



## **Directorate of Economic and Social Analysis**

# Preliminary report of economic and social activities January to October 2017<sup>a</sup>

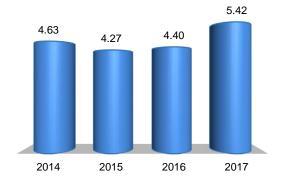
**Summary**. The Monthly Index of Economic Activity (IMAE, for its acronym in SPANISH), in its original series, grew 5.42% accumulated from January to October 2017. Transportation, storage and communications continued leading the economic activity of the country. Meanwhile, the construction sector registered, through the value of permits in the nine main municipalities of the country, an excess of B/.176.6 million or 10.8% more than the previous year. Local wholesale and retail trade activity continued to grow increasing sales of diesel fuel (10.8%), gasoline (5.2%) and liquefied gas (4.1%) consumed by households, companies and the public sector. The Assets of the National Banking System totaled B/.99,681.5 million, 0.2% more. The national inflation rate was lower than one percent (0.88%), remaining stable with the same value as in the third quarter.

## I. Economic performance

## 1.1 Monthly Index of Economic Activity (IMAE)

In its original series grew 5.42% accumulated from January to October 2017. The result represents an increase of 1.02 percentage points compared to the same period of 2016 (4.40%) and continues to exceed the performance for the same period of the three previous years.

Growth of IMAE: January to October 2014 – 2017 (Percent)



Source: National Statistics and Census Institute.

Transportation, storage and communications continued leading the economic activity of the country due to the record performance of the Panama Canal

mainly attributed to the expansion; as well as the improvement in global and regional trade because of the expanded route and related aspects such as the use of economies of scale and the efficiency of its operation.

## 1.2 Transportation, storage and communications

This activity continued with good performance. 11,401 vessels crossed through the Panama Canal (5.8% more). In addition, toll revenues were B/.1,908.5 million, B/.302.8 million more or 18.9%, attributed to a lot more net tonnage crossing (25.0% more) and cargo volume (19.5% more).

In October, the first cruise of the season went through the canal, with a maximum capacity of 3,600 passengers; 236 cruises are expected this season between October 2017 and April 2018 and 11 of them will cross the Panama Canal for the first time, according to the corresponding Authority.

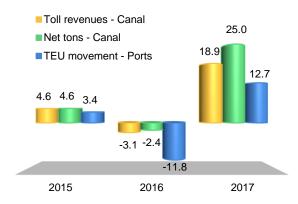
The National Port System moved 73.1 million metric tons (16.8% more), boosted by its cargo mix since the containerized system increased 14.2% and represents 52.6% of the entire system; bulk cargo increased 20.0% and general cargo 8.5% driven by world trade that has grown more than expected, according to the World Bank, mainly in China and North America.

<sup>&</sup>lt;sup>a</sup> Unless otherwise stated the variations indicated in this report are estimated in relation to the same period of the previous year.





# Percentage change of traffic and cargo indicators of the Panama Canal and the national port system: January to October: 2015 – 2017



Source: National Statistics and Census Institute.

On the air transport side, 7.7 million people or 10.4% more were transported, both embarkation (10.3%) and landings (10.4%), through the Tocumen International Airport. 45.0% came from South America, 28.3% from North America, 14.1% from the Caribbean, 9.5% from Central America and 3.1% from Europe.

#### 1.3 Construction

The cost of the constructions projects registered at the main municipalities exceeded B/.176.6 million or 10.8% better than the year before. The districts with the highest growth were David (33.5%), Arraiján (23.0%) and Chitré (22.3%), the first because of commercial constructions and the other two by residential constructions. There was a greater number of buildings (16.3%) and of square meters (1.2%) in the process of being built, according to the records of processed permits for construction.

Number of projects, cost and construction areas: January to October 2013 - 2017<sup>a/</sup>

Year	Number of Projects	Cost (million of balboas)	Area (thousad of square me- ters)
2013	10,849	1,522.7	3,178.8
2014	11,214	1,669.5	3,674.2
2015	11,255	1,812.0	3,826.4
2016 <sup>b/</sup>	9,448	1,632.3	3,639.0
2017 <sup>b/</sup>	10,984	1,808.6	3,683.5

a<sup>J</sup> Corresponds to solicitations for construction permits in the following districts: Aguadulce, Arraiján, Colón, Chitré, David, La Chorrera, Panamá, San Miguelito and Santiago.
b<sup>J</sup> Exept San Miguelito's district.

Source: National Statistics and Census Institute.

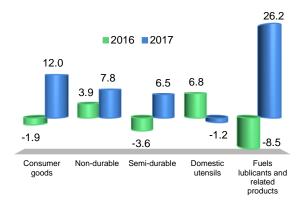
In October, the Municipal Engineering Directorate of the City of San Miguelito temporarily suspended construction permits (new and under construction) in Condado del Rey, at the the Amelia Denis de Icaza neghiborhood. The measure was taken after several complaints about constructions that take place in the area and that have caused problems for the residents (floods, lack of drinking water and roads, mainly).

#### 1.4 Wholesale and retail trade

The local wholesale and retail commercial activity continued to grow. Wholesale trade exhibited more dynamism. In this regard, purchases abroad for subsequent distribution in the country, measured by the value of imports, increased by B/.833.3 million or 8.7% accumulated from January to October 2017. By segments, consumer goods imports registered the highest growth rate (12.0%), especially fuels, followed by raw materials (7.8% more).

Percentage change in the value of imports of consumer goods, by group:

January to October 2016 and 2017



Source: National Statistics and Census Institute.

Specifically in the month of October, compared to the same month of the previous year, the value of imports increased 15.2%, being the second highest increase rate so far during 2017, so merchants increased their demand for various types of goods to have enough inventory for the end of the year holidays

On the other hand, based on indicators of retail trade, the increase in sales of diesel (10.8%), gasoline (5.2%) and liquefied gas (4.1%) demanded by households, companies and the public sector, stood out. Meanwhile sales of new cars decreased 13.3%, in the accumulated period from January to October, thus continuing the trend observed throughout the year reflecting a more cautious consumption by this





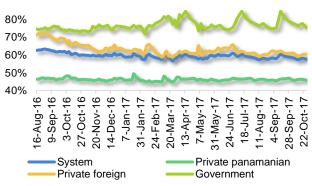
type of goods and the period of adjustment in sales that the sector is going through, given the high levels of growth in the last 5 years.

Trade at the Colon Free Zone fell between January and October, re-exports or sales fell by B/.127.3 million or 1.5%, mainly due to the drops in shipments to Puerto Rico, as a consequence of experienced tropical hurricanes (B/.200.4 million), Venezuela (B/.113.6 million) and Colombia (B/.113.2 million), the reasons for the behavior in these last two markets are the repeated economic and commercial problems.

## 1.5 Banking

The Assets of the National Banking System totaled B/.99,681.5 million, growing 0.2% compared with last year. Domestic deposits grew 3.6%; the loan portfolio 1.0% influenced by the behavior of local deposits (6.2% more), and net profits grew 13.5%.

Liquidity index of the National Banking System, by month and day of information and by origin of the bank: Years 2017 – 2017.



Source: Superintendence of Banks of Panama.

On the other hand, the liquidity index of the National Banking System exceeded the established levels (30.0%), until October it was 59.1%; standing out the one corresponding to the government banks (75.8%), followed by the private foreign banks (62.8%) and the Panamanian private banks (45.7%).

## 1.6 Stock Exchange

The Stock Exchange of Panama has negotiated in financial instruments B/.4,335.5 million, of which 53.1% or B/.2,301.4 million were in the primary market, 34.4% or B/.1,491 in the secondary market and 12.5% or B./543.2 million in buybacks. Last year a total of B/.6,713.5 million wwere negotiated (which surpassed the record registered in 2012) where the biggest part corresponded to the bonds sold by

Tocumen S.A. for the financing of the expansion projects of its terminals.

The amount of instruments negotiated during 2017 was lower, but the number of transactions increased; from January to October 6,490 transactions were made; 6,306 in the previous year. Likewise, the value of transactions in capital instruments (B/.355.1 million) exceeded that of last year (B/.95.4 million); also the number of traded shares (B/.9.4 million in 2017) was higher than in 2016 (B/.2.6 million).

The activity at the stock market was reflected in the stock index which stood at 439.07 points, higher than the previous month, 433.18.

Transactions carried out at the Stock Exchange according to the market and stock market results:

January to October 2015-2017.

Transaction Type	2015	2016	2017
Transactions by market type in millions of Balboas Primary Secondary Buybacks	4,464.7 2,998.1 1,313.9 152.7	6,713.4 3,592.0 2,026.3 1,095.1	4,335.6 2,301.4 1,491.0 543.2
Number of transactions	5,518.0	6,306.0	6,490.0
Stock Market: Value of transactions, millions of balboas	142.0	95.4	355.1
Number of shares, thousands of units	5,022.5	2,522.0	9,482.3

Source: Stock Exchange of Panama.

### 1.7 Insurance

Panama's insurance companies registered B/.1,187.9 million from January to October as premium income, which represents an increase of 3.8% compared to 2016; automobile accounted for (B/.234.9 million), health (B/.239.0 million) and life group (B/.174.3 million). Claims continued to rise, this time by B/.105.5 million (21.9%).





#### Premium income and claims payments: January to October 2013 – 2017

(Millions of balboas)



Source: Superintendence of Insurance.

## 1.8 Manufacturing Industries

The manufacturing industry continued with a positive performance mainly in the areas associated with food and beverages. Both, the production of natural milk for food processing (2.1%) and the production of alcoholic beverages (8.0%) increased. The increase in alcoholic beverages mainly due to beer (7.5%), which represents more than 90% of the total production of these drinks.

Percentage change of the quantity produced and exported of some manufacturing goods:

January to October 2015 - 2017

Productos	2015	2016	2017
Natural milk for food processing Pausterized milk Chicken meat Pork slaughter (heads) Alcoholic beverages Export of fish flour and fish oil Export of beef meat	-1.7 8.6 7.1 5.1 -3.8 -47.2	-1.0 3.3 6.3 8.5 2.4 -4.1	2.1 2.5 4.4 2.3 8.0 83.2 29.4

Source: National Statistics and Census Institute.

Exports of fishmeal and fish oil (83.2%) and beef meat (29.4%) stood out. Beef production for local consumption continues to be depressed (2.6%), as a result of the climatic problems that affect it.

### 1.9 Agriculture and livestock

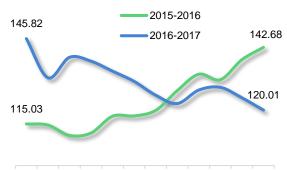
The agricultural activity continued with optimistic performance for the last months of the year, in terms of livestock production and exports, the latter grew 3.2% in total gross weight.

Slaughter of pigs continued to increase (2.3%), as did the production of chicken meat (4.4%), reflected in higher exports of frozen porcine edible remains (115.1 additional metric tons) and poultry (9.5%)), Hong Kong being the main consumer. Timber exports also increased (61.2% gross weight), mainly raw wood (51.3%) and sawn wood (134.2%). And more animal and vegetable fats and oils were exported (37.2%) due to the greater shipment of crude palm oil (60.5%), which affected the additional quantities of exported oil seeds and fruits (especially palm fruits) that added 9,053.5 metric tons sold to Costa Rica.

In spite of a greater export of national agricultural and livestock production, the income generated fell 2.0%, mainly as a result of the fall in the international prices of coffee and cocoa.

#### Index price of coffee, per month: November 2016 to October 2017

(Cents of dollar per pound)



Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct

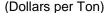
Source: Coffee International Organization.

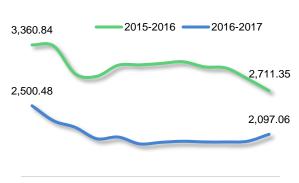
Data from the International Coffee Organization (ICO, for its acronym in English) showed a fall in the composite indicative price (15.9% from October 2016 to the same month of 2017). In its monthly report on the coffee market the Organization indicated that in spite of the low global exports registered in October 2017, the accumulated ones of the year (November 2016 - October 2017) increased 2.4% compared to the same period one year back.





#### International Price of Cocoa, per month: November 2016 to October 2017





Nov Dic Ene Feb Mar Abr May Jun Jul Ago Sep Oct

Source: The International Cocoa Organization (ICCO).

While the International Organization of Cocoa (ICCO, for its acronym in English) accounted for a fall of 22.7% in the international price of this product, from October 2016 to same month of 2017. It is worth indicating that throughout 2017 the price levels were lower compared to the previous year. This is mainly due to overproduction in exporting countries such as Ivory Coast and Ghana in Africa that constituted the largest surplus in six years.

## 1.10 Fishing

Fishing production continued to decline with lower catch of marine species in national ports and decreased exports to the international market (3.2% of gross weight).

With the exception of fillets and other fishing meats (39.7%) and crustaceans (3.5%) that saw their exports increase, the rest of the fish categories decreased: fresh or chilled fish (5.6% gross weight); frozen (15.9%); dried fish, salted or in brine (44.3%); mollusks (84.7%) and aquatic invertebrates (22.6%).

Main fishery exports, by tariff category: January to October 2016 and 2017

	2016		2017	
Tariff Category	Gross weight (metric tons)	FOB Value (mil- lion of bal- boas)	Gross weight (metric tons)	FOB Value (mil- lion of bal- boas)
Total	33,120.0	112,736.3	30,035.5	111,100.1
Fish	21,731.4 11,439.4 9,287.8 999.4 4.9	57,502.4 34,933.4 19,188.0 3,322.3 58.7	20,011.7 10,800.3 7,812.1 1,396.6	56,983.3 34,952.3 15,460.4 6,492.7
Crustacean Moluscs Aquatic Inverte- brates	9,237.3 1,935.3 216.0	53,423.5 1,498.3 312.0	9,560.8 295.7 167.2	53,798.7 102.1 216.0

Source: National Statistics and Census Institute.

The number of marine species unloaded and received at the ports system was 31.9% lower than last year, mainly in the ports of Vacamonte (41.4%), Panama (6.1%) and Mensabé (36.8%). This was due to weather conditions that altered the habitat of marine species and push them away from the coastal areas.

## II. International Economic Environment

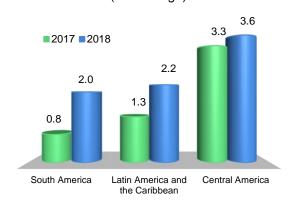
The world economy will register a growth rate of 2.9% at the end of 2017, a figure higher than the 2.4% reached in the previous year, according to the Economic Commission for Latin America and the Caribbean (ECLAC) in its publication Preliminary Balance Report of the Economies of Latin America and the Caribbean of December 2017. It also estimates that growth will be a common denominator in 2017 in both developed economies (2.1%) and emerging economies (4.5%) compared to 1.6% and 4.0% during 2016, respectively, and projected that by 2018 the growth of the world economy will be around 3.0%.





#### Projection of Growth of the Gross Domestic Product, for the Latin American region: Years 2017 and 2018

#### (Percentage)



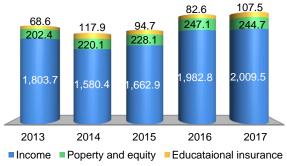
Source: Economic Commission for Latin America and the Caribbean.

Economic activity in the Latin American region is positive, both in domestic demand as well as in exports. South America is facing significant growth after 2 consecutive years of economic contraction, with a growth projection of 2.0% for 2018. Bolivia (4.0%), Paraguay (4.0%) and Argentina (3.0%) with the best growth projections south of the Latin American continent. In Central America, Panama (5.5%), Nicaragua (5.0%) and Costa Rica (4.1%) stand out; and in the Caribbean, Dominica (7.6%), Antigua and Barbuda (5.8%) and Dominican Republic (5.1%), among others, are expected to be the countries of the region with the highest economic growth.

## Fiscal update

Central Government collection of direct taxes, by type: January to October 2013 – 2017

(In millions of balboas)



Source: National Statistics and Census Institute.

The revenues of the Central Government amounted to B/.5,723.3 million, of which B/.5,544.8 million were in cash (B/.8.5 million or 0.2% more). Direct cash taxes grew more, contributing B/.49.3 million (2.1%) to tax collection. Income tax represented 85.1% of the total collected, mainly due to withholdings on the Social Security Fund's payroll and the profits of corporations; the former provided the largest additional contribution since they increased by 24.9%. The debt of the Non-Financial Public Sector amounted to B/.23,418.7 million.

## IV. Cost of Living

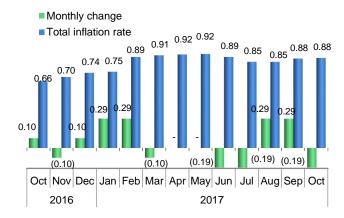
#### 4.1 Inflation

From January to October the national inflation rate was 0.88%, remaining the same as the one registered in the third quarter of 2017. In the districts of Panama and San Miguelito it was 0.34% and in the urban rest of the country was 1.1%, higher mainly due to the increase experienced in the Transportation segment (3.7%, while in Panama and San Miguellito was 1.5%); a year earlier they were 0.38% and 0.65%, respectively.

Monthly change of the Price index paid by the local consumer and national inflation rate, by month:

Years 2016 and 2017

#### (Percent)



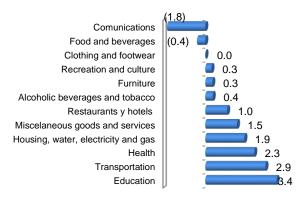
Source: National Statistics and Census Institute and Ministry of Economics and Finance.

Of the 12 groups of items and services of the national consumer price index (CPI) the Communications Unit experienced the most significant drop, with a lower price of telephone equipment (6.4%); followed by Food and non-alcoholic beverages (the one with the highest weight in the IPC structure), mainly because oils and fats (3.0%), meats (1.9%) and fruits (1.3%), cost less.





# Percentage change of the national price level, according to group of items and services: January to October of 2017



Source: Ministry of Economics and Finance.

In October, the national urban Consumer Price Index (CPI) was 104.5, decreasing 0.19% with respect to the previous month (104.7). There were more groups of goods and services cheaper (6 of 12), namely: Transportation (0.66%), Food and non-alcoholic beverages (0.39%), Furniture, household items and for the ordinary conservation of household (0.29%), clothing and footwear (0.10%), recreation and culture (0.10%) and alcoholic beverages and tobacco (0.09%). Communications and Education did not show any change; other goods and services increased.

#### 4.2 Family food basket

The average caloric cost of the basic family food basket at the districts of Panama and San Miguelito, from January to October 2017, was B/.305.26, experiencing a lower cost compared to the price on the previous year (B/.2.15 or 0.70% less), resulting in cheaper foodstuff groups like: Meats, Fats, Cereals, Eggs and Vegetables. In the rest of the country, the average cost of the basket was B/.280.12, B/.0.42 or 0.15% less; consumers could buy at lower cost: fats, meats and eggs.

## V. Social Update

### **5.1 Enployment Contracts**

Up to October 374,047 recruitment contracts were registered. In the regional directorates of the Ministry of Labor and Labor Development the increase in hiring was 10,054 or 7.9% with respect to the previous year, standing at 137,172 entries. Those that presented the greatest increases, in absolute terms, were: Veraguas (3,578 contracts), Chiriquí (2,082) and Minera Panamá Project (1,911); in the first two

the main increases occurred in contracts for specific assignments (2,949 and 790 additional contracts, respectively), with the rehabilitation and expansion work being carried out on four lanes of the Pan-American Highway Santiago - David (capital districts of these two provinces). This work of road infrastructure, as well as the generation of employment in the rest of the regions in other economic activities, has compensated for the lower registration rate in the central offices of the city of Panama, which stood at 236.875 contracts.

Number of registered recruitment contracts, by type: January to October 2015 – 2017 (P)

Type of contract	2015	2016	2017 (P)
Total	<u>378,570</u>	<u>375,536</u>	374,047
Fixed time hire Unlimited time Fixed time pro-	147,929 92,963	148,865 89,812	156,564 85,956
jects	137,678	136,859	131,527

Source: Ministry of Work and Social Development.

#### 5.2 Education

#### Job training

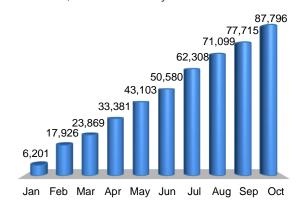
Regarding the improvement of labor training of the country's human capital, up to October 2017, 87,796 have benefited from the courses offered by the National Institute of Professional Training and Training for Human Development (INADEH). More women (55.7%) than men (44.3%) attended training. With respect to the previous year, there were 5,486 more people. They graduated more from the courses of Public Management and Governance (88.9%) and of Industrial Safety and Occupational Hygiene (84.0%). Between 5,943 and 11,728 people enrolled into training each month.

In October, INADEH and ENSA launched the Low Voltage Electrician Program, with a total of 115 participants (81 in Tocumen and 34 in Colón). The porgram was aimed at young people who finished Industrial Electricity at high school level. After five years of partnership with ENSA, nearly 600 participants have graduated from the given courses; according to INADEH an approximate of 40.0% are inserted in the labor market.





#### Number of people enrolled in the programs of IN-ADEH, accumulated by month: Year 2017



Source: National Institute of Vocational Training and Human Development.

Also, INADEH has an agreement with Panama International Terminal (PSA) to train first-class port operators in Panama Pacific Port Simulation Center.

#### **Educational assistance**

As of October 2017, 693,267 students have benefited with scholarships from the different programs and subprograms executed by the Institute for the Training and Use of Human Resources (IFARHU). The disbursement was for B/.256.7 million. The investment made in the students is non-refundable and the funds are an investment from the central government budget, foreign governments, international organizations and private national and / or foreign individuals.

More students have joined scholarship programs. Between October 2016 and 2017 there were 46,263 more, an additional increase of B/.19.3 million to the budget.

Scholarships awarded to outstanding students increased by 19.8%. This is due to the fact that scholarships to general contest (5,401) and those of distinguished achiever scholarships (325 more) were awarded to more students.

The universal scholarship accounted for 76.7% of the amount allocated to scholarships, 92.9% of the scholarship holders belong to this program. Compared to 2016 there were 38,424 new students.

Number and amount of scholarships awarded by IFARHU, according to programs:
January to October 2016 and 2017

Cab alavahin	Number		Thousand of balboas	
Scholarship	2016	2017	2016	2017
Total	647,004	693267	237,403.1	<u>256,677.9</u>
Scholarships Educational	29,214	34,993	20,073.8	21,200.0
economic assistance	8,415	10,999	7,809.3	10,593.4
Economic aid	2,984	2,473	14,319.3	23,125.4
Universal aid	605,957	644,381	189,297.0	196,906.2
Other aid	434	421	5,903.8	4,852.9

Source: National Institute of Vocational Training and Human Development.

The loans or credits for training have favored 1,243 students, until October 2017, with budgetary resources of B/.13.8 million. 52.5% of the credits granted went to undergraduate studies, constituting 43.3% of the budget. The remaining loans went to master degrees (21.5% of applicants), other courses (12.3%) and technicians (11.5%).

#### Literacy project

The literacy project Move for Panama implemented by the Ministry of Social Development (MIDES) trained 1,755 people from rural and marginal urban areas in the first ten months of 2017, increasing assistance by 303 people more than the ones registered during 2016. The largest number of people trained was in the indigenous area Ngäbe Buglé (266 more people), followed in that order by the provinces of Bocas Toro (190), Chiriquí (81) and Darién (27). Most of the beneficiaries of the program lives in the Ngäbe Buglé area (31.6% of the total) and the provinces of Chiriquí (24.6%) and Bocas del Toro (18.4%). The resources allocated to this program had a budgetary execution of 84.8% of the assigned amount in 2017. In contrast, execution during 2016 was 80.4%.





Number of literate people of the Project Move for Panama, as per provinces and indigenous areas:

January to October 2016 and 2017

Provinces and indigenous areas	2016	2017(P)
Total	<u>1,452</u>	<u>1,755</u>
Provinces:		
Bocas del Toro Coclé Colón Chiriquí Darién Herrera Los Santos Panamá Panamá Este Panamá Centro San Miguelito Chepo Panamá Oeste Arraiján La Chorrera Veraguas	133 17 37 351 33 55 47 105 - 57 30 18 190 27 163 129	323 5 31 432 60 45 14 96 15 40 34 7 141 18 123 53
Indigenous areas:		
Emberá Wounaan Ngäbe Buglé	66 289	- 555

Source: Ministry of Social Development.

#### 5.3 Help for people with disabilities

From January to October the National Disability Secretariat (SENADIS) benefited 3,549 people who are in a situation of poverty and social vulnerability to strengthen their participation and promote their integration into economic and cultural life.

Number of beneficiaries and amount assigned at national level by SENADIS according to service and programs: January to October 2016 and 2017

	2016		2017	
Service and programs	Quantity	Amount (balboas)	Quantity	Amount (balboas)
Total	<u>4,173</u>	<u>665,277</u>	<u>3,549</u>	<u>571,087</u>
Certification 1/	2,776	-	2,825	-
Fami-Business.	387	306,717	355	320,398
Disability Rotational fund	73	217,466	82	206,989
Economic Subsidy	937	141,094	287	43,700

<sup>&</sup>lt;sup>1/</sup> Refers to parking permits and disability certification.

Source: National Secretariat for Disability.

The entity allocated B/.571,087, of which B/.320,398 were for the creation of 355 family businesses to insert people with disabilities into the productive system; B/.206,989 for the acquisition of technical aids (prostheses, wheelchairs, hearing aids, among others) for 82 people (9 or 12.3% more) and B/.43,700 to pay for health and education expenses of 287 people.

Also, 2,825 disability certificates and parking permits were issued (49 or 1.8% more).

#### 5.4 Fund for Housing

From January to October, the Solidarity Fund for Housing benefited 18,925 low-income people (families with monthly income of up to B/.1,200.00) with the allocation of 4,769 housing solutions that amounted to B/.44.6 million. In this period, the number of housing solutions increased in the provinces of Panama (295), Veraguas (255), Bocas del Toro (25) and Los Santos (23).





Number of allocated Housing solutions, beneficiaries and amount of funds transfers of the Housing Fund program, per province:

January to October 2016 and 2017

Provinces	Number of housing so- lutions allo- cated	Number of beneficia-ries	Total amount (thousands of balboas)
	2016		
Total  Bocas del Toro Coclé Chiriquí Herrera Los Santos Panamá Panamá Oeste Veraguas	5,184 11 564 1,089 296 264 472 2,187 301	23,887 55 2,815 5,445 1,436 1,320 1,916 9,395 1,505	47,164.6 60.2 5,219.0 10,557.2 2,867.4 2,616.7 4,231.8 18,629.7 2,982.6
Total	<b>2017</b> 4,769	18,925	44,617.4
Bocas del Toro Coclé Chiriquí Herrera Los Santos Panamá Panamá Oeste Veraguas	36 490 704 281 287 767 1,648 556	175 1,950 3,094 1,261 1,159 3,143 5,612 2,531	345.8 4,465.3 6,952.7 2,642.1 2,767.2 7,324.2 14,561.2 5,558.9

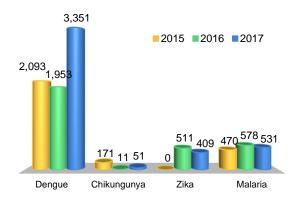
Source: Ministry of Housing and Territorial Ordering.

## 5.5 Epidemiology and vector diseases.

Records from the Ministry of Health (MINSA) on Epidemiology indicated that as of October 2017 the number of cases of Dengue, Chikungunya, Zika, and Malaria increased by 43.6% or 734 more with respect to the same period of 2016.

Despite the general increase in infections, figures on the number of people infected with the Zika virus decreased by 102 less or 20.0% with respect to the previous year; it decreased mainly in the region of Guna Yala (144), Panama Metro (84) and Bocas del Toro (21). The number of people infected with Malaria virus also decreased in 47 cases or 8.1%, mainly in the regions of East Panama (40), Ngäbe Buglé (34) and Darién (28); but they are still the most affected regions next to that of Guna Yala that reported 216 cases.

Confirmed cases of Dengue, Chikungunya, Zika and Malaria, by virus type: January to October 2015 - 2017



Source: Ministry of Health. Epidemiology Department.

However, the spread of Dengue virus continued to increase. On average, 7 out of 10 people infected by some of these viruses was because of Dengue, which was the one that reported more cases 3,351 (1,398 more), concentrated in the region of Panama. While the Chikungunya virus, which had been controlled, rose in 40 cases. 41.0% of the cases were concentrated in the regions of Panama West and Panamá Metro.

These virus infection increases are attributed to the intensification of rainfall which multiplied the breeders. MINSA continues its efforts to eliminate the breeding places and raise awareness among the population.