

# Timor-Leste

# Food Security Bulletin

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## Highlights

- The 2015 rice production forecast at higher 94,708 tonnes (56,825 tonnes milled basis), 7 percent up compared to 2014. This projected increase is the result of higher yield forecast at 3.19 tonnes per hectare from a total estimated planted area of 29,693 hectares. This means 43% of the forecast rice consumption requirement of 131,979 tonnes for 2015/16 could be covered for an estimated population of 1,245,085.
- Higher forecast on maize production by 23% due to the increase in the coverage of the government mechanization program. The maize production forecast for 2015 is 125,609 tonnes with a yield of 2.90 tonnes per hectare from the total planted area of 43,288 hectares. For marketing year 2015/16 Timor-Leste the food requirements is forecast at 83,421 tonnes of maize, however, if including the other food utilization such as seed and animal feeds, the total requirement is forecast at 100,779 tonnes.
- The cereal deficit forecast for marketing year 2015/16 (April/March) is about 75,339 tonnes for rice and 291 tonnes for maize.
- During the first quarter of 2015, there was no import of rice by the public sector. Although, a total of 214,769 tonnes of rice was imported by the private sector during the marketing year of 2014/15, higher than the estimated cereal (maize and rice) deficits of 92,813 tonnes in 2014/15, hence, the remaining stocks could guarantee the 2015/16 cereal deficits of 75,630 tonnes.
- The general month-on-month inflation during the month of January and February stood at 0.6% respectively, while in March stood at 0.1%. The year-on-year inflation in March stood at 0.7%.
- The average price for subsidy rice and maize decreased during the month of January to March compared to quarter four of 2014. For maize it stood at USD 0.67/kg from USD 0.77/kg, while subsidy rice stood at USD 0.59/kg from USD 0.66/kg. Although, the average price for commercial rice was increased from USD 0.63/kg to USD 0.67/kg.
- In general, all municipalities received favourable rain during the month of January to March. Although, intermittent rain was observed in the coastal areas. It is therefore forecast that the maize yield in the coastal areas is lower compared to the upland areas.
- During the first quarter of 2015, the percentage of children in Timor-Leste who have utilized the health facilities increased from 18% (Q4 of 2014) to 23% this first quarter of 2015. Among the 23%, the severely underweight stood at 3% and moderately underweight stood at 8%.

*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 (NEWS) 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. In this quarter issue provides forecast for rice and maize production in 2015 and also national cereal balance sheet with possible deficits. This also includes market information and price for main food products, as well as information on 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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## Food Production

### • Rice

In this period planting of paddy for the cropping season 2014/15 was completed. The rice production forecast for the year 2015 (including the 2014/2015 main and 2015 secondary seasons) is 94,708 tonnes, equivalent to 56,825 tonnes milled rice with the yield forecast of 3.19 tonnes per hectare from the total planted area of 29,693 hectares. This means that 43 percent of the total rice consumption requirement for the estimated population of 1,245,085 (source: MoF-DNE) could be covered from the 2015 production. The Ministry of Agriculture and Fisheries (MAF) has forecasted possible paddy surplus in the Municipalities of Baucau and Manauto, while highest deficits in the Municipalities of Ermera, Liquisa, Ainaro, Oecusse and off grid areas in Dili.

### • Maize

Maize harvest is almost completed. The maize production forecast for the year 2015 (including the 2014/2015 main and 2015 secondary seasons) shows an increase of 23 percent compared to the 2014 level, due to a 17 percent increase of planted area. MAF has forecasted a 3% increase in yields from 2.81 tonnes/hectare in 2014 to 2.90 tonnes/hectare in 2015. Possible maize surplus in the Municipalities of Oecusse, Baucau, Lautem, no Manatuto, while highest deficits in the Municipalities of Ermera, Ainaro and off grid areas in Dili.

Table 1: Comparison on Cultivation, Yield and Production of rice and maize in 2014 to 2015.

Commodity	Maize			Rice			
	Year	Cultivated Area (ha)	Yield (t/ha)	Total Production (t)	Cultivated Area (ha)	Yield (t/ha)	Total Production (t)
2014	36,961	2.81	102,473	28,514	3.12	88,824	53,294
*2015	43,288	2.90	125,609	29,693	3.19	94,708	56,825
Percent Change (%)	17	3	23	4	2	7	7

Source: MAF

\*Note: In this period reported data on yield and production of rice and maize for 2015 is still a forecast.

Table 2: Maize & Rice Production forecast for 2015

Municipality	Maize				Rice				
	Potential Area (ha)	Cultivated Area (ha)	Yield (t/ha)	Production (t)	Potential Area (ha)	Cultivated Area (ha)	Yield (t/ha)	Production (t)	Equivalent to Milled Rice (t)
Aileu	13,000	1,550	2.13	3,302	776	560	2.95	1,652	991
Ainaro	9,000	1,280	2.16	2,765	6,076	415	3.08	1,278	767
Baucau	16,000	8,104	3.39	27,473	14,423	10,000	3.31	33,100	19,860
Bobonaro	25,477	1,795	3.61	6,480	7,662	3,000	3.06	9,180	5,508
Covalima	56,113	4,782	1.32	6,312	5,615	3,500	2.80	9,800	5,880
Dili	3,200	1,672	2.31	3,862	150	25	3.43	86	51
Ermera	5,000	1,275	2.86	3,647	2,419	1,000	3.28	3,280	1,968
Lautem	20,000	4,657	3.85	17,929	3,864	910	3.79	3,449	2,069
Liquisa	5,000	2,747	2.6	7,141	1,866	250	3.04	760	456
Manatuto	19,896	2,439	3.36	8,196	12,731	3,500	4.25	14,875	8,925
Manufahi	10,000	1,323	3.78	5,002	9,942	800	2.54	2,032	1,219
Viqueque	19,435	2,319	2.72	6,308	5,705	2,500	1.78	4,450	2,670
Oecusse	12,500	9,345	2.91	27,192	9,793	3,233	3.33	10,766	6,460
<b>Total</b>	<b>214,621</b>	<b>43,288</b>	<b>2.90</b>	<b>125,609</b>	<b>81,022</b>	<b>29,693</b>	<b>3.19</b>	<b>94,708</b>	<b>56,825</b>

## Factors Affecting Production

### Agro-meteorology

- During the month of January and February 2015, most municipalities received favourable rainfall, although intermittent rain observed in the coastal areas. In February farmers in the upland areas of the Municipalities of Ermera, Liquisa and Bobonaro commenced the harvest of the 2014/15 cropping season maize.
- The VHI informs the overall vegetation conditions and indicates vegetation stress level particularly early indication on drought in the country. 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).
- During the month of January 2015, most coastal areas indicated lower VHI from 0.15 to 0.25, such as the Municipalities of Baucau, Bobonaro, Viqueque and coastal area of Manatuto, this means that these areas experienced water stress, while the opposite is true in the Municipalities of Liquiça, Aileu, Manufahi, Covalima, Lautem and Oecusse with VHI less than 0.55.
- Figure 2 shows that during the month of February 2015 the vegetation condition in most areas was better compared to the month of January. Most areas indicated having a Vegetation Health Index (VHI) more than 0.65 to 0.85 (dark green colour) and in some areas was above 0.95 (very dark green) during the month of March, higher VHI compared to the same month in 2014. The areas that received VHI from 0.55 to above 0.95 were the Municipalities of Ermera, Liquisa, Bobonaro, Covalima, Oecusse, Lautem, Viqueque, Manatuto, Aileu and Ainaro. While, the coastal areas of the Municipalities of Viqueque, Manatuto, Baucau and Dili indicated a VHI lower than 0.55. Therefore, possible lower yield for the cropping season 2014/15.

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

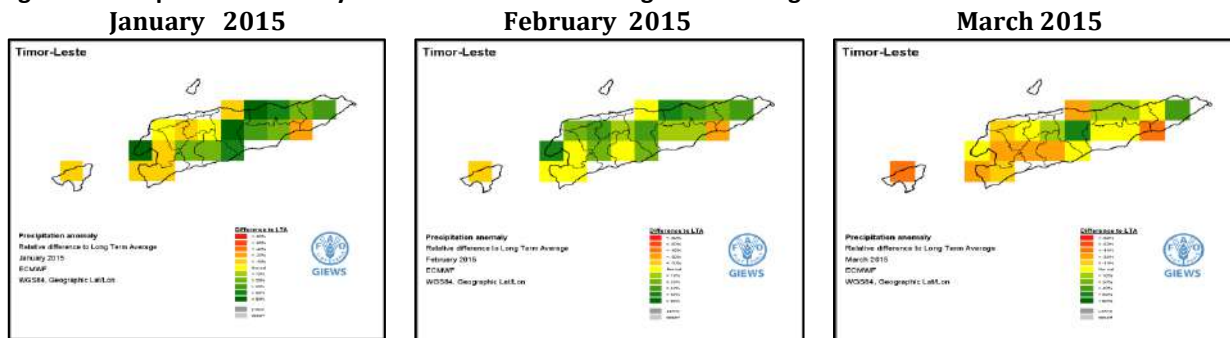
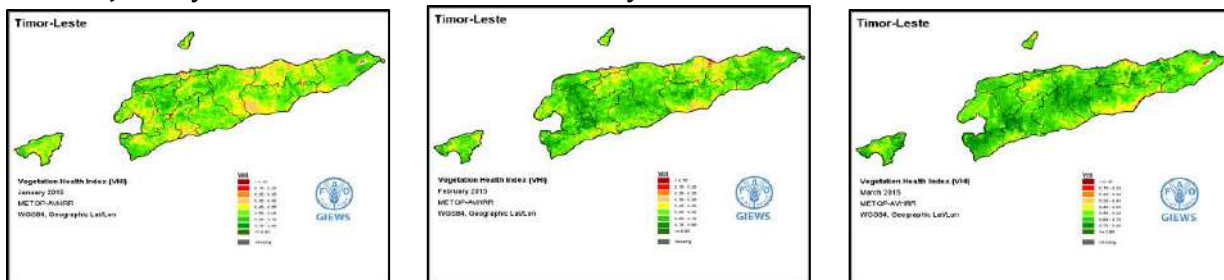


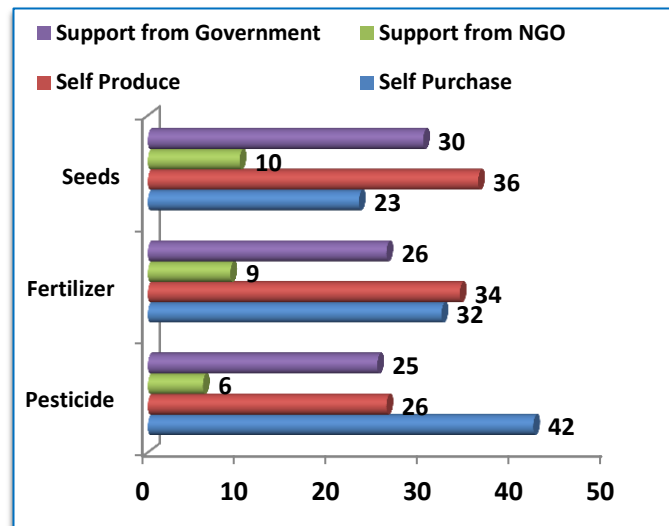
Figure 2: Vegetation Health Index (VHI) during the month of January to March 2015



## Means of Production and Input

- The government through the Ministry of Agriculture and Fisheries (MAF) continue to provide farm inputs subsidies such as seeds, fertilizers and pesticides, with an objective of increasing the productivity for maize and rice. These inputs were distributed in addition to the free plowing program (programa fila rai gratuita). During the production season of 2014/15 MAF planned to cover 17,000 hectares farms in 12 municipalities (excluding the autonomous Oecusse). On the other hand, farmers also accessed free seeds from NGOs and trained on techniques to produce organic fertilizers and pesticides.
- During this quarter, the Suco Level Food Security Monitoring System (SLMS) reported that an average of 27% of the farmers received the government subsidies. The SLMS report also shows that 59% of the farmers produced and purchased the seeds, 66% produced and purchased the fertilizer, while 68% produced and purchased the pesticides.

Figure 3: Farmers Access to inputs, by sources during the period of quarter 1, 2015



Source: SLMS-MAF

## FOOD SUPPLY AND DEMAND SITUATION

### National Cereal Balance Sheet for 2015/16 marketing year (April/March)

This National Cereal Balance for marketing year of 2015/16 reflects the rice and maize forecast for the production year 2015. The cereal forecast for marketing year 2015/16 (April/March) indicated a deficit of about 75,339 tonnes for rice and 291 tonnes for maize.

Part of this deficit is expected to be covered by rice stocks or new imports, otherwise, some households are forced to reduce portion of their meals or consume the saved seeds. Part of the deficits could also be covered by other food crops such as roots and tubers.

Table 3: National Food Balance Sheet Marketing Year 2015/16 (April/March)

	Rice (T)	Maize(T)
Domestic Availability	68,575	125,609
Opening stocks 1/	11,750	
Early Forecast production from the main and second season 2/	56,825	125,609
Total utilization	143,914	125,900
Food use 3/	131,979	83,421
Seed requirement 4/	570	1,358
Feed use 5/		16,000
Post-harvest losses 6/	11,365	25,122
Targeted closing stocks 7/		
Deficit/Surplus	-75,339	-291
Import Requirements		
Anticipated commercial Imports	75,339	
Uncovered deficit/ to be covered by other crops/food		291

Source: NIEWS-MAF

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

- only government stocks (data from MCIE) as of March 2015
- Milling rate of paddy to rice is estimated at 60 percent
- Based on 106 kg per year/person of rice consumption and 67 kg per year/person of maize and a population of 1,245,085 (Source:DNE Monografiku Projeksaun Populasaun Vol.8)
- According to the Directorate National of Agriculture and Horticulture (DNAH) of MAF, standard use of seed for: rice 25-35 kg/ha, maize 40-50 kg/ha
- 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 feed. Only chicken feed is used for this calculation, based on MAF's standard consumption rate.
- DNAH/MAF estimates 15-20% post-harvest losses in both rice and maize
- It may include contingency stock.

## Cereal Imports

Table 4: Rice imports during marketing year

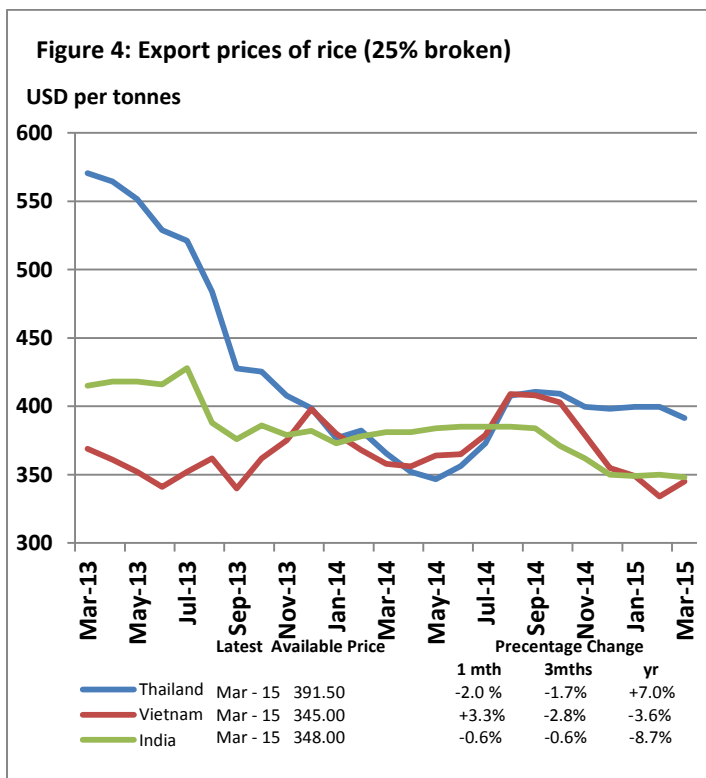
	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
<b>2012/2013</b>	134	331	3,856	1	1	500	10,607	0.11	3,042	3	251	51	<b>18,777</b>
<b>2013/2014</b>	3,010	-	1,999	9,754	487	6,905	2,029	6	2,475	8,307	845	10,047	<b>45,864</b>
<b>2014/2015</b>	8,954	640	131	5,529	28,810	14,695	3,710	5,925	131,237	4,606	4,675	5,857	<b>214,769</b>

Source: Alfandega-MoF

- The rice importation forecast is about 75,339 tonnes for the marketing year 2015/16, although in 2014/15, a total of 214,769 tonnes of rice was imported by the private sector, more than the estimated total deficits of 92,813 tones (rice 75,406 tones and 17,407 tonnes of maize) in 2014/15, therefore, possible huge stocks that could cover cereal deficits for the marketing year 2015/16.
- There was no rice import from the public sector in 2014/15 and during the first quarter of 2015, however, as shown in Table 4 there was huge imports from the private sector in 2014/15 that could negatively affect the domestic rice production and disadvantage the local rice to compete in the market.
- The Ministry of Commerce, Industry and Environment (MCIE) confirmed an opening rice stock of 11,750 tonnes for the marketing year 2015/16.
- The MCIE also reported that 2,232 tonnes of rice from the month of January to March 2015 was distributed to retailers at the sub-national and national markets (1,923 tonnes), support to the school feeding program (247 tonnes) and humanitarian support (62 tonnes). At the same time, the MCIE local food acquisition program also distributed 155 tonnes of local rice and 1.43 tonnes of local red beans for the same purpose.

## Food Price

### Cereal Export Price



Source: FAO-GIEWS

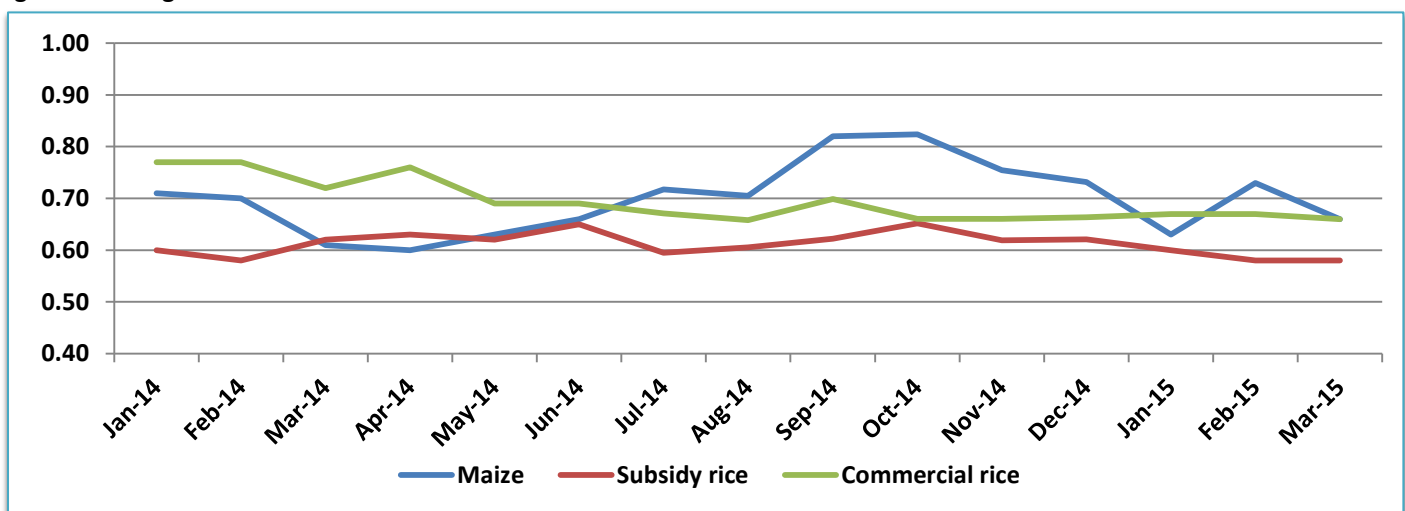
During the month of March 2015, the FAO Global Food Monitor reported that in ASIA region, generally the rice price remain stable due to the availability of rice from the harvest of the 2014 second crop which is ongoing in many countries. However in Thailand rice price decreased due to high government stock and high demand on export. While in other exporting rice countries such as Vietnam and China, the government food acquisition program prevented price reduction.

The FAO Global Food Monitor also reported that the price of rice at the neighboring country of Indonesia declined compared to the previous months, due to new harvest from the 2014/15 main cropping season that entered the market.

### Domestic Price

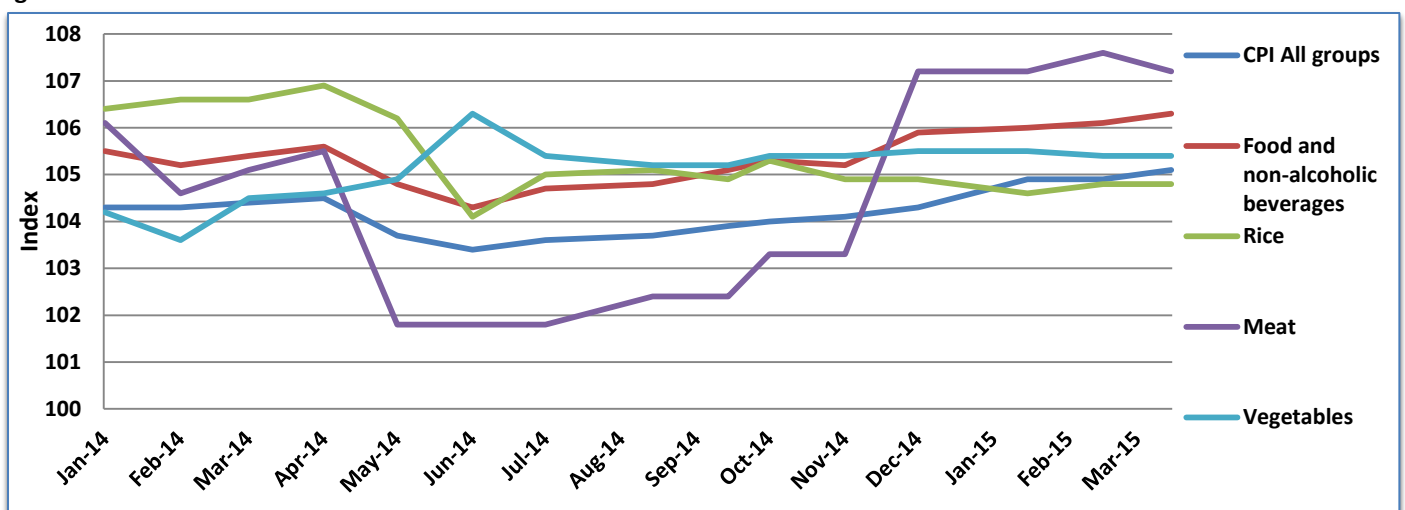
- The price of the subsidized price decreased during the first quarter of 2015 with an average price stood at USD 0.59/kg lower compared to the USD 0.63/kg in the last quarter of 2014. Although the average price of the commercial rice slightly increased from USD 0.66/kg to 0.67/kg this quarter.
- The average price for maize significantly decreased to USD 0.63/kg during the month of January, although in February the price increased back to USD 0.73/kg but subsequently decreased to USD 0.66/kg in March. Maize price was pressured by new supplies harvest of the 2014/15 cropping season maize particularly in the Municipalities of Ermera, Liquisa and Manatuto.
- Particularly in January when the first crop maize is about to be harvested, the Suco Level Food Security Monitoring System (SLMS) reported that 11 upland remote villages (with fewer access to market) belonging to seven Municipalities of Baucau, Covalima, Manufahi, Bobonaro, Lautem, Liquisa and Dili recorded higher prices on maize and rice ranges from USD 1.50/kg to USD 3.00/kg for maize, USD 0.70/kg to USD 1.00/kg for subsidized rice and USD 0.84/kg to USD 1.20/kg for commercial rice.
- The month-on-month inflation in January and February 2015 stood at 0.6% respectively, while in March 2015 it stood at 0.1%, with the year-on-year inflation stood at 0.7%. The most significant contributors to both the monthly and annual inflation came from the education (+18.6%) due to the change on the registration fees in January 2015, tobacco (+3.2%), food and non-alcoholic beverages (+0.9%). However, a significant price fall was recorded on the transportation group. In fact, in March, the transportation group recorded a deflation of -6.3%, as well as the operational of personal transport equipment (-14.3%).

Figure 5: Average retail Price of Maize and Rice



Source: NIEWS-SLMS-MAF

Figure 6: Price Index

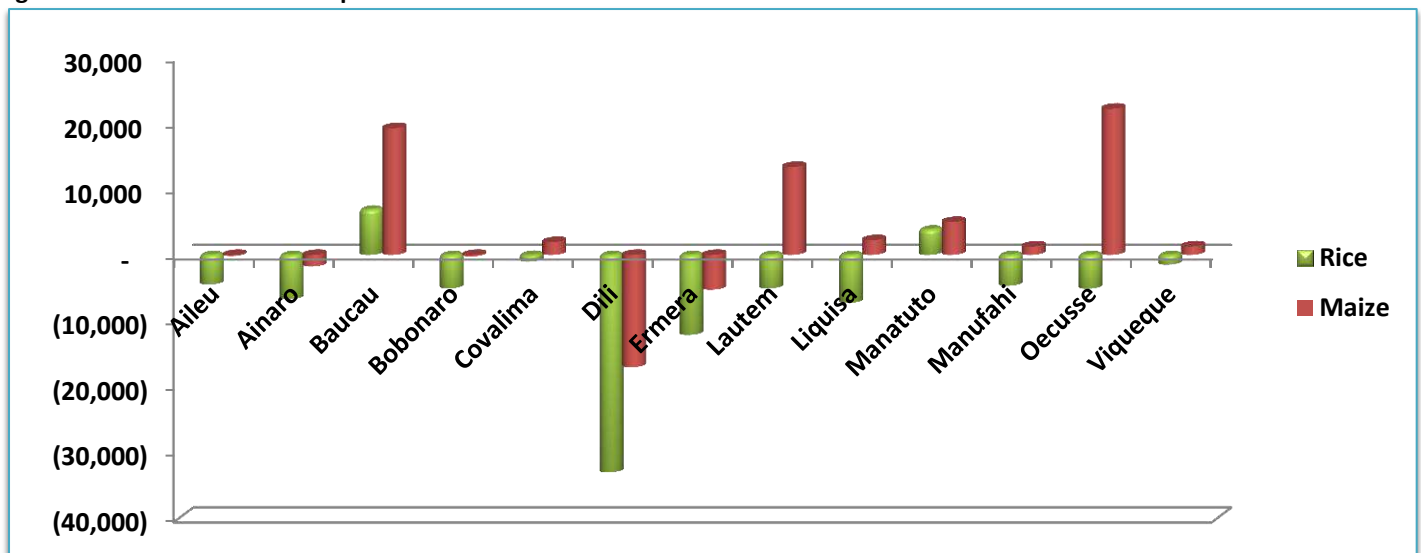


Source: DNE-MF

## Household Food Security and Vulnerability Analysis

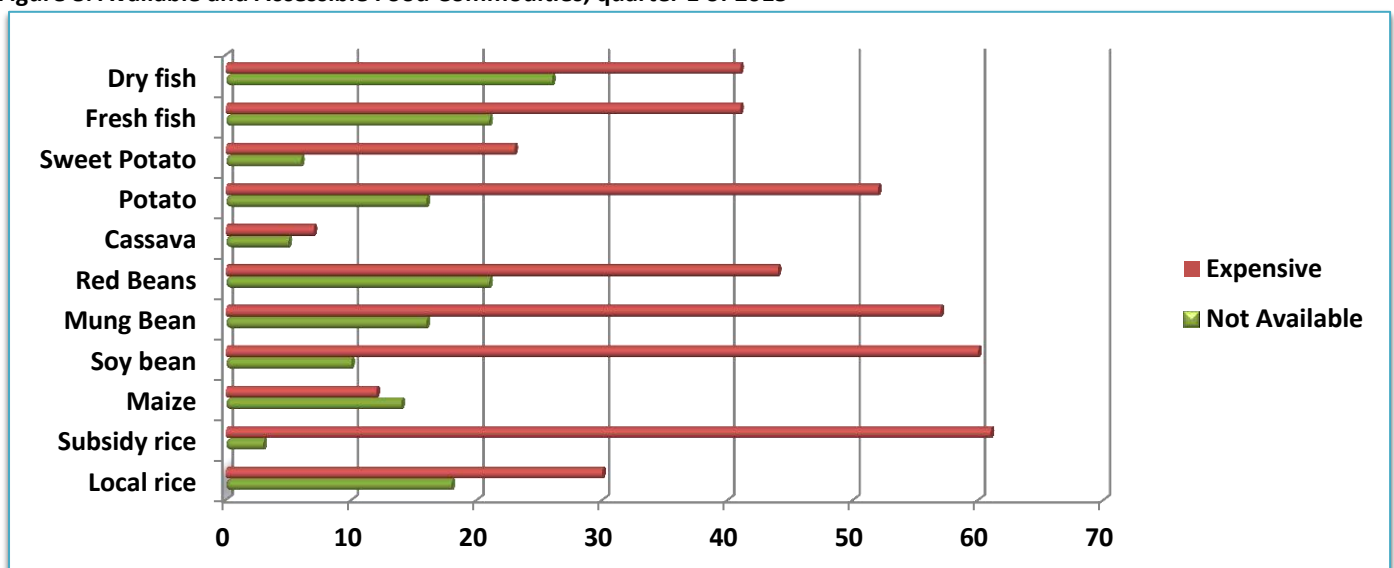
- The MAF forecasted possible maize and rice surplus in the Municipalities of Baucau and Manatuto in 2015/16, while anticipated high deficits in the Municipalities of Ermera, Ainaro and off grid areas in Dili, due to a lower production forecast in 2015. Although, some Municipalities such as Oecusse, Lautem and Covalima are foreseen to have deficits on rice but with surplus on maize.
- The Ministry of Social Solidarity (MSS) distributed 95.63 tonnes of rice from January to March 2015 to food insecure households, disaster-affected families and to institutions like orphanages and church. In addition, 217 tonnes of rice (62 tonnes imported rice and 155 tonnes of local rice from the local food acquisition program) were distributed by the Ministry of Commerce, Industry and Environment (MCIE) for the same purpose.
- Generally, the food supply situation across the country has been reported normal with the maize harvest of the 2014/15 in February. However, the SLMS reported that the price of subsidized rice, soya beans, mung beans and potato remains high, while upland remote villages reported that access to fish and local rice was limited. In April, the maize harvest will be completed and in May paddy harvest will begin. The food situation is expected to improve starting in June with the bulk of 2015 maize and rice harvests entering the markets.

Figure 7: Cereal Production Surplus and Deficit Forecast for Maize and Rice in 2015



Source: SLMS-MAF

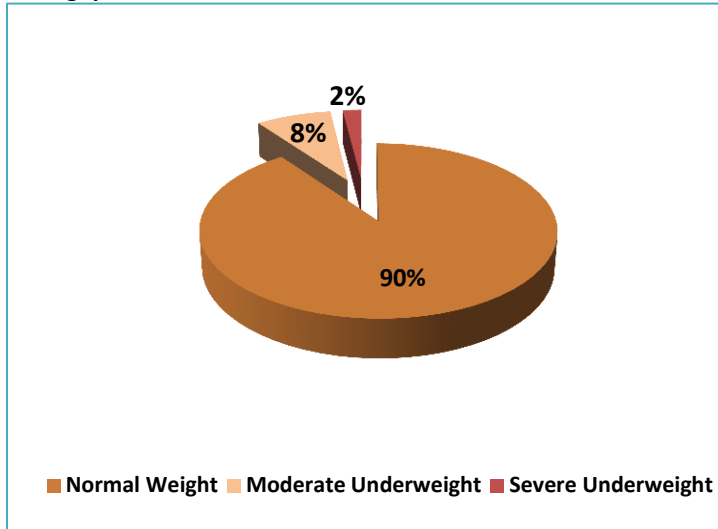
Figure 8: Available and Accessible Food Commodities, quarter 1 of 2015



Source: SLMS-MAF

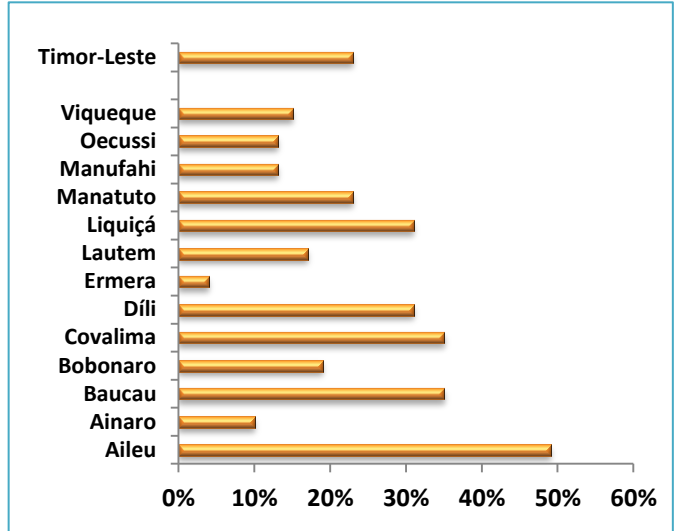
## Nutrition and Health

Figure 9: Nutritional Status (Underweight) for Children under 5 during quarter 1 of 2015



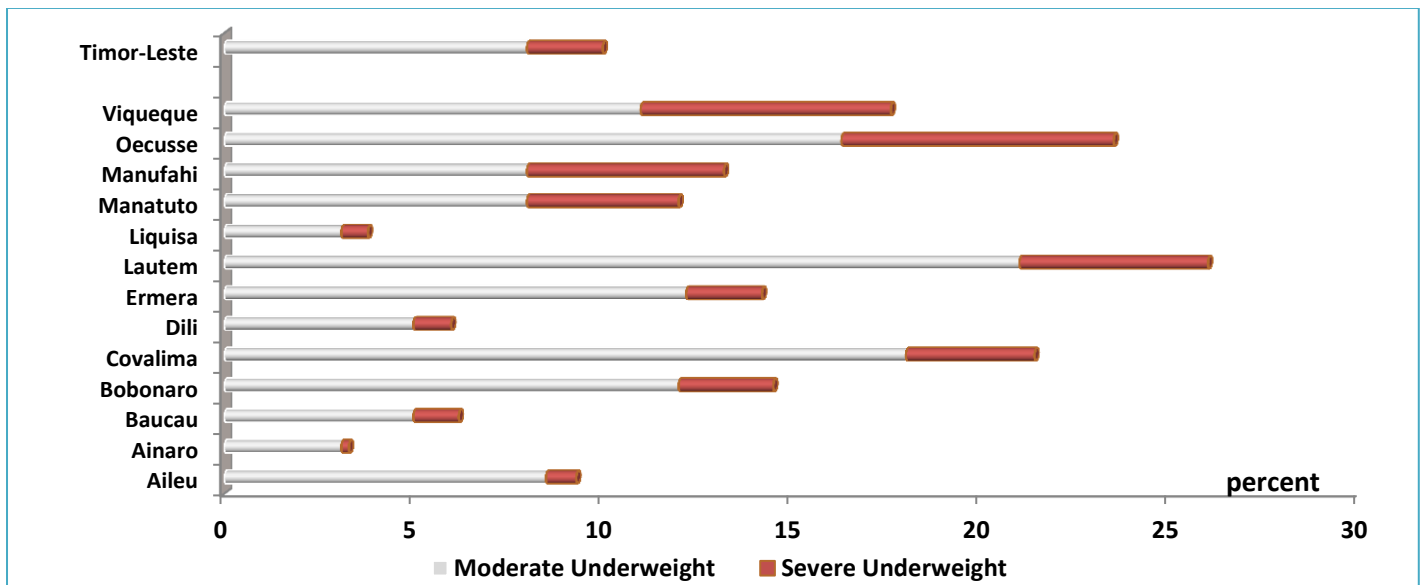
Source: H-MIS- MoH

Figure 10: Average Percentage of Children weighted every month during quarter 1 of 2015, by Municipality



- During the first quarter of 2015, only 23 percent of children were brought by parents to the public health facilities. Nutrition information of children brought to private health facilities is not yet reflected in the Health Monitoring Information System (HMIS). Therefore, the data from the HMIS is partial given that only children, who have visited the government health facilities, were assessed.
- The HMIS recorded high percentage of children attendance and weighted in the Municipalities of Aileu (49%), Baucau (35%), Covalima (35%), Dili (31%) and Liquisa (31%) and recorded a decrease of the percentage of severe and moderate underweight children from 17% (first quarter of 2014) to 10% during the first quarter of 2015. The percentage of children having normal weight also increased from 83% (quarter 1 of 2014) to 90% during the first quarter of 2015. The percentage of children that have utilized the health facilities also increased from 18% (Q4 of 2014) to 23% (Q1 of 2015).
- High percentage of malnutrition was recorded in the Municipalities of Lautem (26%), Oecusse (23%), Covalima (21%) and Viqueque (17%). At the same time, high percentage of severely underweight was recorded in the Municipalities of Oecusse (7.2%), Viqueque (6%), Manufahi (5.2%) and Lautem (5%).

Figure 11: Average Percentage of Moderate and Severe Underweight Children under 5 during Quarter 1 in 2015, by Municipality



Source : H-MIS- MoH