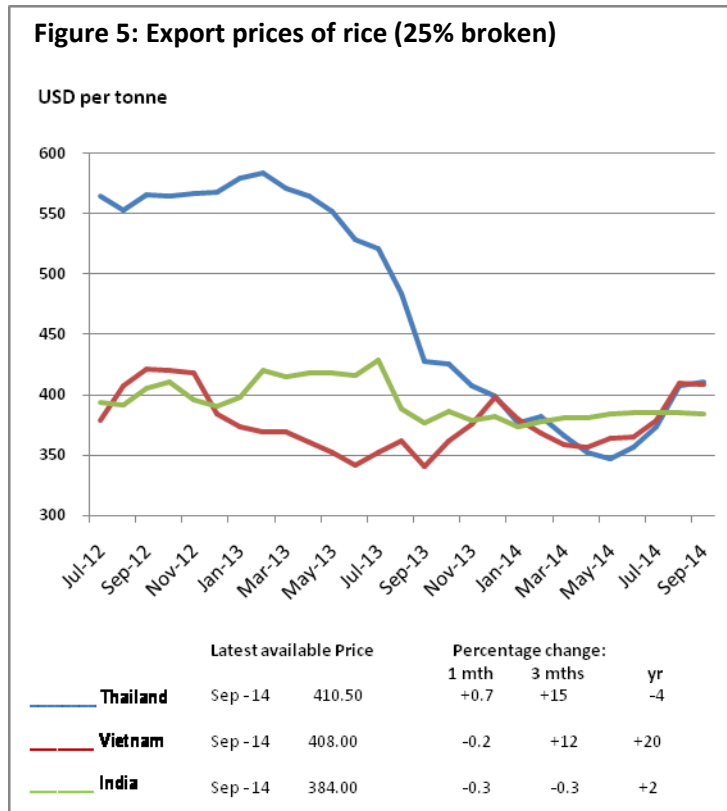
Rice Imports Marketing year April/March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
2012/2013	134	331	3,856	1	1	500	10,607	0.11	3,042	3	251	51	<b>18,778</b>
2013/2014	3,010	-	1,999	9,754	487	6,905	2,029	6	2,475	8,307	845	10,047	<b>45,864</b>
2014/2015	8,954	640	131	5,529	28,810	14,695							<b>58,759</b>

Source: MoF

- The cereal balance sheet reflected the final rice import requirement to about 72,168 tonnes for the marketing year 2014/15, to be able to fill up the cereal deficit. From April to September, the Custom services (ALFANDEGA) reported a total of 58,759 tonnes of imported rice, which is significantly higher compared to the same period in the marketing year 2013/14 of which the imported rice recorded at 22,155 tonnes.
- The government rice import was reported at 13,304 tonnes from January to September (3,403 tonnes during the second quarter and 9,901 tonnes during the third quarter) in the marketing year of 2014/15, this is in addition to the government cereal stock that was reported in January to about 11,012 tonnes .
- The MCIE distributed 1,960 tonnes of rice from the month of July to September 2014 to retailers at sub-national and national markets (8 tonnes), support to school feeding program (417 tonnes), support to social protection (839 tonnes) and humanitarian support (54 tonnes). This is in addition to the 3,564 tonnes that the MCIE distributed during the first and the second quarter. MCIE also reported that 642 tonnes of rice was spoiled, therefore, a balance of 17,824 tonnes.

## Food Prices

### Cereal Export Price



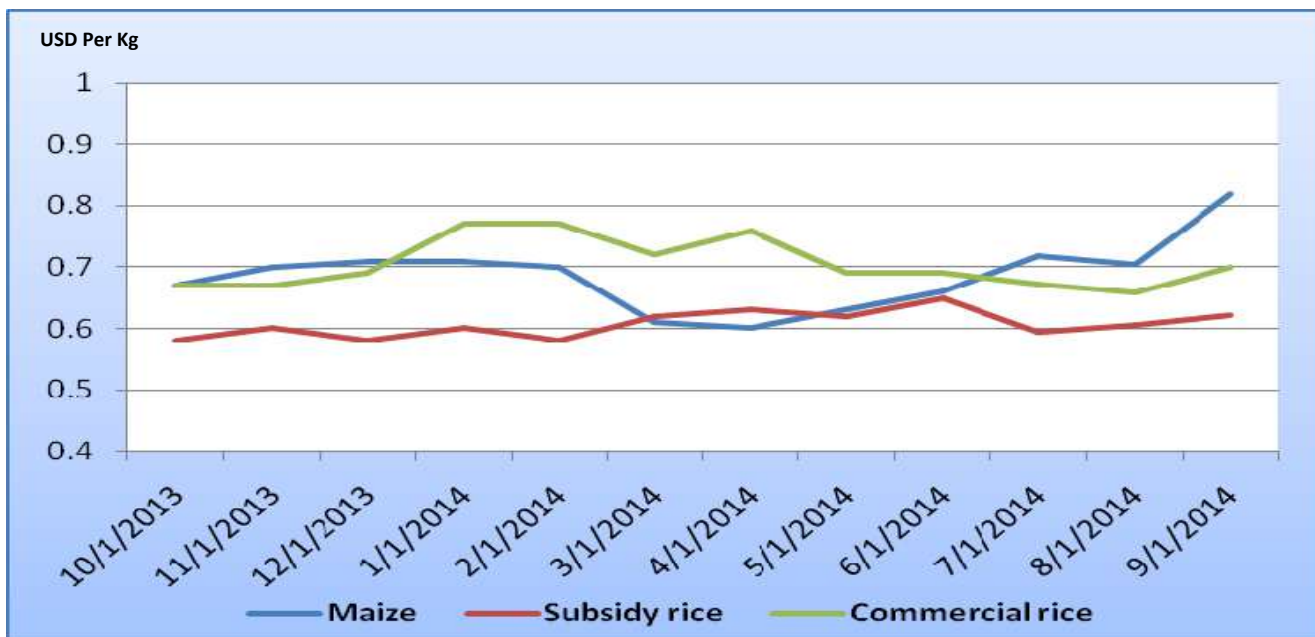
The FAO Global Food Monitor reported the latest export rice price from Thailand and Vietnam which normally Timor-Leste imported rice stood at 410.50 USD per tonnes and 408.00 USD per tonnes respectively, for the 25% broken rice. The price for the last three months was significantly increased. Unlike India, the price for the rice export stood at 384.00 USD per tonnes, decreased compared to 390.00USD per tonnes last quarter.

The 2014 main season harvests in the exporting countries such as Thailand and Vietnam notably generally good with low export demands. Vietnam export rice prices were still above their year-earlier levels, after sharp increases in July and August.

Furthermore, the FAO Global Food Monitor reported that in Indonesia, the average prices of medium-quality rice increased slightly in November to near record levels, despite the ongoing 2014 secondary dry paddy season harvest. A sharp increase of more than 30 percent in fuel prices (gasoline and diesel) in mid-November, following the reduction of government subsidies, supported rice prices. Overall, prices were above their year-earlier levels both in nominal and real terms.

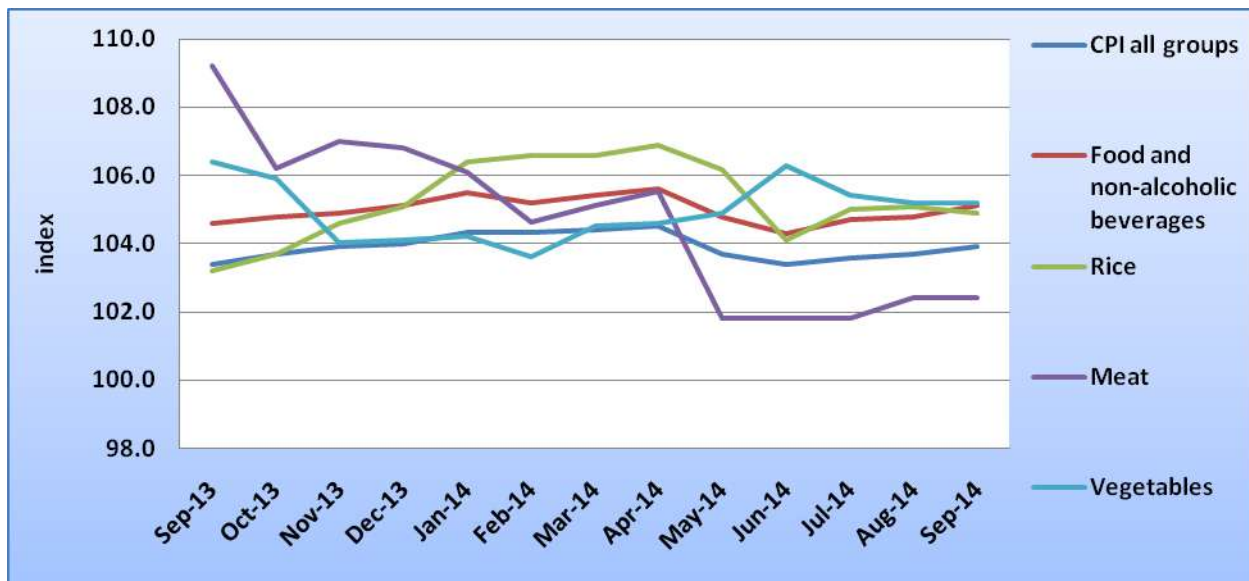
### Domestic Prices

Figure 6: Average retail Price of Maize and Rice



Source: SLMS-MAF

Figure 7: Price Indexes



Source: SLMS-MAF

- During the third quarter of 2014, the average price for subsidized rice slightly decreased at USD 0.63 per kg, while those of commercial rice decreased from USD 0.71 per kg to 0.68 per kg. The price fall was due to the harvest of the first crop that was finalized in September.
- The price of the maize increased from USD 0.63 per kg (last quarter) to USD 0.75 per kg, an increase of 19%, this is due to the decreasing supply in the market, particularly during the month of September when the price was increased from USD 0.71 during the month of August to USD 0.82.
- According to the Suco Level Food Security Monitoring System (SLMS) 13 villages belonging to five districts such as district Baucau, Bobonaro, Covalima, Lautem and Liquisa recorded higher prices, averaging USD 3.00 per kg for maize, USD 1.08 per kg for subsidized rice and USD 1.20 kg for commercial rice.
- During the month of July, the inflation stood at 0.2%, in August 0.1% and September 0.2% month-on-month, while no inflation change year-on-year during the month of July and August. However, the inflation for the month of September stood at 0.5% year-on-year, due to the inflation in recreation and culture by 6.7% and health 2.8%.

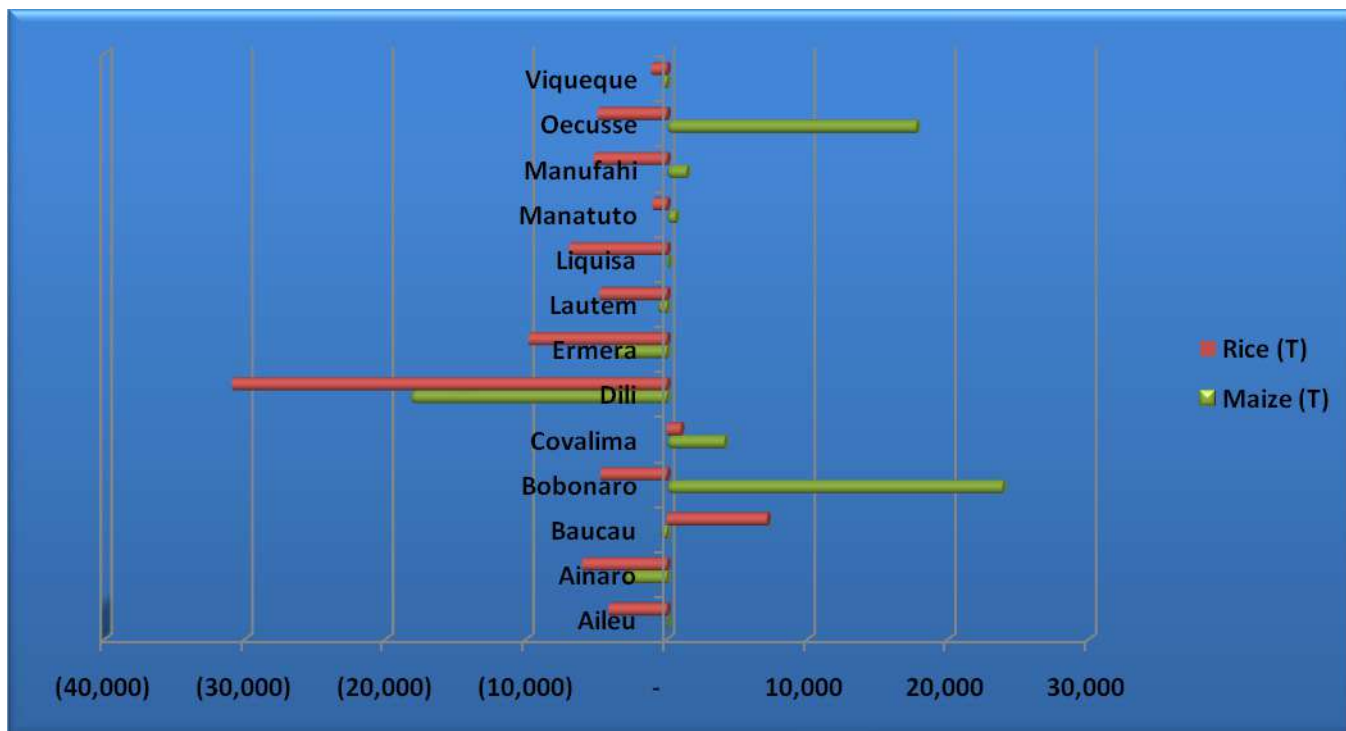
### **Household Food Security and Vulnerability Analysis**

- Generally, the food supply situation across the country has been reported normal from July to September. Food was accessible at the national and rural markets.
- The possibility of rice surplus was recorded in district Baucau and Covalima, while high deficit was recorded in district Ermera, Liquiça, Ainaro, Lautem, Manufahi, Oecusse and off grid areas in Dili. On the other hand, the highest maize surplus was recorded in district Bobonaro, Oecusse and Covalima.
- The Ministry of Social Solidarity (MSS) confirmed that in 2014 (July to September), MSS distributed 578 tonnes of rice in addition to the 233 tonnes distributed during the first quarter and 200 tonnes of rice during the second quarter. While, the Ministry of Commerce, Industry and Commerce (MCIE) distributed also 54 tonnes of rice to food insecure households, victims of disasters and to institutions like orphanages and church.
- The Ministry of Commerce, Industry and Environment (MCIE) reserved some 10,851 tonnes of imported rice as national food reserve, intended to respond to food shortages during the fourth quarter of 2014 of which normally food shortages occurs in different places, particularly in low producing areas.



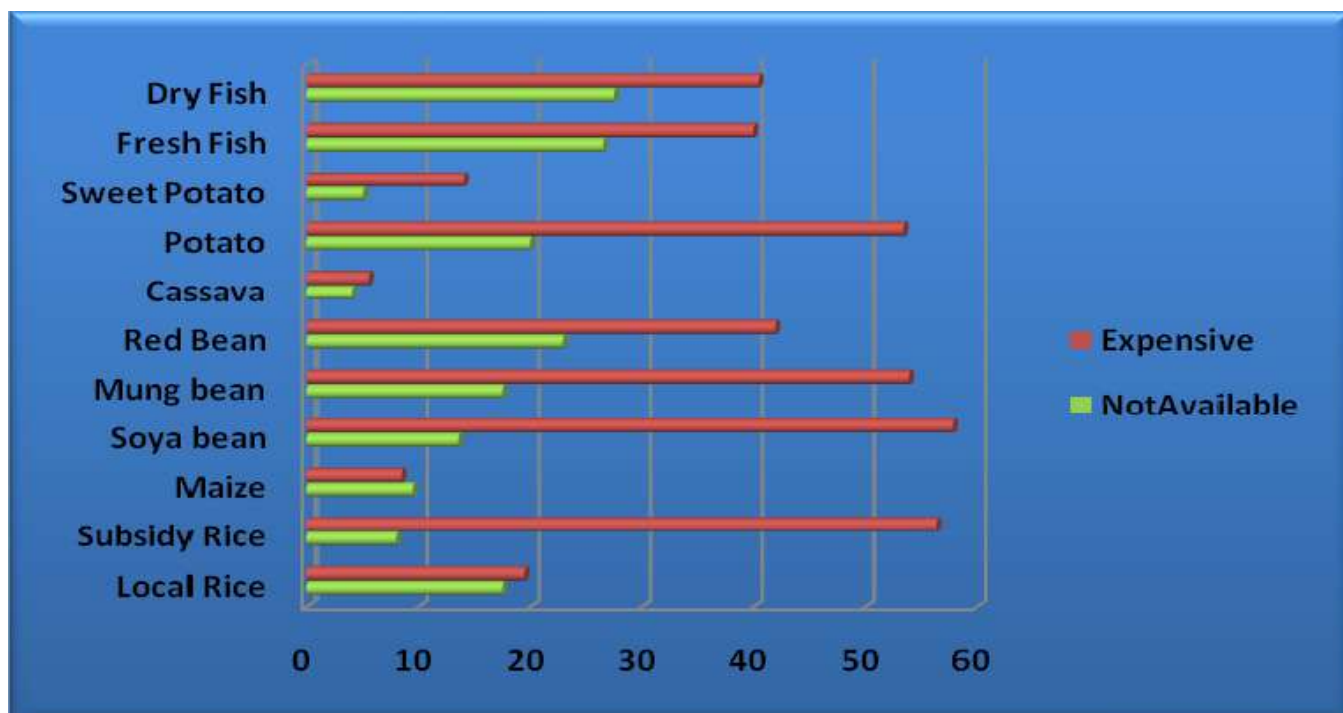
- The Ministry of Commerce, Industry and Environment (MCIE) reported that the local food acquisition program purchased 1,018 tonnes of paddy rice with a price set at \$0.54/kg in the district and \$0.59/kg in Dili, while for maize, MCIE purchased 774 kg with a price set at \$0.31/kg in the district and \$0.34/kg in Dili. The local food acquisition program also reported that MCIE distributed 4.1 tonnes of rice to the local markets with a standard price of \$13 per 25 kg, as well as provided 334 tonnes of rice for the school feeding program.

Figure 8: Cereal Production Surplus and Deficit



Source: MAF

Figure 9: Available and Accessible Food Commodities



Source: SLMS-MAF

## Nutrition and Health

Figure 10: Nutritional Status (Underweight) for Children under 5 during quarter 3 in 2014

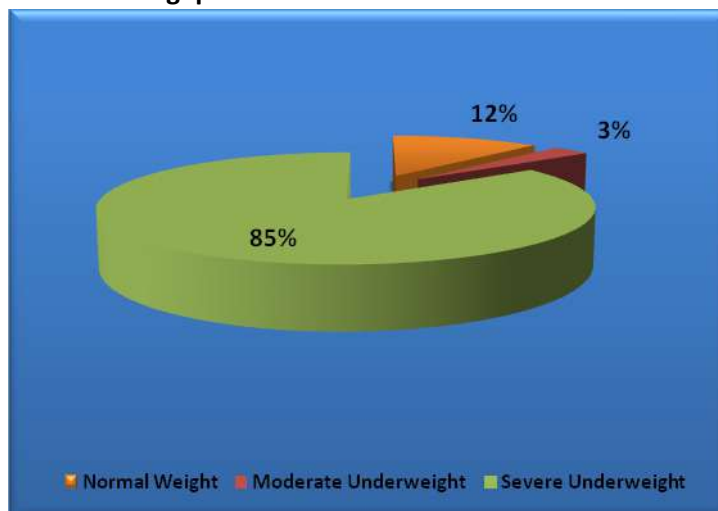


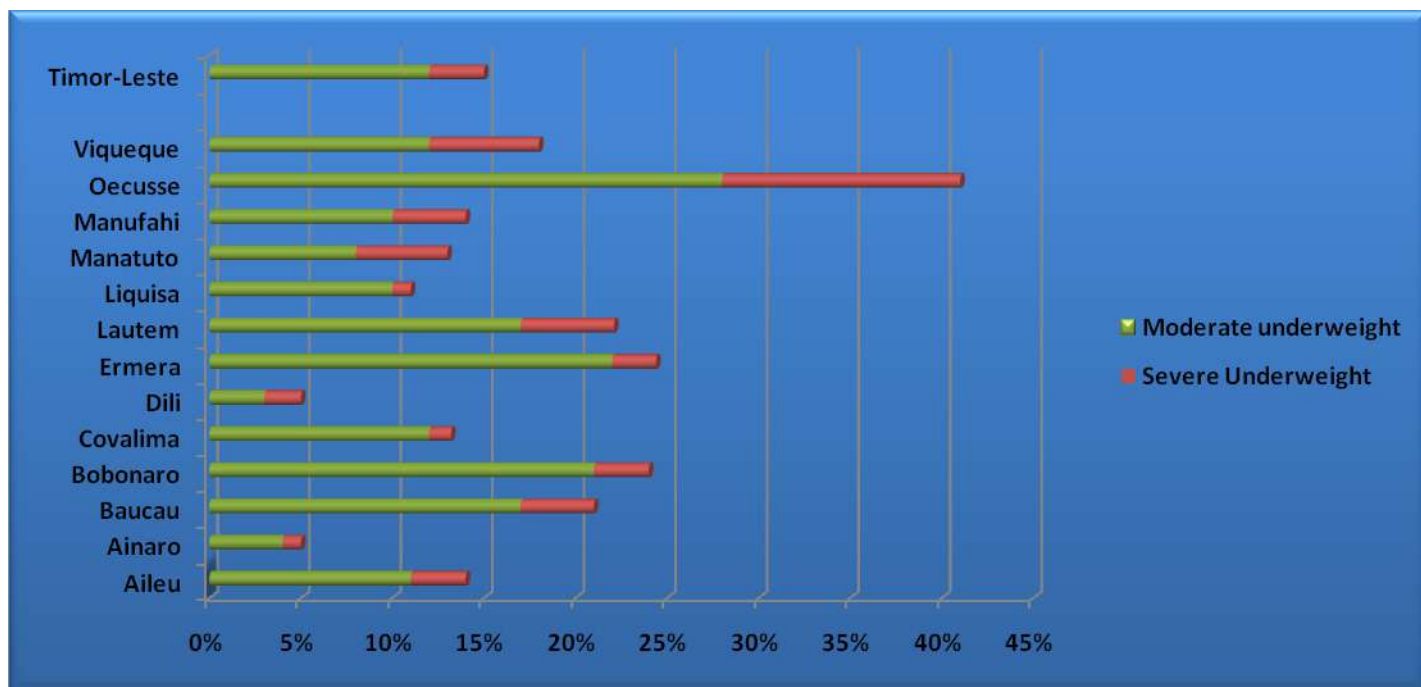
Figure 11: Average Percentage of Children weighted every month during quarter 3 in 2014, by District



Source: H-MIS- MoH

- During the third quarter of 2014, the Health Monitoring Information System (H-MIS) recorded a reduction of the number of moderate and severe malnourished children comparing to quarter two in 2014.
- The H-MIS recorded that during this quarter the percentage of children in Timor-Leste that used the health services increased from 20% to 43%. The districts with high number of weighted children during this quarter were in Aileu and Liquisa (79%), Baucau (63%), Manatuto (47%), Manufahi (42%) and Oecusse (40%).
- The districts reported to have high malnourished cases were in Oecusse (41%), Bobonaro (24%), Ermera (24%) and Baucau (21%). The Ministry of Health (MoH) also reported that the districts with high percentage of severe underweight were in district Oecusse (13%), Viqueque (6%), Manatuto (5%) and Lautem (5%).

Figure 12: Average Percentage of Moderate and Severe Underweight Children under 5 during Quarter 3 in 2014, by District



Source: H-MIS- MoH