GOVERNO DO ESTADO
RIO DE JANEIRO
VAMOS VIRAR O JOGO

EPZ

AÇU EXPORT PROCESSING ZONE

São João da Barra - RJ

Figure: Prumo Logística

GOVERNO DO ESTADO
RIO DE JANEIRO
Secretaria de Desenvolvimento
Econômico e Geração de Emprego e Renda

Contents of Document:

I. MESSAGE FROM THE ACTING GOVERNOR

II. PROPONENT'S DETAILS

III. INITIAL CONSIDERATIONS

IV. INTERNATIONAL EXPERIENCE

V. EPORT PROCESSING ZONE – EPZ

VI. ALTERNATIVE LOCATIONS IN THE STATE OF RIO DE JANEIRO

VII. REGION NORTH FLUMINENSE

VIII. MUNICIPALITY SÃO JOÃO DA BARRA

IX. EPZ CHARACTERISTICS

X. LOGISTIC SUPPORT

XI. PROFILE OF EPZ AÇU INDUSTRIES

XII. EPZ ENVIRONMENTAL CONCERNS

I - MESSAGE FROM THE ACTING GOVERNOR

RESUMING THE AÇU EXPORT PROCESSING ZONE (EPZ) PROJECT

Before the coronavirus pandemic, the State of Rio de Janeiro had already been following the path of reindustrialization, with the purpose of regaining economic development through the diversification of its economic structure and the creation of a value chain for the oil and gas segment.

Since I took office, I determined that special attention should be paid to the secondary sector, mainly countryside of the State. The completion of the project of the Açu Export Processing Zone, in the municipality of São João da Barra, was the mission I dedicated myself to fulfilling.

In October 29, 2020, the Selection Notice was published in the Official Gazette of Rio de Janeiro for the company that will be responsible for the implantation and administration of the EPZ, a fundamental step for the development of a strategic region for the economy of Rio de Janeiro.

Instituted by Decree no. 2,542, of July 29, 1988, the EPZs are free international trade areas that make the installation of industrial hubs possible through the suspension of federal taxes for capital goods and inputs purchased in the domestic market or abroad, which generates employment, income increase and promotes a trade balance surplus.

Currently Brazil has 16 Authorized EPZs which are in effective implementation. The success of the Açu EPZ will crown the herculean effort of our Government to carry out a State Program that transcends immediacy and leads us to permanent economic development over time.

Açu meets all the conditions for this model to succeed here in Rio de Janeiro. In addition to its strategic location, the region is home to the Port of Açu Complex, which is becoming the largest energy hub in Brazil, integrating the oil, gas, naval and petrochemical industries, and the thermal power plant projects of Gás Natural Açu (GNA), a joint venture formed by Prumo Logística, BP and Siemens.

The area of 1.8 Km2 planned for the implementation belongs to the Industrial Development Company of the State of Rio de Janeiro (Codin), an agency linked

to the Secretariat of Economic Development, Energy and International Relations of the State - SEDEERI.

The company will conduct the implementation project, inspect the contract and analyze the requirements of industries that want to settle in the Açu EPZ. In order to bid, the company must prove that it will have the financial capacity to cover the project costs, in addition to the deposit of contractual guarantees.

Resuming the Açu EPZ project is part of our government's policies and efforts to diversify and decentralize the economic activity in the State, strengthening industrial centers, reducing inequalities between regions and enabling the increase of tax revenues in the countryside municipalities.

In addition, this project will serve as an important instrument to maximize the return of economic growth in the region in a post-crisis moment of the COVID-19 pandemic.

Bringing economic and social development to all of the State of Rio de Janeiro. This is my commitment.

Cláudio Bomfim de Castro e Silva
Acting Governor
State of Rio de Janeiro

II - PROPONENT'S DETAILS:

Proponent: **Rio de Janeiro State Government**

CNPJ (Company tax registration number): **42.498.600/0001-71**

Legal representative and contact information:

Name: **Fábio Eduardo Galvão Ferreira Costa**

Position: **Chief executive officer**

Address: Avenida Rio Branco, nº. 110, 34º andar, Centro, RJ.

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In charge of technical details and contact information:

Name: **José Isaac Lerer**

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III - INITIAL CONSIDERATIONS

When considering the various regions around Rio de Janeiro one can observe it presents the highest concentration of demographic economics within its metropolitan region.

This assertion can be confirmed when analyzing the physical distribution of the population and the GDP of Rio de Janeiro state. North Fluminense contains 5.9% of the states population in 22.3% of the states territory and a GDP equivalent to 15.7% of the Fluminense total.

The Metropolitan region on the other hand has practically the same area, 23.4% of the state, houses 78.8% of the population and is responsible for 63% of the GDP. When one compares this with other regions around the state, such as the Northeast the distortion is even greater.

In comparison one can cite the Metropolitan region of São Paulo, which represents one of the greatest demographic and economic concentrations of the country, with 49% of the population and 55% of the Paulista GDP, percentages lower than those presented in the Fluminense metropolitan area.

This situation shows the need to provide within the Rio de Janeiro state policies that lead to dissemination of economic activities, not only to reduce economic and social inequalities around the regions, but also to reduce the migratory pressure of the population from the interior to the metropolitan area as well as additionally providing a better tax income for small and medium-size towns.

The proposal does not mean that one should not focus on growth in the metropolitan area of Rio de Janeiroin the areas it offers comparative advantages such as services, tourism, technology and some industrial segments, albeit policies that are complementary and not exclusive.

It is within this context – strengthening the holes in the interior – that EPZ do Açu inserts itself notably when one sees that the area chosen is beside the town of São Francisco do Itabapoana, which has one of the worst HDIs in the state.

IV– INTERNATIONAL EXPERIENCE

One of the main factors that enabled the industrial production boom in China was the creation of Special Economic Zones (SPEZs), as well as opening up important ports to external capital. The SPEZ's known here as Exportation Processing Zones – ZPEs are made up of Free Trade Zones through a more flexible legislation, thus reducing or even exempting taxation.

These steps were taken to attract foreign investment and absorb state-of-the-art technology developed in more advanced countries. They have become the focus of huge investments from, above all, Japanese and North American businesses.

Between 1980 and 1984 the Chinese government established a series of Special Economic Zones with their own laws for private economic development that removes them from the then rigid communist regime in the rest of the Chinese territory. They were established in Shantou, Shenzhen, and Zhuhai, all in the province of Guangzhou, in Xiamen and in Fujian as well as in the entire island of the province of Hainan.

The general lines of these Chinese SEZs maintain the following characteristics

- Opening of their markets to foreign capital yet keeping a strong Governmental participation;
- Around the ports and urban areas;
- Diversified industrial production aimed especially at exportation;

- Supported by a network of infrastructure allowing access to financial capital;
- Abundant labor;
- Utilizing an economic model: market economy;
- Exemption from taxation.

As an example of the Chinese policy success one can cite the EPZ in Xiamen, situated in the state of Fujian, with a population of 100,000 inhabitants in an area of 1700 km², smaller than Volta Redonda with an area of 2016 km² which is the smallest municipality in Rio de Janeiro state in area. The companies installed, exported to the BRIC countries, Brazil, India, South Africa and Russia $3.4 billion in the first semester of 2017. With an annual total of about $6.8 billion in exports, slightly lower than the export of manufactured items in 2016 by Rio de Janeiro state, $8.7 billion. It is important to point out that the quantity only refers to sales to BRICS.

Most certainly if exportations to other countries were included the sales by the EPZ from Xiamen would be greater than those by Rio de Janeiro and a majority of Brazilian states.

Another item that demonstrates the relevance of the EPZ in the Chinese economic development process and the results obtained by the biggest free-trade zone of the country is situated in Guangdong State. The Shenzhen EPZ includes three Free Trade Zones, the Shenzhen Yantian Port Free Trade Zone, Shenzhen Futian Free Trade Zone, Shenzhen Shatoujiao Free Trade Zone.

Total exports for Shenzhen surpassed $271.37 billion in 2012 representing 13.2% of the total for China and 47.3% of the total for Guangdong. It sustained its position as the largest exporter of all the cities in continental China for 16 years, where the total foreign trade for the free-trade zone in Shenzhen totaled $126.25 billion, representing 46.5% of the total of exports from Shenzhen.

The good performance of the EPZs in China can be attributed not only to the special economic policies and flexible governmental measures, but also to favorable logistics offered by the companies notably in terms of their proximity to ports.

Shenzhen Shatoujiao, created in 1987, is situated 1 km from the Yantian Port and in the oldest free-trade zone in the province of Guangdong. Shenzhen Futian, created in 1991 is located beside the freeway that connects Hong Kong via the Lok Ma Chau Bridge and Shenzhen Yantian Port located within the Yantian Port, was approved in 1996.

The part of Shenzhen was the fourth largest port in the world in 2013 in terms of container movement and the international Airport Shenzhen Bao is the fourth largest airport on the Chinese continent in terms of cargo.

As can be seen from historic motives, the Chinese EPZs are fruitful as they can count on very good logistic support, notably a close efficient port hub.

But it's not only in China that the EPZs have shown themselves relevant in economic development policies, countries with technological and social economic distinction such as Mexico, India, Puerto Rico, Costa Rica, amongst others, this mechanism has been used equally successfully.

In general terms one can see that combining adequate physical legislation, good logistics and benefiting trade can transform the EPZs into strong pillars of the economy of a country, in the present case North Fluminense.

The present tax legislation in force in the EPZs, that will be approved, the PL 5957/2013 is passing through congress, together with excellent logistics offered

by the Porto do Açu region – where speed of loading and offloading at the port, its deep water canal, and good location in relation to the triangle formed by the cities of Rio de Janeiro, Belo Horizonte and Victoria are just some of them. There is also the infrastructure and qualified labor within the region on Campos/Macaé the axis, that makes the EPZ of Açu, if approved one of the best locations for companies both national and international who wish to trade their products on the competitive international market.

V - THE EPZS WITHIN NATIONAL CONTEXT

The export preparation zones – EPZs are defined as free-trade areas focused on the installation of companies that produce goods to be exported, being in primary zones for customs control.

The purposes amongst others are listed below:

- Attract investments for exportation;
- Prepare local companies to compete with those located in other countries that have similar mechanisms;
- Create jobs and income;
- Correct regional inequalities;
- Increase added value to exportations and strengthen the balance of payments;
- Disseminate new technology and modern management practices.

The companies installed in the EPZ can count on exchange and administrative incentives, awarded by the federal government (Law 11.508/2007, with its alterations contemplated by laws 11.732/2008 and 12.767/2012, summarized as follows:

- Exemption from tax and contributions (importation tax, IPI, PIS, COFINS, PIS-Importação and COFINS-Importação and additional freight tax for renewal of the merchant Navy) for acquisitions from the internal market

and/or importation. For the purposes of importing capital goods, the incentive applies to new merchandise as well as used merchandise the latter being from the industrial complex and being a constructive integral part of the company's capital stock;

- The companies may designate up to 20% of its gross income from the sales and services from the domestic market. However, there shall apply in their total part the taxes and normal contributions on the operation and taxation/contributions exempted whenever the importation or acquisition of said supplies come from the internal market;

- The companies shall have freedom of exchange, they may maintain a broad permanently 100% of the earnings received from exportation; outside the EPZ, however, said facility is not guaranteed by law and shall be subject to the National Monetary Counsel regulation;

- The companies are no longer bound by licenses or authorizations from federal authorities for their importation and exportation that are not subject to sanitary control, national security or environmental protection.

- The fiscal, exchange and administration norms mentioned above are guaranteed for a period of 20 years and may be extended for the same period should there be investments of large volume that demand longer periods for amortization;

Furthermore, the companies from the EPZ shall also have access to the following available benefits of any kind, independently whether located in the EPZ or not:

- Zero income tax for amounts sent abroad for promoting trade;
- Preference in acquisition of government goods and services with respect to information technology and automation;

- Exemption and maintenance of IPI credit and accelerated depreciation for new equipment, machinery, apparatus and instruments; and various benefits (total depreciation, reduced income tax on monies sent for registering brands etc.) for companies that work with research and development and state-of-the-art technology.

Within the ambit of state government companies installed in EPZ can take advantage of exemption from the ICMS tax on and acquisitions within the domestic market. The ICMS 99/1998 CONFAZ convention altered by the ICMS convention 119/2011, authorized the states to suspend ICMS on internal dispatches destined for establishments located in the EPZ; The entrance of merchandise or goods from abroad; provision of transport between goods or merchandise among the EPZ and loading/offloading should the case be.

Whereas, ICMS convention 97/2012 authorizes states to exemplify differential charges on rates from interstate capital goods transactions.

VI - ALTERNATIVE LOCATIONS IN THE STATE OF RIO DE JANEIRO

International experience has shown that EPZs when carefully located can be an important part of regional economic dynamics. For this reason the decision where it should be located within the state was an important question as Rio de Janeiro offers a diverse competitive alternative locations to receive such a project.

The analysis considered, amongst others the following aspects:

- The need for a port within the municipality was part;
- The demands contained within resolution CZPE 01/2010 that defines the basic criteria for installing the EPZwithin a specific region;
- Availability of sufficient space for the projects in terms of urban, environmental, and institutional installations within the various regions chosen;
- To meet, in logistic terms the main demands of the companies.

Article 4 of the aforesaid resolution determines that the projects be installed in regions of least development, as well as determining its installation in the capitals of the states located in the south and southeast.

Article 5 defines the following basic directives for the creation of a EPZ, which are:

- Contribute to local development enabling a reduction in regional inequalities;
- Take advantage of the exporting potential of the region and augment the added value of Brazilian exportation;

- Prioritize proposals for creating the EPZ located in a privileged geographic region for exportation;

- Utilize the natural resources rationally.

The provision under item I details that the EPZs are considered instruments to reduce regional inequality, and should be installed in lesser developed areas. At the same time the region must contain privileged potential for exportation, as understood:

- Availability of supplies (raw materials, parts, pieces or components);

- Offer conditions for the production of goods and services, skilled labor or capacity for training;

- Provide efficient channels for the entrance of raw materials and exit of manufactured goods abroad (ports, airports, highways, railways);

In addition to the acts that ask considered above other conditions were contemplated, such as:

- The region must offer industrial districts Legally defined as such;
- Provide physical adequate infrastructure;

Based on the legal aspects and criteria provided above, assessments were made in relation to the following alternative locations;

- Rio de Janeiro;
- Niterói;
- Itaguaí;
- Macaé (port expansion);
- Maricá (Port – project);
- São João da Barra.

Summarily the situation of each one of the alternatives is as follows:

Rio de Janeiro – the port of Rio does not have a retro area available, the city is the richest in the state, (legislation determines that the EPZs must be installed in less developed regions) and is definitely against the installation of EPZs in state capitals both in the South and South Eastern regions;

Niterói – Does not have a retro area in the port, has reduced movement of cargo shipping, furthermore it is situated within the city with the highest HDI in the state;

Itaguaí - was approved in 1994 through federal decree 1278/94 there would be an EPZ in Itaguaí in an area where a petrochemical gas pole is implanted, at the time property of Petrorio which today belongs to Petrobras. The state decree 20.811/94 determined the adoption of measures to create a public administration, whereby this was one of the reasons the project did not go ahead, it was discontinued due to change of government and lack of public funds. Itaguaí port one of the most modern in Brazil is run through private initiative.

Macaé - due to the operational saturation of the Imbetiba Port situated, a new terminal will be built, named Tepor, for the purpose cargo destined for exploration and production units within the Campos and Santos basins. The new terminal shall have a maritime platform of about 90,000 m² for the purposes of handling 14 large vessels simultaneously with an area of 400,000 m² on land in support of offshore operations. Its works should be concluded in 2020.

Maricá - has no port as such there is a project underway for the implantation in Jaconé of the Ponta Negra Terminal (TPN) for the transport of liquid bulk goods and containers. The enterprise still

depends on approval from the environmental authorities and the deadline for the works is 30 months, the intended date for beginning operations is 2020;

São João da Barra - the town has the Açu Port which represents an area of 90 km², located 150 km from the campus basin, with 17 km of wharf and a depth of 23 m with the capacity to receive large vessels. Furthermore, there is an industrial district of 72 km² and a retro area for storage and handling of cargo, being the fourth private cargo terminal in the country.

From the above one can see that the Maricá and Macaé terminals will only be ready in 2020. The alternative the port of Rio de Janeiro is not feasible under present legislation which prohibits implantation of EPZs in South/southeastern capitals. Whereas, the port of Niterói has few shipping lines, there is no retro area, having the highest HDI within the fluminense municipality and being situated in the richest region of the state.

For this reason the alternative locations for an EPZ in the fluminense territory are restricted to two towns: **São João da Barra and Itaguaí, it was on these two alternatives that a deeper comparative analysis was made.**

The survey showed that the Itaguaí municipality had higher social indexes to those in São João da Barra, including the HDI. Furthermore, it was situated in the richest metropolitan region in the state, and was responsible for 68.6% of the fluminense GDP, in contrast to São João da Barra, which is situation in the northern region and only answers for 15.5% of the states Gross Domestic Product (GDP)

Based on the EPZ criteria "that the projects must be installed in less developed regions" the assessment tended towards São João da Barra.

With respect to the port efficiency criteria, both ports are modern, contain deepwater canals and large retro areas, and are both administered by private experienced capitalized groups.

With respect to the infrastructure, both ports provide high-voltage power, basic sanitation, highways, whereas, Itaguaí has a railway, Açu model is under Federal government study, Itaguaí is also supplied by gas, whereas, Açu gas supply will be implanted by 2021 with the capacity to process 6,500,000 m³ per day, counting on 6400 MW already under license to be used as a raw material produced in the Campos and Santos basins.

However, there is one aspect to be included in the above that makes the present feasibility project of the EPZ in Itaguaí more difficult, as the chosen area does not belong to the state government, nor the local authorities, it is the property of Petrobras which does not consider (sale as neither the state nor local government has the wherewithal) of the area to one of the federative entities for project development. Even if this possibility existed the subject is not so simple as Petrobras is a public limited company with shares on the stock market and cannot at zero cost relinquish part of its assets.

Furthermore, for the government for legal purposes carry out a public selective process in the choice of a private company to install and administer and EPZ, it is obligatory that it is the owner of the area and this would not be the case in Itaguaí.

Whereas, the area selected for the EPZ in São João da Barra is within the municipal industrial district, which has an environmental license and belongs to CODIN - Rio de Janeiro state industrial development company, a quasi-public state company and will be under the state during all stages of the process for the implementation and administration of the EPZ.

As such when considering the social, logistic, economic and founded variables for the two locations as a background regulation CZPE 01/2010 determines that São João da Barra Municipality, where the Açu Port is located, best meets the federal political norms for EPZ, government priorities, (decentralization of economic activities) and the companies that have interest in installing themselves in a EPZ within Rio de Janeiro state.

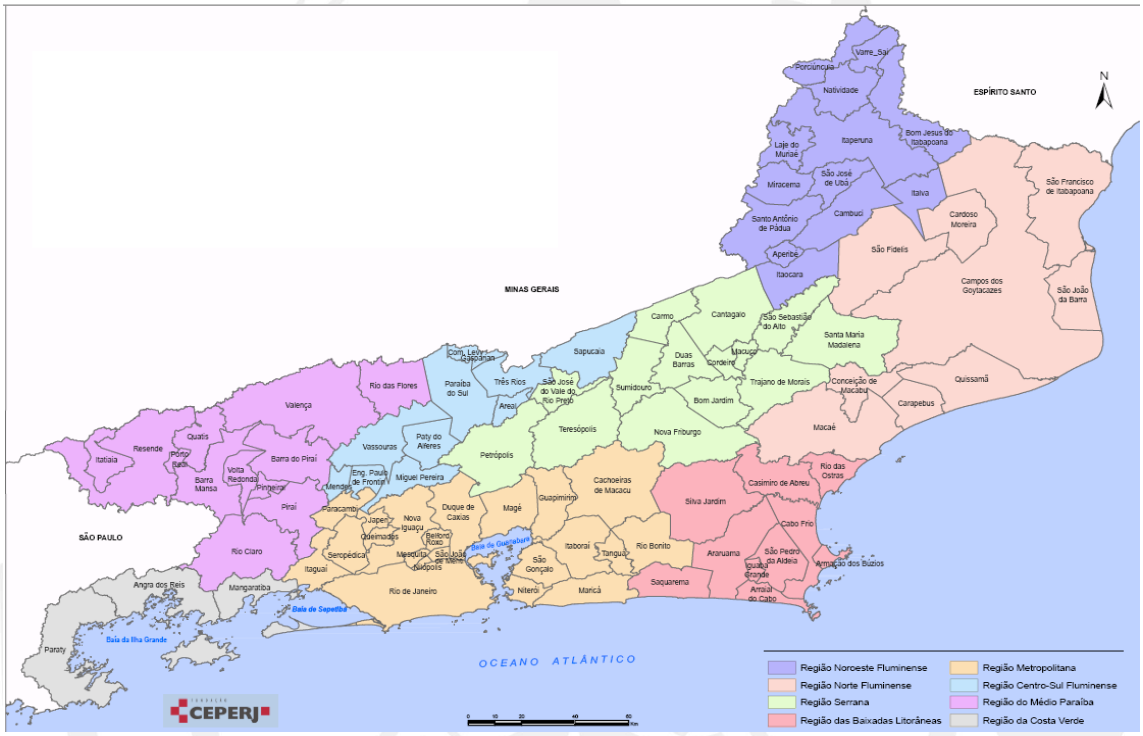
VII - NORTH FLUMINENSE REGIONAL CHARACTERISTICS

There are 955,191 inhabitants in the north Fluminense region, which corresponds to 6% of the Rio de Janeiro state population. It's demographic density is around 96 inhabitants/km² while the state average is 365 inhabitants/km², 180% greater.

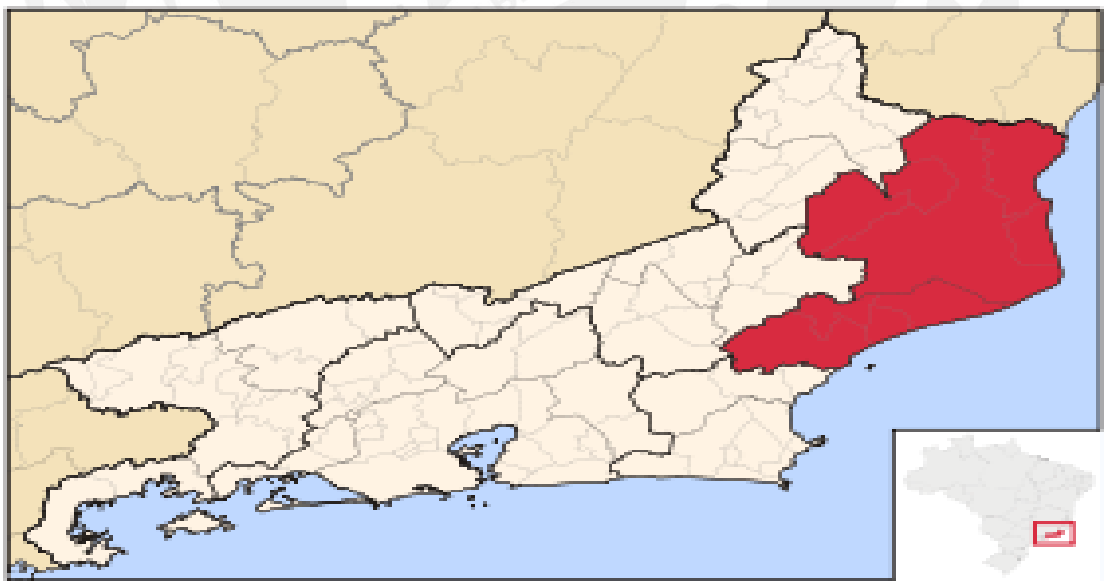
The biggest population for the region is in Campos dos Goytacazes, 49% with the third highest demographic density 115 inhabitants/km². The city of Macaé has the 2nd highest population in the 2nd highest demographic density in the north.

Rio das Ostras municipality has the highest density in the region, 461 inhabitants/km², 15th place in the state. With its 12,600 inhabitants, Cardoso MoreiraIs the largest city in the north, 80th in state population, with a demographic density much lower i.e. 86th place.

Rio de Janeiro State Regions



North Fluminense Region



RESIDENT POPULATION, TOTAL AREA AND DEMOGRAPHIC DENSITY: RIO DE JANEIRO, NORTH FLUMINENSE AND MUNICIPALITIES, 2010.

	POPULAÇÃO	ÁREA (KM²)	DENSIDADE DEMOGRÁFICA (HAB/KM²)
ERJ	15.989.929	43.780	365
Norte Fluminense	955.191	9.974	96
Campos dos Goytacazes	463.731	4.027	115
Carapebus	13.359	308	43
Cardoso Moreira	12.600	525	24
Conceição de Macabu	21.211	347	61
Macaé	206.728	1.217	170
Quissamã	20.242	713	28
Rio das Ostras	105.676	229	461
São Fidélis	37.543	1.032	36
São Francisco de Itabapoana	41.354	1.122	37
São João da Barra	32.747	455	72

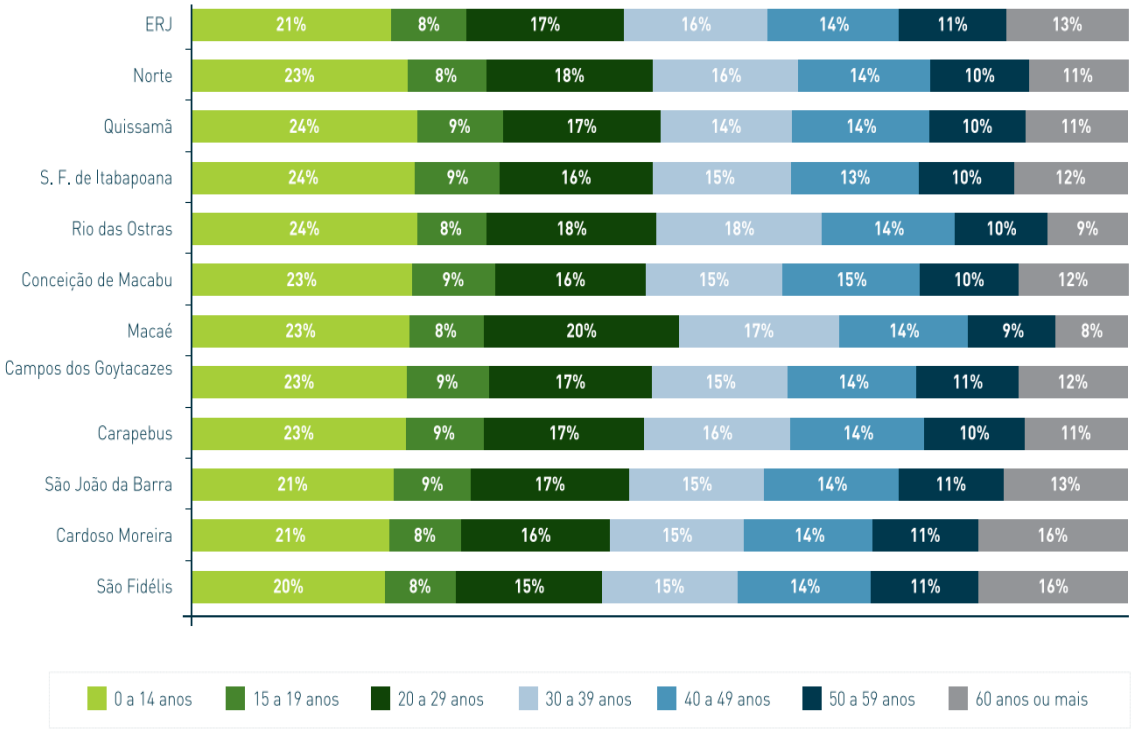
Fonte: IETS, com base nos dados do Censo/IBGE (2010).

Notas: exclusive a população residente nas áreas urbanas isoladas; valores incluindo as águas interiores.

The distribution of population by age group in North luminance reveals a great proportion of the youngest (children between 0 to 14 and adults between 2O to 29), and the lowest among the elderly (adults above 50 years old), when compared to the average for the Rio de Janeiro state.

The municipalities of Quissamã, São Francisco de Itabapoana and Rio das Ostras have the greatest (0 - 14years). On the other hand, São Fidélis and Cardoso Moreira have the highest percentage of people over 60 years old or older (16%), contrary to Macaé (8%) and Rio das Ostras (9%). Furthermore, these two municipalities have a greater participation of adults from 20 to 59 years old, with 61% in Macaé and 60% in Rio das Ostras

POPULATION DISTRIBUITION BY AGE GROUP: RIO DE JANEIRO, NORTH FLUMINENSE AND MUNICIPALITIES, 2010.



Source: IETS, Based on data from the Census/IBGE (2010).

- **The Municipal Human Development Index (MHDI)**

To assess the quality of life in the regions municipalities the MHDI which is the result of three geometric indicators, longevity, education, it varies from 0 to 1, considering that the closer to 1 the greater the human development for the municipality.

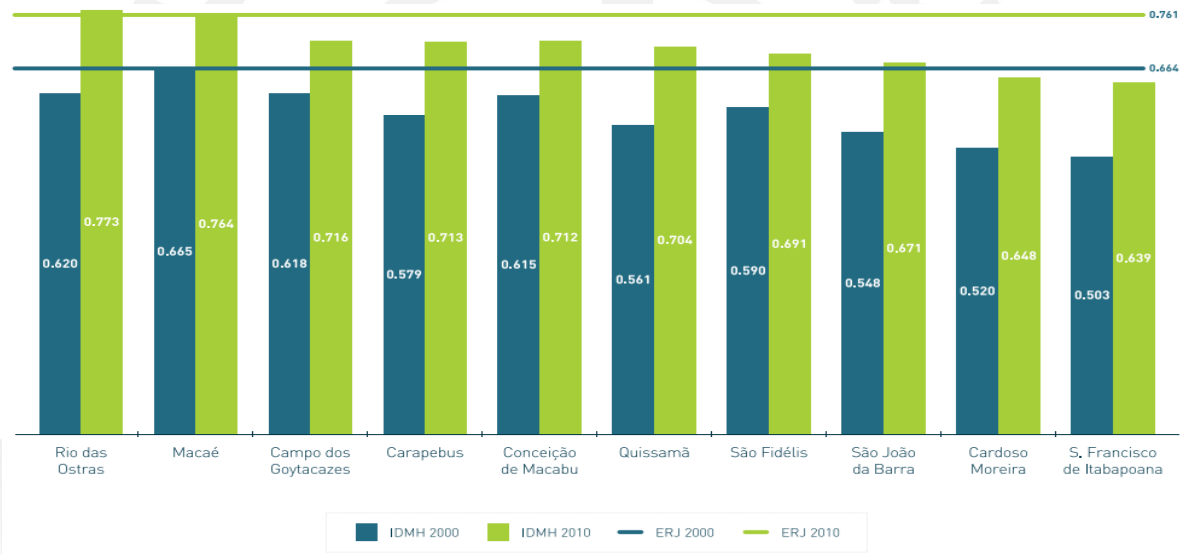
There are five bands of development: very low (equal to or lower than 0.499); low (between 0.500 and 0.599); medium (between 0.600 and 0.699); high (0.700 and 0.799); and very high (equal to or greater than 0.800).

Among the municipalities in the north, in 2000, only Macaé overtook the MHDI for the state, even so the difference was very small. In 2010, Rio das Ostras registered the highest MHDI for the region which was greater than the state.

The municipalities of Carapebus and Quissamã past the band of low

development, in 2000, two the high-level in 2010, indicating social improvements even so they are lower than the average for the state. The municipalities that presented the lowest indexes are Cardoso Moreira and São Francisco de Itabapoana.

Municipal human development index: Rio de Janeiro state and North Fluminense Municipalities, 2000 and 2010.



Source: IETS, Based on data from the human development Atlas Brazil/UNDP-FJP (2013).

In relation to the regional changes in state ranking of the MHDI between 2000 and 2010, those of note are Rio das Ostras, that grew by 27 positions, and Carapebus, that gained 24. In both municipalities the dimension that grew most was education, followed by longevity and income. Despite the improvements in MHDI, Macaé tell from 4th to 7th place, behind Rio das Ostras, 3rd place in the state. This municipality grew more than Macaé in the three dimensions of the indicator, however, MHDI income in Macaé is higher than Rio das Ostras.

The GDP per capita in North Fluminence is the highest among the states regions, due to petroleum and natural gas activities. However, the percentage of poor and inequalities in income, measured by the Gini coefficient of among the highest indicating regional inequality despite wealth.

Of the five municipalities with the highest GDP per capita in the state four are in the north: Quissamã, São João da Barra, Rio das Ostras and Campos dos Goytacazes. Rio das Ostras has the best regional indexes except in income inequality. Campos dos Goytacazes has the fifth highest GDP per capita in the state and the 33rd family income per capita, however, as it has the greatest regional income inequality one of the poorest in the state (89th), the highest percentage of poor 38%.

São Francisco de Itabapoana, neighboring São João da Barra, is the most critical city: occupying 91st position in the MHDI ranking (second to last in the state) with the lowest family income per capita, more than half the population are poor (56%), even though it's the 31st in GDP per capita.

MHDI RANKING IN 2000 AND 2010, GDP PER CAPITA, PERCENTAGE OF POOR, GINI COEFFICIENTE AND FAMILY INCOME PER CAPITA: RIO DE JANEIRO STATE, NORTH FLUMINENSE AND MUNICIPALITIES

	RANKING IDHM 2000	RANKING IDHM 2010	PIB PER CAPITA (R$) 2011	RANKING PIB PER CAPITA	% DE POBRES	RANKING ESTADUAL % POBRES	COEFI-CIENTE DE GINI	RANKING ESTADUAL GINI	RENDA DOMICI-LIAR PER CAPI-TA (EM R$ POR MÊS DE JULHO DE 2010)	RANKING RENDA DOMICI-LIAR PER CAPITA
ERJ			28.696		26		0,599		991	
Norte Fluminense			74.656		32		0,570		752	
Campos dos Goytacazes	36	37	79.485	5	38	78	0,578	89	651	33
Carapebus	65	41	58.150	11	27	25	0,445	6	603	47
Cardoso Moreira	89	89	10.454	83	42	84	0,477	23	445	86
Conceição de Macabu	37	47	9.987	87	30	36	0,488	31	602	49
Macaé	4	7	59.116	10	20	5	0,566	85	1.047	3
Quissamã	73	55	193.741	2	35	68	0,542	75	602	48
Rio das Ostras	30	3	83.103	4	19	4	0,536	71	1.022	4
São Fidélis	58	65	12.000	63	33	54	0,472	19	557	62
São Francisco de Itabapoana	91	91	18.094	31	56	92	0,520	61	353	92
São João da Barra	82	76	179.908	3	37	75	0,514	55	541	70

Fonte: IETS, com base nos dados do Atlas do Desenvolvimento Humano no Brasil/PNUD-Ipea-FJP (2013), do PIB dos municípios/IBGE (2011) e do Censo/IBGE (2010).

Notas: os rankings do IDHM estão de acordo com os do PNUD. A linha de pobreza utilizada foi de metade do salário mínimo de 2010 (R$ 255). O coeficiente de Gini mede a desigualdade de renda e varia entre zero (igualdade perfeita) e um (desigualdade total). Os dados do PIB per capita estão sujeitos a revisão. O PIB per capita das regiões foi calculado com base no PIB dos municípios. O índice de Gini difere do Painel anterior devido a atualizações dos microdados da amostra do Censo 2010. Os rankings estão ordenados pelas melhores posições.

- **Income bracket for population in North Fluminense:**

Distribution of residence by income level reveals that the northern region has the highest concentration of low-income class: 42% of the residences receive up to two minimum salaries (MS), while this is 36% for the RJS. In relation to residences with income higher than 2 MS, the participation for the region is (53%) inferior to the state's (60%).

MONTHLY HOME INCOME BRACKET (MS)
RIO DE JANEIRO STATE, NORTH FLUMINENSE AND MUNICIPALITIES

	CLASSES DE RENDIMENTO NOMINAL MENSAL DOMICILIAR (SALÁRIO MÍNIMO) (1) – %				
	ATÉ 1	MAIS DE 1 A 2	MAIS DE 2 A 5	MAIS DE 5	SEM RENDIMENTO (2)
ERJ	14	22	35	25	5
Norte Fluminense	18	24	32	21	5
Campos dos Goytacazes	21	25	31	18	5
Carapebus	17	24	37	17	5
Cardoso Moreira	31	31	24	8	6
Conceição de Macabu	20	27	35	15	3
Macaé	9	20	37	29	5
Quissamã	20	28	34	14	4
Rio das Ostras	10	19	37	31	4
São Fidélis	25	31	29	11	3
São Fco de Itabapoana	37	29	20	5	9
São João da Barra	25	30	30	11	4

Fonte: IETS, com base nos dados do Censo/IBGE 2010.

Notas: (1) salário mínimo utilizado: R$ 510; (2) inclusive os domicílios com rendimento mensal domiciliar somente em benefícios.

Among the municipalities, the percentage of homes earning more than five minimum salaries is higher in Rio das Ostras (31%) and Macaé (29%).

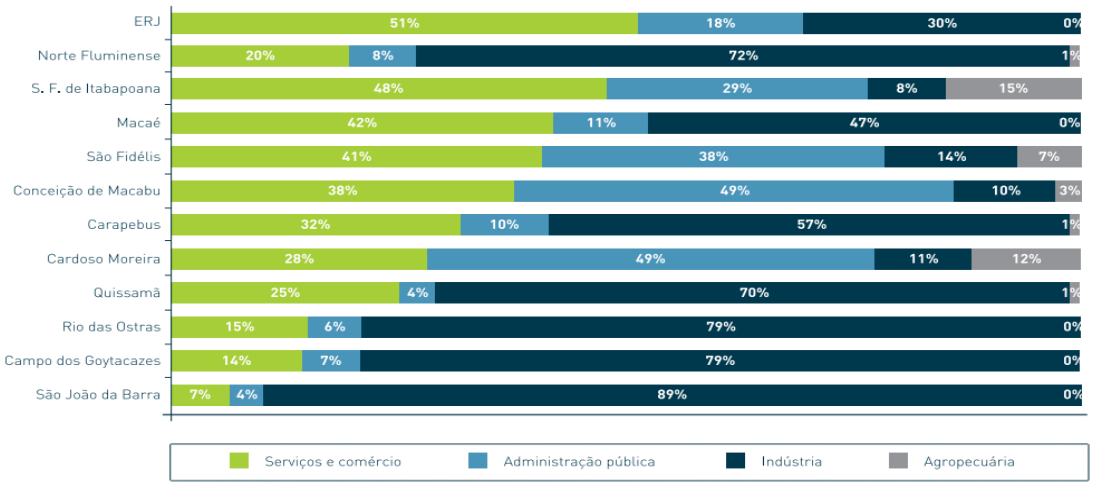
In São Francisco de Itabapoana homes show a income of up to two MS. In Cardoso Moreira, the percentage is 62%. Within this group the lowest percentage is in Rio das Ostras and Macaé: 29%. It is important to note that in São Francisco de Itabapoana 9% of the homes have no income.

The population of São João da Barra has an income level lower than the average for the northern region and the state incomes above five MS. Only 11% earn above this bracket, while in the northern region the average is 21% – 25% for the state. The monthly income for the majority of the population in the municipality, 55%, is no higher than two minimum salaries.

- **Economic Activity, Formalization and Taxation.**

The graph below presents the participation of the four large economic sectors in Gross Value Added (GVA): services and trade, industry, livestock and public administration. The last activity includes administration, health and public education and welfare services.

Distribution of the gross value added by sector of economic activities for Rio de Janeiro state, North Fluminense and municipalities 2011.



Source: IETS, Based on data from CEPERJ and IBGE (2011).

North Fluminense has a heavily industrialized region (72%), determined by the elevated participation in the sector in São João da Barra (89%), Rio das Ostras (79%), Campos dos Goytacazes (79%), and Quissamã (70%).

It is important to mention the weight the petroleum industry has in the region, as of the nine municipalities belonging to the main production zone from the Campos basin, six are in the North: Campos dos Goytacazes, Carapebus, Macaé, Quissamã, Rio das Ostras and São João da Barra.

The municipalities of Conceição de Macabu and Cardoso Moreira concentrate the greater part of economic activity on public administration (49% each). Whereas, the services and business sector represent 40% of the economic activity in Macaé (42%) São Francisco de Itabapoana (48%) and São Fidélis (41%). In these last two views of parties the second most important activity is public administration. Industry also is higher than 40% in Macaé.

Whereas, livestock is strong into municipalities: São Francisco de Itabapoana (15%) and Cardoso Moreira (12%), remembering that the sugar alcohol sector performs an important role in the region, yet is in decline.

The real GDP growth rate in the northern region between 2010 and 2011 is almost 5 times greater than the rest of the state and is also greater than all other regions. After the city of Rio de Janeiro, the GDP in the north is greater than RJS.

It's worth it to mention that the region receives various investments arising mainly from the economy generated by the production of petroleum and natural gas, like the construction of the Açu port complex in São João da Barra and logistics of the Barra do Furado, between Campos dos Goytacazes and Quissamã.

GDP RIO DE JANEIRO State, NORTH FLUMINENSE AND MUNICIPALITIES WORTH COMPARISON TO 2011 - X R$1000

	2010	2011	TAXA DE CRES-CIMENTO (%)
ERJ	435.621.389	462.376.208	6,1
Norte Fluminense	55.297.947	71.310.627	29,0
Campos dos Goytacazes	27.645.244	37.205.791	34,6
Carapebus	627.484	796.484	26,9
Cardoso Moreira	127.833	131.728	3,0
Conceição de Macabu	198.070	213.880	8,0
Macaé	11.951.340	12.558.285	5,1
Quissamã	3.332.874	4.019.544	20,6
Rio das Ostras	6.557.926	9.223.728	40,7
São Fidélis	426.590	451.199	5,8
São Fco de Itabapoana	698.125	748.548	7,2
São João da Barra	3.732.460	5.961.440	59,7

Fonte: IETS, com base nos dados do Ceperj e do IBGE (2011).

Nota: os dados de 2011 estão sujeitos a revisão; o PIB da região foi calculado com base no PIB dos municípios.

Among the municipalities the highest growth was in São João Barra with 59.7% (second-highest for the state), followed by Rio das Ostras (40.7% and 4th RJS) and Campos dos Goytacazes (34.6%), which is the highest GDP for the region and second for the state.

In Cardoso Moreira (3%), Macaé (5.1%) and São Fidélis (5.8%), was the lowest for the northern region, below the percentage point for the state.

- **Entrepreneurism**

In a way to measure the level of legalized entrepreneurs in the municipalities pension plans were considered, the pension plan, i.e. is the proportion of workers who on their own and employers contribute to the pension program. Subscription to the pension plan in the northern region is lower than that for the RJS in all occupations, except amongst employers with five or more employees.

LEVEL OF LEGALIZED ENTREPRENEURS IN RIO DE JANEIRO STATE, NORTH FLUMINESE AND MUNICIPALITIES - 2010.

	CONTA PRÓPRIA (%)	EMPREGADORES (%)		
		TOTAL	ATÉ 5 FUNCIONÁRIOS	COM 5 FUNCIONÁRIOS OU MAIS
ERJ	29,0	72,1	66,5	80,8
Norte Fluminense	27,9	70,0	62,4	84,0
Campos dos Goytacazes	28,8	74,0	67,0	85,2
Carapebus	16,8	71,5	67,3	100,0
Cardoso Moreira	27,3	77,8	69,1	100,0
Conceição de Macabu	33,9	86,8	79,4	100,0
Macaé	28,9	69,8	62,2	77,5
Quissamã	30,4	62,6	48,9	70,5
Rio das Ostras	25,9	65,5	59,3	90,5
São Fidélis	31,7	70,7	61,1	100,0
S. F. de Itabapoana	19,1	58,9	52,9	100,0
São João da Barra	26,1	52,7	43,8	85,1

Fonte: IETS, com base nos dados do Censo/IBGE (2010).

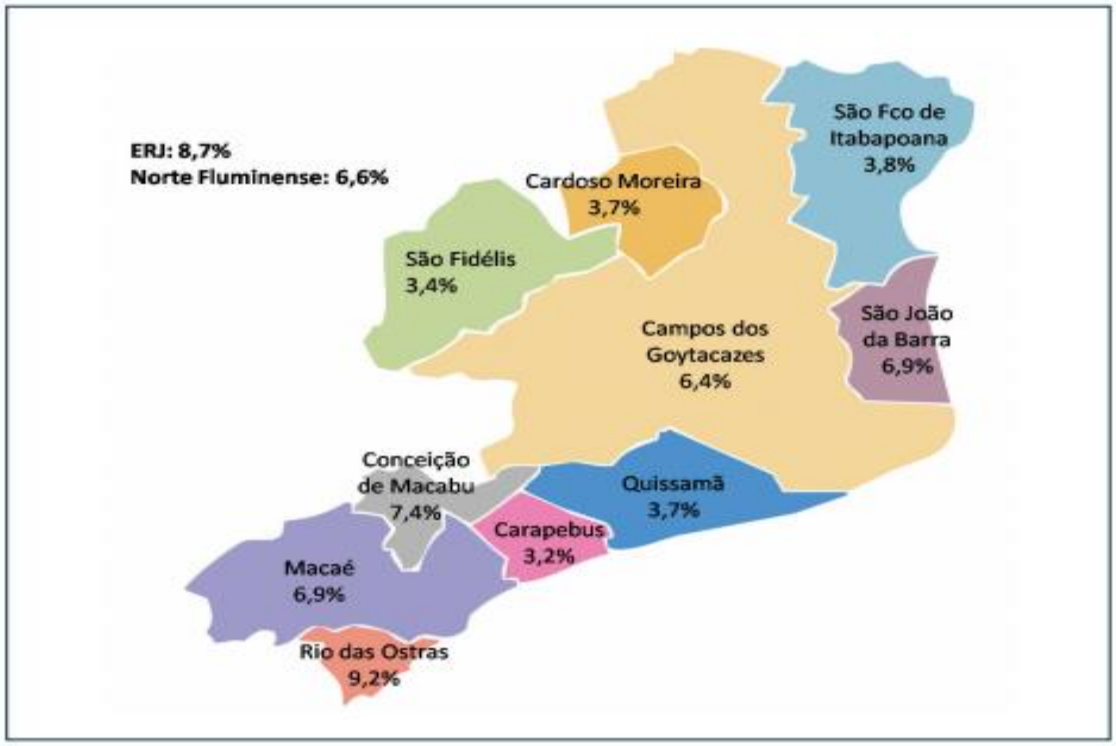
Among municipalities legalization in Conceição de Macabu is the highest for all trades, including in comparison to the state. In the case of employers legalization for the city was among the 10 highest for the state Legalization among self-employed workers is very low in Carapebus (16.8%) and São Francisco de Itabapoana (19.1%). My employer's the lowest level live in São João da Barra (52.7%) and São Francisco de Itabapoana(58.9%).

The percentage of employees in total of entrepreneurs (self-employed and employers) is used to measure the rate of success of entrepreneurialship and express the capacity of the entrepreneurs in creation of jobs. The rate for the Northern region (6.6%) is the third lowest for the state preceded only by the

Baixada Fluminense I (4%) and of the Baixada II (5.2%).

Among the municipalities the greatest Percent of employees in total number of entrepreneurs are Rio das Ostras (9.2%) and Conceição de Macabu (7.4%), much lower than the highest rate found in the state, in Macuco (18.7%). With 3.2%, Carapebus is the city with the lowest percentages of employers among the entrepreneurs, revealing that almost all workers are self-employed.

% EMPLOYERS AMONG TOTAL OF ENTREPRENUERS - 2010



Fonte: IETS, com base nos dados do Censo/IBGE (2010).

Municipal Administration

The public finance court for the Rio de Janeiro state (TCE-RJ) consolidated the tax data for the municipalities and elaborated a series of municipal administration indexes, some of which are presented below. Total income is made up of capital income and working income, as is total expenses.

Working income constitutes: taxation, earnings from property, contributions, livestock income, industrial income, services income, current transfers and other current income Part of the return on capital: credit, disposal of assets, authorization of lower capital transfer and other capital earnings.

the capital expenditure are composed by investments, financial investments and capital expenditure; current expenses, by costing expenses and current transfers.

The indicator for financial according to the TCE, is a result of the division between personal tax income and costing expenses; it measures the contribution from taxation in the municipality in services for maintenance expenditure on services provided by the administrative machine.

The total income and total expenditure for Campos dos Goytacazes the highest for the region and the second highest state. Followed by Macaé, with the third highest total income for the state in the fourth highest total expenditure, income and expenditure per capita in the state, noting also the highest financial autonomy (34%), and the fourth highest for RJS. The second highest financial autonomy for the region is Rio das Ostras (13.5%.)

TO INCOME AND EXPENDITURE AND FINANCIAL INDICATOR NORTH FLUMINESE MUNICIPALITIES

	RECEITA TOTAL EM 2011 (R$ MILHÕES)	RANKING DA RECEITA TOTAL	RANKING DA RECEITA PER CAPITA	DESPESA TOTAL EM 2011 (R$ MILHÕES)	RANKING DA DESPESA TOTAL	RANKING DA DESPESA TOTAL PER CAPITA	AUTONOMIA FINANCEIRA EM 2011	RANKING DA AUTONOMIA FINANCEIRA
Campos dos Goytacazes	2.044	2	14	1.952	2	13	8,5%	47
Carapebus	80	53	6	79	52	5	2,5%	85
Cardoso Moreira	44	75	25	36	80	36	3,4%	80
Conceição de Macabu	51	66	49	46	69	54	3,9%	75
Macaé	1.605	3	4	1.346	4	4	34,0%	4
Quissamã	213	25	2	207	24	2	3,5%	79
Rio das Ostras	603	12	9	519	12	10	13,5%	29
São Fidélis	64	57	76	61	57	78	4,1%	74
São Francisco de Itabapoana	86	50	62	84	49	62	3,8%	77
São João da Barra	339	17	3	269	22	3	6,7%	59

Fonte: IETS, com base nos dados dos Estudos Socioeconômicos dos Municípios do Estado do Rio de Janeiro do TCE-RJ e nos dados fornecidos pelo TCM-RJ.

In Cardoso Moreira, the total income and expenditure are the lowest for the northern region. It's a small financial autonomy (3.4%) is surpassed only by Carapebus (2.5%), which is among the biggest incomes and expenditures per capita in the state (6TH and 5TH place respectively).

The municipality of São João da Barra is third in relation to income and expenditure per capita, 17th in total income, yet is only 59th in state ranking, which demonstrates low financial autonomy.

- **Royalties from Oil**

The northern region receives a huge amount of income from royalties, four of its municipalities occupying first position in royalty ranking for the state: Campos dos Goytacazes, Macaé, Rio das Ostras and São João da Barra. Together they represent 56% of the royalties received in the region. Six municipalities have the highest amounts of royalties per capita in the state. The role of the royalties in the region can also be highlighted by the fact that five municipalities that

participate in this revenue, total earnings surpassed 40%.

ROYALTIES AND INDICATORS MUNICIPALITIES NORTH FLUMINENSE 2011

	ROYALTIES RECEBIDOS EM 2011 (R$ MILHÕES)	RANKING DOS ROYALTIES RECEBIDOS	ROYALTIES PER CAPITA EM 2011 (R$)	RANKING DOS ROYALTIES PER CAPITA	PROPORÇÃO DOS ROYALTIES NA RECEITA TOTAL
Campos dos Goytacazes	1.203	1	2.571,0	6	59%
Carapebus	35	18	2.586,7	5	44%
Cardoso Moreira	6	76	452,8	30	13%
Conceição de Macabu	7	63	308,8	44	13%
Macaé	495	2	2.329,4	7	31%
Quissamã	98	8	4.703,1	2	46%
Rio das Ostras	316	3	2.851,2	3	52%
São Fidélis	8	51	210,0	57	12%
São Francisco de Itabapoana	9	46	214,9	54	10%
São João da Barra	247	4	7.454,0	1	73%

Fonte: IETS, com base nos dados dos Estudos Socioeconômicos dos Municípios do Estado do Rio de Janeiro do TCE-RJ/2012 e nos dados fornecidos pelo TCM-RJ.

Campos dos Goytacazes is leader in the state for royalties received and 6TH royalties per capita. Presented a high level of royalties in total income, revealing the importance of these resources for municipal administration. In São João da Barra, the situation is delicate, as 73% of the revenue coming from royalties is the highest percentage in the state. The royalties per capita also occupy first position in state ranking.

In Cardoso Moreira, the royalties are the lowest for the region (76TH in-state ranking). It's participation in total revenue is 13%, a little higher than São Francisco de Itabapoana, whose participation is the least (10%) among all the northern municipalities.

The table below shows two investment indicators elaborated by TCE-RJ: investment per capita, which is the result of split between total investment and population, and rate of investment expressed by the quotient between

investment and total income.

Those considered investments: all budgetary expenditure software, planning and execution of works, including with the acquisition of necessary real estate for the realization of the latter, and acquisition of installations, equipment and permanent material.

INVESTIMENT PER CAPTA AND LEVEL OF INVESTIMENT NORTH FLUMINESE MUNICIPALITIES

	INVESTIMENTO PER CAPITA (R$)	RANKING DO INVESTIMENTO PER CAPITA	GRAU DE INVESTIMENTO	RANKING DO GRAU DE INVESTIMENTO
Campos dos Goytacazes	875,4	5	20%	6
Carapebus	321,7	29	5%	68
Cardoso Moreira	161,9	53	5%	76
Conceição de Macabu	122,3	67	5%	72
Macaé	728,2	7	10%	35
Quissamã	572,4	12	6%	67
Rio das Ostras	1.068,6	2	20%	7
São Fidélis	44,0	90	3%	87
São Fco de Itabapoana	53,3	88	3%	88
São João da Barra	1.031,5	4	10%	31

Fonte: IETS, com base nos dados dos Estudos Socioeconômicos dos Municípios do Estado do Rio de Janeiro do TCE-RJ/2012 e nos dados fornecidos pelo TCM-RJ.

In the northern region investment per capita in the municipalities vary greatly, with Rio das Ostras having the second highest investment per capita for the state (R$1068.6/inhab) and São Fidélis, the third lowest (only R$ 44/inhab). São João da Barra, Campos dos Goytacazes and Macaé our months the cities with 10 highest investments per capita in the state.

In relation to the level of investment, Campos dos Goytacazes and Rio das Ostras hold the best position in the state, while São Fidélis and São Francisco de Itabapoana are among the last. These two municipalities also have the lowest investment per capita, with low public investment.

- **Entrepreneurial Profile**

North Fluminense has 6.3% of all establishments in the state, of which 48% are in Campos dos Goytacazes, 27% in Macaé and 12% in Rio das Ostras, totaling 87% of the companies in the region. Such data reveals the role of these municipalities as nucleusis of economic activity in North Fluminense. Carapebus has only 77 companies which corresponds to 0.4% of the total São João da Barra has 2.73% of the companies for the region.

NUMBER OF ESTABLISHMENTS BY SECTOR AND SIZE RIO DE JANEIRO STATE, NORTH FLUMINESE AND MUNICIPALITIES, 2012

	TOTAL	INDÚSTRIA			CONSTRUÇÃO CIVIL			COMÉRCIO			SERVIÇOS			AGROPECUÁRIA		
		MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.
ERJ	273.813	16.885	2.968	775	7.811	1.473	440	83.495	16.974	2.244	105.182	23.200	5.232	6.748	355	31
Norte Fluminense	17.358	934	216	85	876	119	31	6.579	993	111	4.796	1.117	277	1.168	50	6
Campos dos Goytacazes	8.339	492	113	15	506	76	9	3.357	503	55	2.029	451	102	608	20	3
Carapebus	77	2	0	0	1	1	0	35	5	0	19	3	0	11	0	0
Cardoso Moreira	168	5	2	0	5	0	0	72	4	0	29	2	1	44	4	0
Conceição de Macabu	330	26	3	0	8	0	0	127	8	1	59	14	2	82	0	0
Macaé	4.679	228	65	62	178	24	11	1.413	324	41	1.611	457	150	105	9	1
Quissamã	242	18	5	0	6	1	0	94	11	0	59	7	2	33	6	0
Rio das Ostras	2.051	95	12	6	127	13	5	825	105	12	686	129	16	19	1	0
São Fidélis	588	41	7	0	14	1	1	246	12	2	126	17	1	117	2	1
São Fco de Itabapoana	410	12	2	0	7	1	0	195	10	0	62	7	0	108	5	1
São João da Barra	474	15	7	2	24	2	5	215	11	0	116	30	3	41	3	0

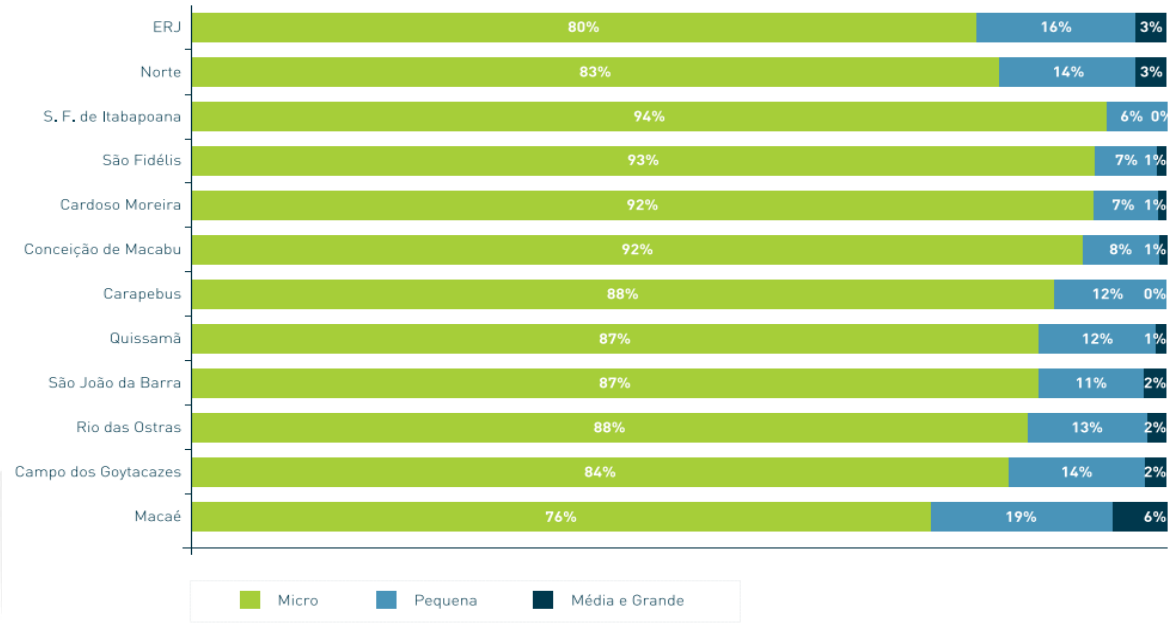
Fonte: IETS, com base nos dados da RAIS/MTE. Notas: excluindo setores de administração pública e serviços domésticos. O Sebrae apresenta no seu Anuário do Trabalho para MPE 2010/2011 a definição do porte do estabelecimento em função do número de pessoas ocupadas e do setor de atividade econômica. Na indústria e na construção civil, as microempresas possuem até 19 ocupados; as pequenas, de 20 a 99; as médias, de 100 a 499; e as grandes, acima de 500 ocupados. Para comércio, serviços e agropecuária, as microempresas têm até 9 ocupados; as pequenas, de 10 a 49; as médias, de 50 a 99; e as grandes possuem mais de 100.

Small businesses in North fluminense represent 97.1% of all companies, practically the same percentage as the state (96.8%). In Carapebus, there are no median nor large companies, totaling 100% small companies. In São Francisco de Itabapoana there are 99.8% of small businesses. Where is the lowest percentages are in Macaé 94.3%, Campos dos Goytacazes 97.8%, and São João da Barra 97.9%.

In relation to the sectorial composition, the greater part of the companies belong

to the retail sector in all municipalities, except in Macaé, where 47% are in the service industry. Quissamã has the highest percentage of industries (10%); and Cardoso Moreira and São Francisco de Itabapoana, whose largest participation is in agriculture (29% and 28% respectively).

DISTRIBUITION OF ESTABLISHMENTS BY SIZE
RIO DE JANEIRO STATE, NORTHERN REGION AND STATE – 2012



Source: IETS, Based on data from CEPERJ and IBGE (2011).

- **Jobs**

Of the 3,688,909 fixed jobs in the state, 234,777 are in the northern region, 6.4% of the total. While the establishments in the region are located, in their majority, in Campos dos Goytacazes, the jobs are concentrated in Macaé (53%). In second place is Campos dos Goytacazes, with 32% of the fixed employment, followed by Rio das Ostras, with 8%. As such, 93% of job are situated in these three municipalities. In São Francisco do Itabapoana, 96% are in small businesses; whereas in Macaé they only employ 24%.

Within the region, 39% of the jobs are in the services sector, a lower percentage compared to the state, 53%. However, participation in industry in the north, 27% is greater to that of the state, 16%.

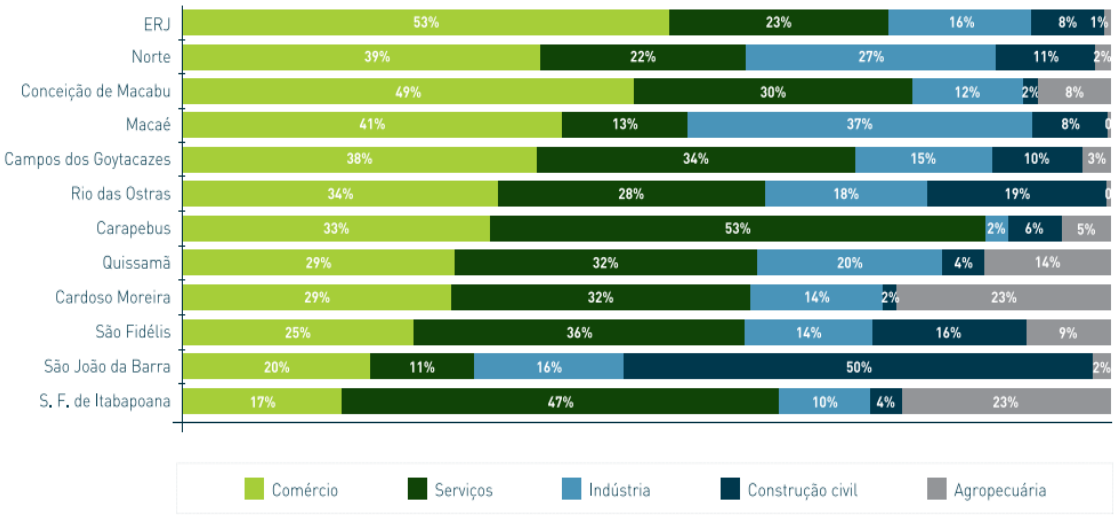
TOTAL FIXED EMPLOYMENT BY SECTOR AND COMPANY SIZE: RIO DE JANEIRO STATE, NORTH FLUMINENSE AND MUNICIPALITIES, 2012.

	TOTAL	INDÚSTRIA			CONSTRUÇÃO CIVIL			COMÉRCIO			SERVIÇOS			AGROPECUÁRIA		
		MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.	MICRO	PEQ.	MED. E GDE.
ERJ	3.688.909	85.137	120.582	370.378	35.266	62.933	188.873	250.051	313.403	287.882	288.983	471.050	1.190.933	13.853	6.017	3.568
Norte	234.777	4.913	9.033	49.158	3.643	4.952	16.532	18.335	18.393	15.043	12.443	22.140	56.179	2.184	814	1.015
Campos dos Goytacazes	75.484	2.811	4.416	3.843	2.231	3.188	2.016	9.511	9.147	7.231	5.168	8.938	14.702	1.137	312	833
Carapebus	403	9	0	0	1	23	0	110	105	0	67	67	0	21	0	0
Cardoso Moreira	627	26	64	0	10	0	0	136	64	0	62	39	82	95	49	0
Conceição de Macabu	1.831	64	153	0	32	0	0	294	166	87	163	242	486	144	0	0
Macaé	125.340	1.184	3.067	42.281	673	1.048	8.464	4.337	6.179	6.095	4.344	9.236	37.994	227	155	56
Quissamã	1.377	95	183	0	34	27	0	277	168	0	127	131	147	73	115	0
Rio das Ostras	18.967	461	478	2.392	490	515	2.688	2.024	2.014	1.359	1.750	2.525	2.207	46	18	0
São Fidélis	3.073	160	258	0	24	34	445	645	183	271	303	321	142	189	31	67
São Fco de Itabapoana	1.438	36	102	0	12	39	0	471	205	0	161	88	0	192	73	59
São João da Barra	6.237	67	312	642	136	78	2.919	530	162	0	298	553	419	60	61	0

Fonte: IETS, com base nos dados da RAIS/MTE. Notas: excluindo setores de administração pública e serviços domésticos. O Sebrae apresenta no seu Anuário do Trabalho para MPE 2010/2011 a definição do porte do estabelecimento em função do número de pessoas ocupadas e do setor de atividade econômica. Na indústria e na construção civil, as microempresas possuem até 19 ocupados; as pequenas, de 20 a 99; as médias, de 100 a 499; e as grandes, acima de 500 ocupados. Para comércio, serviços e agropecuária, as microempresas têm até 9 ocupados; as pequenas, de 10 a 49; as médias, de 50 a 99; e as grandes possuem mais de 100.

In relation to the municipalities it can be seen that 50% of the jobs in São João da Barra are in civil construction, being 2.7% of the jobs for the region. Agriculture represents 23% of fixed employment in Cardoso Moreira and São Francisco de Itabapoana. In Carapebus, retail employs 53% of total jobs for the municipality. Industry represents the greatest participation in Macaé, 37% which also has the highest percentage of jobs in services, 41%.

DISTRIBUITION OF FIXED EMPLOYMENT BY SECTOR RIO DE JANEIRO STATE, NORTH FLUMINENSE AND MUNICIPALITIES, 2012.



Source: IETS, Based on data from RAIS/MTE

The table below presents the number of establishments and fixed employment in accordance with size in relation to small businesses in the municipalities. It can be seen that Carapebus reduced the number of companies (-22.2%) yet increased the number of jobs (4.4%). Conceição de Macabu also lost small businesses (-8.4%), yet employment stayed practically unaltered (0.5%).

The greatest growth in small businesses was detected in Rio das Ostras (8.6%), and its employment, in Quissamã (14.3%). In Cardoso Moreira and São João da Barra there was a growth in small businesses, yet a drop in employment.

The highest growth rate among medium and large companies was in Quissamã (100%), São João da Barra (25%) and Rio das Ostras (21.9%). Quissamã had one company in 2011 then two companies the following year. This municipality also presented the greatest growth in employment in the MGE (77.1%). In Carapebus, the only MGE closed providing a negative growth of -100%. Conceição de Macabu did not have a MGE in 2011 and the following year received three medium and large companies creating 573 jobs.

% NUMBER OF ESTABLISHMENTS AND FIXED JOBS ACCORDING TO SIZE - RIO DE JANEIRO STATE, NORTH FLUMINESE AND MUNICIPALITIES

	ESTABELECIMENTOS		EMPREGOS	
	MPE 2012/2011	MGE 2012/2011	MPE 2012/2011	MGE 2012/2011
ERJ	2,6	4,7	3,1	4,7
Norte Fluminense	4,6	13,3	2,7	10,2
Campos dos Goytacazes	5,7	14,3	2,6	3,1
Carapebus	-22,2	-100,0	4,4	-100,0
Cardoso Moreira	5,7	0,0	-7,6	60,8
Conceição de Macabu	-8,4	..	0,5	..
Macaé	2,9	10,4	0,5	9,9
Quissamã	5,7	100,0	14,3	77,1
Rio das Ostras	8,6	21,9	11,5	29,5
São Fidélis	3,2	0,0	6,8	-6,3
São Fco de Itabapoana	4,3	0,0	1,8	9,3
São João da Barra	2,7	25,0	-4,2	29,7

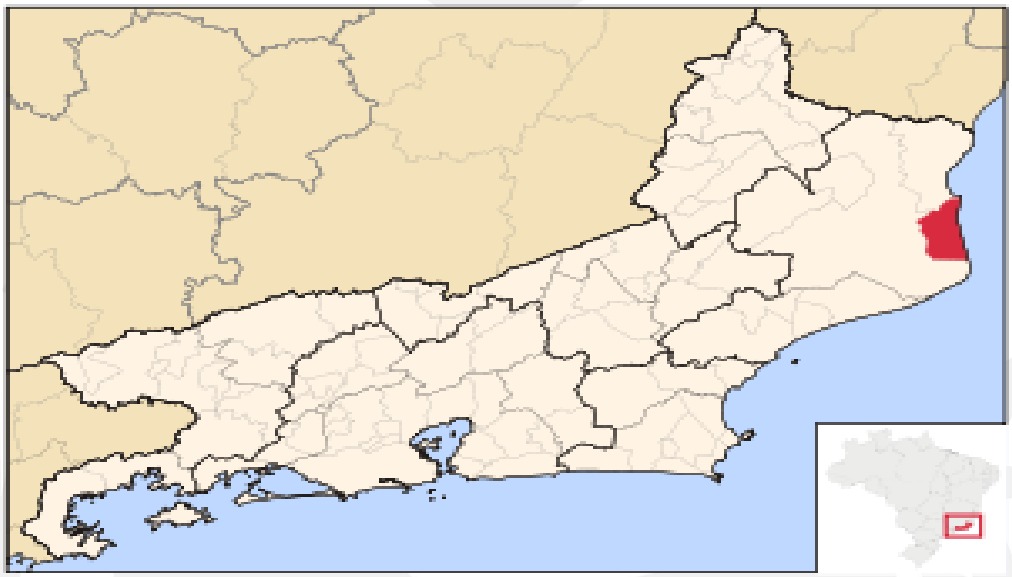
Fonte: IETS, com base nos dados da RAIS/MTE. Nota: (..) não se aplica dado numérico.

VIII - MUNICIPALITY OF SÃO JOÃO DA BARRA

The municipality of São João da Barra, where it is intended to implement the EPZ, has a total area of 455 km², corresponding to 4.7% of the North Fluminense regioncome on the order of São Francisco de Itabapoana, Atlantic Ocean and Campos dos Goytacazes. It's location is privileged in relation to the cities situated in the Triangle formed by Rio, Vitoria and Belo Horizonte where a large part of that GDP and service companies of the country are located, being

36 km from Campos, 142 km from Macaé, 231 km from Cabo Frio, 280 km from Vitória, 314 km from Rio de Janeiro and 509 km from Belo Horizonte.

São João da Barra



In 2015 the population of São João da Barra was 34,583 people, corresponding to 3.9% of the contingent for North Fluminense region, in the proportion of 98.3% men to every 100 women. The demographic density was 71.9 inhabitants per km², against 87.1 inhabitants per km² in its region

The urbanization rate was 78% population, compared to the previous decade the municipality population increased by 18.3%, the 25th highest growth in the state.

According to a survey, the municipality has 23,618 residences, of which 44% is occasional use, demonstrating strong touristic profile for the location. Furthermore, according to the census there were no residents located in the subnormal agglomeration. The total income for the municipality was R$347 million in 2015, 22nd in the state (the comparison does not include capital). Its current income has a fixed expenditure of 55% with the administrative costs.

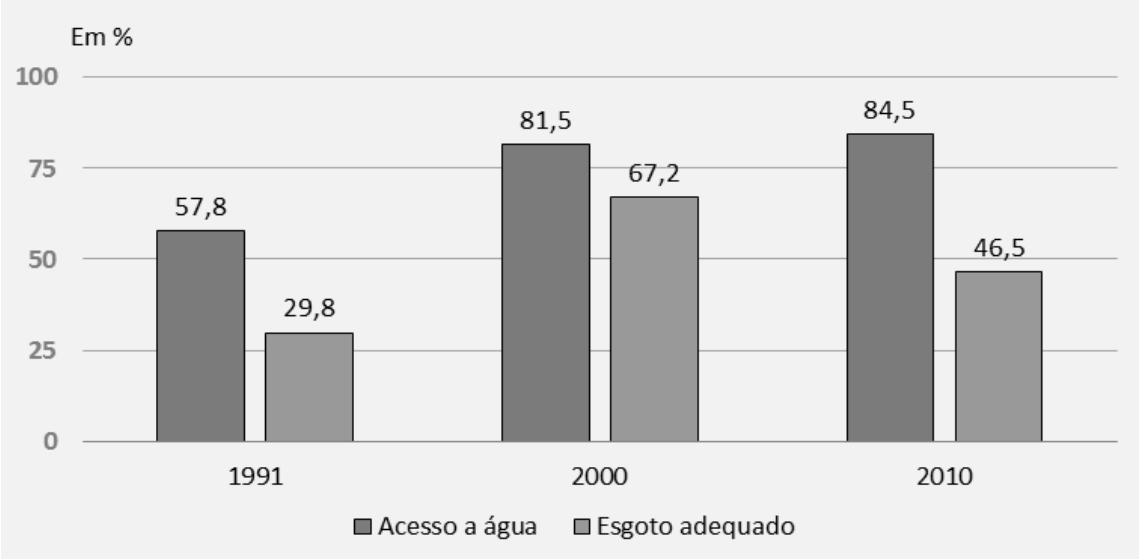
1 - ECONOMIC ASPECTS

In relation to income linked to oil, do municipality has 51% of its total income a sum of R$ 5,089.39 per inhabitant in 2015, first place in ranking for the state. The tax burden per capita of R$ 2,266.61 is the second highest in the state, where R$ 42.94 in rates (IPTU) (51st position) and R$ 1,772.67 in services (ISS) (second position). Count expenditure per capita is R$ 5,490.82 and the third for the state, against an investment per capita of R$ 530.79, number seven amongst the 91 others.

The municipality 9 post offices, for bank branches and two hotel establishments.

One relevant aspect in defining living standards is the municipality concentrates on sanitary conditions. The Brazilian monitoring report focused on development for the millennium showed an evolution in the indicators for "access to water" and "adequate basic sanitation" in São João da Barra, between 1991 and 2010, from the data published by IBGE in its 10 year census, shows a substantial improvement in the municipalitys' situation from 1991/2010.

% OF URBAN DWELLERS WITH ACCESS TO WATER CONNECTED TO SEWAGE NETWORK - 1991/2010



Source: MDG site, Online Reports

2 - SOCIAL ASPECTS

Education

In relation to the state and the northern region, São João da Barra has in general manner higher indexes within the respective areas.

The total number of enrollments for infant schools, elementary and middle school for São João da Barra, in 2014 was 9,324 students, having dropped to 9,120 in 2015, this presents a variation of -2.2% in the number of students.

Despite the small reduction the information gathered shows that the municipality counts on a public educational structure compatible with the population at school level, in accordance with the tables presented below, in reference to evolution in the number of establishments in that segment, teachers and initial enrollments, as well as proportion of students per teacher.

Infant school:

The municipal network handles 91% of the enrollments in infant schools in 2015. The total number of enrollments grew by 94% between 2010 and 2015.

Schools, teachers, enrollments and indicators – infant school – 2010/2015

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor no estado
10	25	42	615	14,6	17,2
11	28	52	710	13,7	16,7
12	26	81	1.005	12,4	15,0
13	29	114	1.212	10,6	14,1
14	31	119	1.227	10,3	13,1
15	30	125	1.196	9,6	13,8

Source: TCE/RJ

The number of teachers/child at the infant school index is -9.6 higher than that of the state at -13.8.

Preschool:

The municipal network of São João da Barra, which was responsible for 85% of the enrollments in 2015, presents the following profile:

School units, teachers, enrollments and indicators – preschool – 2010/2015

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor no estado
10	26	63	848	13,5	16,5
11	30	73	997	13,7	15,9
12	32	78	1.013	13,0	15,5
13	33	82	1.149	14,0	15,2
14	33	84	1.093	13,0	14,9
15	32	85	1.040	12,2	15,1

Source: TCE/RJ

There was a variation of 23% in the number of students enrolled in preschool between 2010/2015 and once more the number of students/teachers was better than that of the state.

Municipal elementary school

School units, teachers, enrollments and indicators – elementary education 2010/2015

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor no estado
10	38	370	5.837	15,8	23,1
11	38	415	5.718	13,8	21,9
12	39	423	5.810	13,7	21,6
13	40	467	5.893	12,6	20,7
14	40	492	5.847	11,9	17,2
15	40	477	5.673	11,9	19,7

Source: TCE/RJ

The number of enrollments in preschool showed a drop of 3% during the period, yet there was a substantial increase in the number of teachers, 28.9% which determined a good rate student/teacher, 11.9, while the state indicator was 19.7.

State elementary education

The state educational network had 11% of the students enrolled in 2015 and the table looks as follows:

School units, teachers, enrollments and indicators – elementary education – state network 2010/2015

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor da rede estadual no estado
10	6	117	1.662	14,2	17,2
11	6	110	1.473	13,4	17,0
12	6	102	1.400	13,7	16,0
13	6	100	1.166	11,7	13,7
14	6	100	863	8,6	11,5
15	6	98	661	6,7	11,9

Source: TCE/RJ

The municipal network counts on 77% of the volume of enrollments as can be seen from the data presented in the table below:

School units, teachers, enrollments and indicators – municipal network for elementary education 2010/2015.

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor da rede municipal no estado
10	28	230	3.589	15,6	24,9
11	27	263	3.639	13,8	23,5
12	27	276	3.806	13,8	23,9
13	28	318	4.053	12,7	23,0
14	28	344	4.304	12,5	20,6
15	36	385	4.363	11,3	21,4

Source: TCE/RJ

There was a 22% variation number of students during the period of improvement of proportion student/teacher.

Middle school

The number of enrollments oscilate in -1% during the period of 2010 and 2015, in contrast to the increase in teaching staff, influencing proportionally the ratio between students and teachers.

SCHOOL UNITS, TEACHERS, ENROLLMENTS AND INDICATORS
MIDDLE SCHOOL AVERAGE 2010/2015

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor no estado
10	6	111	1.226	11,0	15,1
11	6	119	1.175	9,9	14,6
12	6	109	1.170	10,7	14,3
13	5	113	1.122	9,9	13,6
14	7	143	1.157	8,1	11,5
15	8	154	1.211	7,9	12,8

Source: TCE/RJ

In relation to the state network, with 91% of the total enrollments in 2015 the table is as follows:

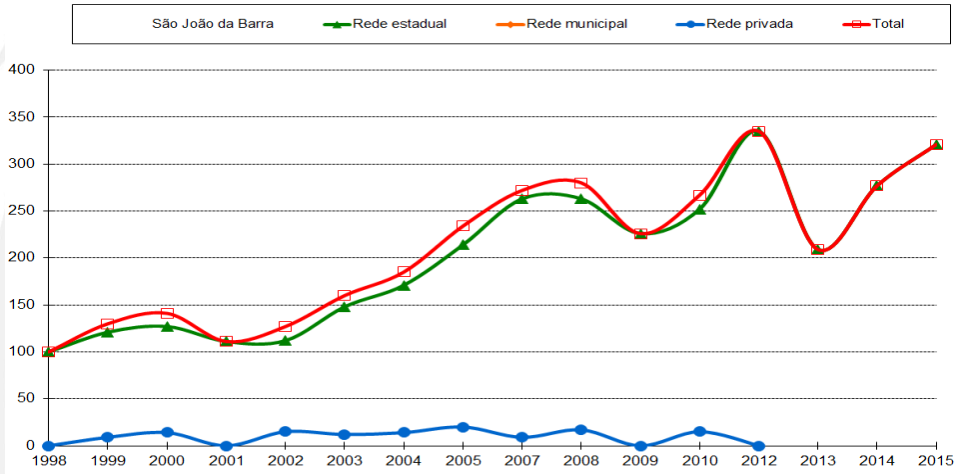
School units, teachers, enrollments and indicators – middle school – state network 2010/2015.

Ano	Nº de unidades	Nº de professores	Nº de matrículas	Rateio alunos/ professor no município	Rateio alunos/ professor da rede estadual no estado
10	5	106	1.164	11,0	16,0
11	5	105	1.138	10,8	15,4
12	5	100	1.162	11,6	15,1
13	5	113	1.122	9,9	14,3
14	7	143	1.157	8,1	12,6
15	7	151	1.101	7,3	13,3

Source: TCE/RJ

Middle school is responsible for 19% of students in the municipal network. There was a reduction of 5% in the quantity of students enrolled during this period, but an increase of 42.5% in the number of teachers.

The following graph shows the number of students that completed the course. The number graduated in 1998 was 100, increasing to 321 in 2015, with a variation of 221% for that period.



Source: TCE/RJ

In the education for young adults, São João da Barra had a total of 1202 students enrolled in 2015, where 24% in the state network and 76% in the municipal network. In 2014 there was no presidential bachelor degree.

- **Public health**

The size of the public health network in São João da Barrais compatible with the municipal population caring for every day cases in the majority. For cases of a more serious nature they are sent to Campos or Macaé.

The data presented is as follows, gathered on the DATASUS system refers to local networks and both human and material resources available in São João da Barra.

ESTABLISHMENTS BY TYPE - MUNICIPAL - DECEMBER 2015

Estabelecimentos por tipo	Quantidade
Central de regulação	1
Centro de atenção psicossocial	1
Centro de saúde/unidade básica de saúde	13
Clinica especializada/ambulatório especializado	5
Consultório	3
Farmácia	2
Hospital geral	1
Policlínica	6
Pronto socorro geral	5
Secretaria de Saúde	1
Unidade de serviço de apoio de diagnose e terapia	1

Source: TCE/RJ

The municipality has nine teams for family clinics and six for dental clinics.

HOSPITAL BED DISTRIBUITION December 2015

Ocupação do profissional	Quant.	SUS	Ocupação do profissional	Quant.	SUS
Assistente social	21	100%	Nutricionista	23	100%
Bioquímico/Farmacêutico	14	100%	Odontólogo	32	91%
Cirurgião geral	6	100%	Pediatra	31	100%
Clínico geral	90	94%	Psicólogo	25	100%
Enfermeiro	113	99%	Psiquiatra	12	100%
Fisioterapeuta	63	94%	Radiologista	11	91%
Fonoaudiólogo	6	100%	Sanitarista	0	0%
Ginecologista/Obstetra	39	100%	Outras especialidades médicas	52	94%
Médico de família	11	100%	Outras ocup. de nível superior rel. à saúde	9	100%

Source: TCE/RJ

Practically all the hospital beds are used by SUS (Governmental healthcare).

The national equipment register for the health service provides data about existing equipment, those in use and those that are available to SUS.

The table below presents an inventory of existing equipment:

PHYSICAL RESOURCES - EQUIPAMENT - DECEMBER 2015

Descrição	Quantidade existente	% à disposição do SUS
Audiologia	0	0%
Diagnóstico por imagem	18	44%
Infraestrutura	11	100%
Métodos ópticos	3	100%
Métodos gráficos	8	63%
Manutenção da vida	138	25%
Odontologia	135	82%
Outros	20	65%

Source: TCE/RJ

The municipality the following structure in human resources for healthcare:

HUMAN RESOURCES - FUNCTIONS - DECEMBER 2015

Ocupação do profissional	Quant.	SUS	Ocupação do profissional	Quant.	SUS
Assistente social	21	100%	Nutricionista	23	100%
Bioquímico/Farmacêutico	14	100%	Odontólogo	32	91%
Cirurgião geral	6	100%	Pediatra	31	100%
Clínico geral	90	94%	Psicólogo	25	100%
Enfermeiro	113	99%	Psiquiatra	12	100%
Fisioterapeuta	63	94%	Radiologista	11	91%
Fonoaudiólogo	6	100%	Sanitarista	0	0%
Ginecologista/Obstetra	39	100%	Outras especialidades médicas	52	94%
Médico de família	11	100%	Outras ocup. de nível superior rel. à saúde	9	100%

Source: TCE/RJ

In accordance with the previous information, a majority of the specialized professions provide services to SUS

3 - Welfare

The welfare system – SUAS, is decentralized and participative, and defined by nature the objective of guaranteeing life, reduction of damages and prevention of risks is mainly focused on impoverished vulnerable families.

The system works on two levels of protection: basic social protection, provided at the social assistant centers of reference – Cras, and special social protection (divided into medium and high complexity), provided at the specialized social assistance centers of reference – Creas.

The index for management of the single decentralized social assistance system – (IGD-Suas-M) is an instrument that determines the quality of the decentralized administration of the programmed, designed services and social benefits within the municipalities and measures the results of the SUAS decentralized system based on the management implementation, execution and monitoring of services, programs, projects, and welfare benefits, as well as in the intersectoral articulation.

The IGD SUAS-M varies from 0 (zero) to 1 (one) and is calculated in accordance with the welfare reference centers development index–ID Cras Médio and the financial execution of the welfare fund for the municipality.

The table presented below presents the ranking of the IGDSuas-M where the municipality of São João da Barra obtained 0.69 placing it in 24th among the 92 state municipalities.

IGDSUAS-M RANKING - FOR RIO DE JANEIRO STATE MUNICIPALITIES

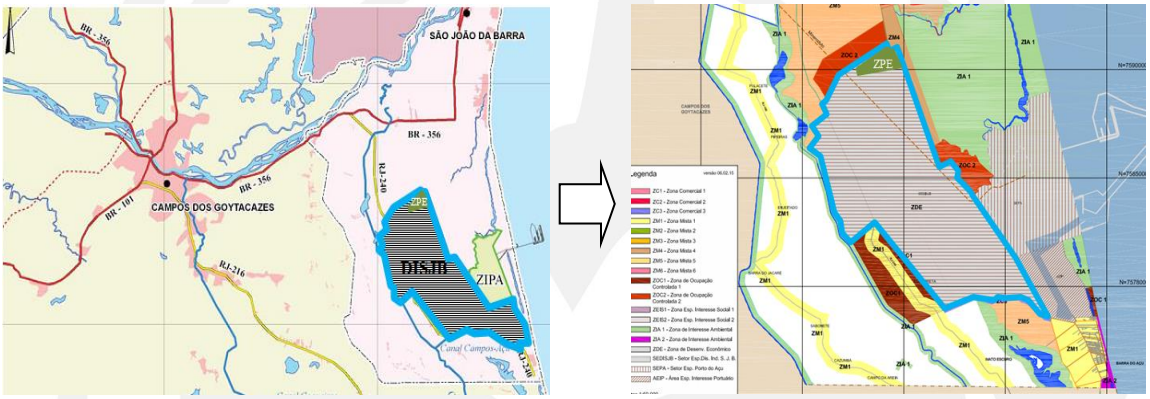
1º - Mendes	0,87	24º - Cabo Frio	0,69	46º - Miracema	0,60	70º - S. Pedro da Aldeia	0,47
2º - Cardoso Moreira	0,85	24º - Eng. Paulo de Frontin	0,69	46º - Rio Bonito	0,60	71º - Cachoeiras Macacu	0,46
3º - Pinheiral	0,84	24º - Natividade	0,69	49º - Macaé	0,59	71º - São José de Ubá	0,46
4º - Laje do Muriaé	0,82	24º - São João da Barra	0,69	49º - Magé	0,59	71º - Seropédica	0,46
5º - Duas Barras	0,80	28º - Mesquita	0,68	51º - Armação dos Búzios	0,58	74º - Paraíba do Sul	0,45
6º - Carapebus	0,78	28º - Niterói	0,68	51º - Itaboraí	0,58	75º - Miguel Pereira	0,44
6º - Tanguá	0,78	28º - Quatis	0,68	51º - Piraí	0,58	75º - São João de Meriti	0,44
8º - B. Jesus do Itabapoana	0,76	28º - Resende	0,68	54º - Japeri	0,57	77º - Silva Jardim	0,43
8º - Santa Maria Madalena	0,76	32º - Campos dos Goytac.	0,67	54º - Rio das Ostras	0,57	78º - Macuco	0,40
10º - Carmo	0,75	32º - Com. Levy Gasparian	0,67	54º - Varre-Sai	0,57	78º - Sumidouro	0,40
11º - Aperibé	0,74	32º - Quissamã	0,67	57º - Barra Mansa	0,56	80º - Valença	0,39
11º - Barra do Piraí	0,74	32º - Vassouras	0,67	57º - Trajano de Moraes	0,56	81º - Paty do Alferes	0,38
13º - Queimados	0,73	36º - Porto Real	0,66	57º - Mangaratiba	0,56	82º - Nova Friburgo	0,37
13º - Rio Claro	0,73	36º - Três Rios	0,66	60º - Duque de Caxias	0,55	83º - Rio das Flores	0,36
13º - São Fidélis	0,73	38º - Araruama	0,65	60º - Itaocara	0,55	84º - Arraial do Cabo	0,33
16º - Casemiro de Abreu	0,72	38º - Itatiaia	0,65	62º - Nova Iguaçu	0,54	84º - Petrópolis	0,33
16º - Paracambi	0,72	40º - Areal	0,64	62º - S. Franc. Itabapoana	0,54	86º - Teresópolis	0,29
16º - São Sebastião do Alto	0,72	40º - Belford Roxo	0,64	64º - Iguaba Grande	0,53	87º - Paraty	0,25
19º - Santo Antônio de Pádua	0,71	40º - São Gonçalo	0,64	64º - Porciúncula	0,53	88º - Italva	0,19
19º - Sapucaia	0,71	43º - Cantagalo	0,62	66º - Nilópolis	0,51	89º - S. José Vale R. Preto	0,13
21º - Angra dos Reis	0,70	43º - Itaguaí	0,62	66º - Maricá	0,51	90º - Cambuci	0,00
21º - Conceição de Macabu	0,70	43º - Volta Redonda	0,62	68º - Bom Jardim	0,49	Cordeiro – sem informação	
21º - Saquarema	0,70	46º - Guapimirim	0,60	68º - Itaperuna	0,49		

Source: TCE/RJ

IX - AÇU EPZ CHARACTERISTICS

1) Physical aspects

The Açu EPZ covers an area of 1,821.67 ha, and is located inside the industrial zone of São João da Barra, denominated EPZ– Economic Development Zone by legislation for use of municipal soil, and is entirely occupied by the industrial district of São João da Barra, as per the figures below:



SOURCE: EIA/RIMA

2) The area where the EPZ will be installed

The area where the EPZ will be installed belongs to the Rio de Janeiro State Industrial Development Company – CODIN, of mixed government and private interest and administered indirectly by the Rio de Janeiro state, together with the executive office of the state and economic development. The purpose of CODIN is to create and commercialize industrial districts as well as support the implementation of industry within the state

In partnership and alignment with public entities and the business sector, CODIN promotes economic and social development of the state and municipalities of Rio de Janeiro by attracting investment expansion offers of alternative business locations, solution for tax and financial incentives.

In this form the state of Rio de Janeiro created the district of São João da Barra through state decree number 41.584/2008, 41 585/2008 and 41.915/2009,which were later modified by decrease number 41.915/2009, 41.998/2009 that declare

the public utility assets in favor of the Rio de Janeiro State Industrial Development Company – CODIN.

For the trusted compliance of legal and administrative posterior acts, the Public Notice Decree 42.422/2010 that deliberates the competence of CODIN for said purposes is hereby authorized to acquire friendly agreements before or after proposed actions of removal from the DISJB property.

As such 470 compulsory purchase orders from occupancy cases were brought (as attached) in reference to the whole DISJB. As for the polygon highlight for the entire Export Processing Zone, treated as 11 legal suits all duly issued on possession, in accordance with the documents hereby gathered. Reiterating that the lots 208A and 208B, as well as 214B and 214C, were made in one single auto issuance each (attached)

As such, CODIN acquired possession of the facilities and awaits final decision which occurs through appropriate settlement. Notably that which was expertly performed by the APCA (surveyor's office) pages 647/656 administrative proceedings nº E-12/169/40/2018 and, until final sentencing of the aforesaid judicial proceedings will not adopt assessment of the contemporary appraisal reports of the facilities, due to, as mentioned in the concept of "allotment of land" of the PROMISE (attachment IV), the legal situation and the respective issuance of data in possession by the GRANTOR are written in the aforesaid judicial proceedings in relation to the inclusions pursuant to attachment one of that PROMISE, it being understood that any eventual costs for removal of third parties shall be at the EXCLUSIVE cost of the GUARANTEE, which was also provided in the technical report nº 70/2019, pgs. 647/656, that states "the evaluation value of the area in the conditions found at the time the expropriation decree was issued, and not at the market value or its eventual economic utility" in accordance with the judicial understanding issued by the rendered agreement under the 2nd Civil Court of the TJRJ, appellate civil case nº 8.293/95, of the report by eminent appellate judge Sérgio Cavalieri Filho.

Supported by decree 42442/2010, CODIN sought private initiative as a way to attract investments for the implementation of the DISJB, which resulted in the signing of the purchase and sale commitment under terms for cessation of possession of those properties. Notwithstanding, specifically the polygonal aforementioned private agreements have already been signed for dissolution, together with the present document (attached).

Whereby CODIN under mandate by the state of Rio de Janeiro, is legally receiving possession of the properties selected under the DISJB, said properties are apt for the implementation of the export processing zone.

The implementation model and administration of the Açu EPZ shall be contrived, whereby though it was not presented under the present proposal item "proof of financial capacity", as it is under the responsibility of the appropriate company to execute the project, which will only be selected after enactment of the decree establishing the EPZ, and in accordance with the legislation within a maximum of 90 days.

The public announcement of the public tender to select the company, demands that said company has financial capacity to cover the costs of the project.

Equally the statute of the EPZ was not contained within the draft of this document, as it will be elaborated by the company winning the bid, observing that, whereever necessary, all institutional aspects related to the implementation and administration of the EPZ shall be obligatorily incorporated.

Benefits to the Regional Economy

One of the benefits the EPZ shall bring to the regional economy will be the income received by the employees from the installed companies of the EPZ. In addition to direct employment, the industries will require an ample variety of services, and part shall be channeled into the regional companies.

Another aspect to be considered is a part of the supplies to be used in the productive process by the EPZ companies to be acquired on the local market, as in the case of preparation of decorative granite, where the raw materials are situated in the state of Espirito Santo and North Fluminense, as well as the production of coffee for exportation and pieces and components for the exploration and production of oil, the main activity of the region.

In the medium-term the EPZ shall contribute to increase in movement of cargo through the Açu port, expanding the chain of companies that gravitate around the port activities, thus creating new jobs and income.

The local government of São João da Barra will be benefited through increase in tax revenue, via IPTU (rates) and ISS (service tax) generated by the EPZ industries, and equally provided by the activities correlated to the support to the companies installed in the exportation processing zone.

3) Specifications of the Area

The area is made up by a land surface of 182.167436 ha, being that its total perimeter is 5333.10 m. The bargain begins at point FG5-P-0093, defined by coordinates UTM E=283.880,87 and N=7.590.834,90 situated on LOT A-1 of the industrial district in São João da Barra.

From this point, follows at an angle of 108º34'28"for distance of 263.57 m, as far as point FG5-P-0094, defined by coordinates UTM E=284.130,71 and N=7.590.750,93, from here it follows at an angle of 168º19'47" for a distance of 883.34 m, to point FG5-P-0095, defined by coordinates UTM E=284.309,39 and N=7.589.285,85.

from here follows at an angle of 235º18'09" and a distance of 1527.91 m, upto point FG5-P-0096, defined by coordinates UTM E=283.053,19 and N=7.589.016,10.

From here it follows at an angle of 244º37'37" And a distance of 11.18 m, up to point FG5-P-0097, defined by coordinates UTM E=283.043,09 and N=7.589.011,31.

from here it follows at an angle of 313º49'18" and a distance of 484.48 m, to point FG5-P-0098, defined by coordinates UTM E=282.693,54 and N=7.589.346,77. From here it follows at an angle of 347º28'03" and the distance of 188.07 m, to point FG5-P-0099, defined by coordinates UTM E=282.652,73 and N=7.589.530,36.

From here it follows at an angle of 6º00'05" and a distance of 277.61 m, until point FG5-P-0100, defined by coordinates UTM E=282.681,75 and N=7.589.806,44.

From here it follows at an angle of 3º28'55" and a distance of 321.33 m, until point FG5-P-0101, defined by coordinates UTM E=282.701,27 and N=7.590.127,18.

From here it follows at an angle of 59º02'16" and a distance of 1375.62 m, until point FG5-P-0093, the initial vertex of this perimeter description. All coordinates provided herein are geo-referenced on the Brazilian Geodesic System, and can be found in the UTM system, in accordance with the central Meridian 39° WGr, Using datum SIRGAS2000. All angles and distances, areas and perimeters were calculated on the UTM protection plan.

The implementation and administration model of the Açu EPZ will be elaborated which is why the "proof of financial capacity" has not been presented in the proposal, as the company in charge will only be selected after the enactment of decree to create the EPZ, within a deadline of 90 days. The announcement of the public tender to select the company, demands proof of financial capacity to cover costs arising from enabling the project

Equally not contained within this document is the draft of the EPZ statute, as it will be prepared by the company chosen in the bid, observing that it shall

incorporate, whenever necessary, all institutional aspects relevant to the implementation and administration of the EPZ.

Effects of the Project on Regional Economy

One of the benefits of the project for the regional economy will be the income received by the people who will work in the company's installed in the EPZ. Apart from the direct jobs, the industries will demand an ample variety of services, part of which shall be supplied by local companies.

Another positive aspect is that in the medium term EPZ shall contribute to an increase in the commercial handling of the Açu port, mobilizing a chain of companies that gravitate around the port activities, creating with it employment and income.

- **Estimated Investments**

The Açu EPZ project represents an area of 1,821,674.6 m², where 1,753,005.21 m² will be separated into lots, and will be implemented in three separate stages in accordance with demand for installation by the companies.

The first stage understands an area of 434,421.05 m², however, the street plan shall occupation of an additional 401,790.07 m² to be destined for the second stage of the enterprise, without implying extra cost for infrastructure to incorporate itself into the referred to area of the first stage, which will make a total of 836,211.12 m² of industrial and service lots.

Full implementation of the first stage, there is a forecasted investment of R$ 40,677,000. From the total around R$ 1,500,000.00, 3.68%, will be destined for plans, management and approvals.

ITEM	1st STAGE
TOTAL INVESTMENT	**40.677.000**

	ITEM	UN	QTY	1st STAGE
1	**PLANS, WORK SUPERVISION AND LICENCING**	**V**	**-**	**1.500.000**

	ITEM	UN	QTY	1st STAGE
2	**INSTITUTIONAL INFRASTRUTURE**			**15.931.000**
2.2	Inland Revenue building	m²	600	1.034.000
2.1	Administration, restaurant and services building	m²	1.000	1.723.000
2.3	Stockyard	m²	5.000	1.520.000
2.4	Parking lot	m²	5.000	1.000.000
2.5	Storage shed	m²	5.000	2.000.000
2.6	Equipment, vehicles, forklifts, weighing machines, guard rooms and security and safety systems	V		7.315.000
2.7	Perimeter fence of the total area (all three stages)	m.	5.333,1	1.339.000

	ITEM	UN	QTY	1st STAGE
3	**INTERNAL INFRASTRUTURE**	V		**9.488.000**
3.1	Landfill in accordance with surface grading	m3	12.000	613.000
3.2	Implementation of small drainage galleries	m.	1.500	750.000
3.3	Implementation of internal tarmaced streets, curbs, guttering and water shared drainage of the streets and sidewalks.	m.	1.200	3.060.000
3.4	Implementation of the portable water distribution network	m.	1.200	538.000
3.5	Implementation of the basic sanitation	m.	1.200	1.224.000
3.6	Implementation of the sewage treatment plant	un		2.385.000
3.7	Implementation of the 34.5 KV power supply	m.	1.200	538.000
3.8	Implementation of the fiber-optic network	m.	1.200	305.000
3.9	Implementation of the green area (lawns and saplings)	m²	5.000	75.000

	ITEM	UN	QTY	1st STAGE
4	**EXTERNAL INFRASTRUCTURE**			**11.258.000**
4.1	Water adduction	m.	3.870	1.942.000
4.2	Implementation of the 34.5 KV powerline	m.	11.900	5.331.000
4.3	Implementation of the fiber-optic network	m.	3.870	985.000
4.4	Construction of the treated sewage outlet	V		3.000.000

	ITEM	UN	QTY	1st STAGE
5	**COMPLEMENTARY AND SUPPORT SERVICES**	**V**	**-**	**2.500.000**

The cost in relation to the plans, included in sub item institutional infrastructure, were estimated at R$ 15,931,000.00, this item represents the heaviest financial cost, 39.16%.

In it or installations, equipment, sheds and yards destined for the operation of the Inland Revenue and administrator of the EPZ, as well as the installation of the perimeter fence for the EPZ have been considered.

Cost in relation to implementation of internal infrastructure was estimated to be R$ 9,488,000.00, which corresponds to 23.32% of the total.

The comparatively lower cost installation of the external infrastructure is due to the architectural function design adopted for land subdivision of the project, with only 1200 m of roadways in the first stage will allow access.

- **Physical timeframe**

The timeframe presented below forecasts a period of 36 months for implementation of the project. However, it is possible that the administrator decides to perform the works in less time, which is feasible. Should this happen, the deadline for the various stages will be reduced, yet the sequence for implementation of the project shall remain basically the same

Activities	Trimesters											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
Creation of the administrator												
Customs project												
Directive plan												
Elaboration and approval of projects												
Concession of installation license (IL)												
Civil works												
Inland revenue customs and excise area												
Installation proposals												
Company installation												

Obs: Installation license (IL) refers only to the infrastructure works, as the enterprise already has a license.

X - LOGISTIC SUPPORT

In accordance with the above, the region selected for the implementation of the EPZis due in grand part to the excellent logistics offered, that meets the logistic demands of a majority of interested companies as detailed below:

Port system

- **Açu Port**

The EPZ area is situated 3 km from the Açu Port, both of which are situated within the DISJB, where the companies probably carry out the greater part of their operations for export. Additionally, the EPZ companies may use the parts of Vitória and Rio de Janeiro as alternatives.

The Açu Port covers an area of 90 km², two terminals, one offshore, T1, and another onshore, T2 that started activities in October 2014, already working as 4th private terminal for internal cargoes (data Antaq).

During 2016 the Açu port complex received a total of 966 merchant vessels. Projecting as a base the Martin concept of port – industry, it has a retro area for warehousing of products waiting transport. In the strong retro area are a number of companies that utilize the competitive, safe and integrated logistics solutions the enterprise offers.

Source: Açu Port Site

Terminal T1 is dedicated to handling iron ore and oil, with an access wharf of 3 km, peers, access channel and turning basin. The port railway began in October 2014 to operate in the iron ore terminal of the port, being that only in 2016, 16 million tons of iron ore were handled, yet it has a capacity to move 26.5 million tons per year. The product arrives at the port by way of mineral duct, which connects the mine in Conceição do Mato Dentro (MG) with a terminal.

With a depth of 20.5 m the ion or terminal can receive ships Panamax and Capesize (220 thousand tons). The oil terminal (T-OIL) has three specialized births for ship to ship operations with the capacity to handle 1.2 million barrels per day. The first operation of T-OIL was for BG E&P Brasil Ltda., A subsidiary of Royal Dutch Shell, which has a contract for transshipment of 200,000 barrels of oil per day, the equivalent of about 20% of the terminal's daily capacity.

Initially transshipment operations were carried out by capesizes vessels, yet with the dredging of the terminal to 25 m larger vessels could moor in the terminal, even the Very Large Crude Carrier – VLCC (320,000 tons).

Terminal T2 was installed beside a navigation canal of 6.5 km length, 300 m with and 14.5 m depth, providing 13 km wharf, handling project Cargo, bauxite

and coke, it can also handle containers, rocks, agricultural grains, vehicles, bulk liquids and solids, oil products and general cargo. The terminal also has an area focused on the operational support industry and E&P for oil and gas.

Among the clients already installed in the Açu Port is the American company Edison Chouest Offshore (ECO), recognize today as the most diverse and dynamic supplier of offshore Marine transport solutions in the world. With a wharf of 1030 m, the base will have 16 births, shipyard for its own and third-party repairs. This will be the largest offshore support base in the world.

Other companies also already operate the units in Açu Port Terminal 2, such as American NOV, world leader in mechanical component supply for land and maritime bore drilling, which has installed a unit for the production of flexible piping. The unit has been in operation since 2014, and has the capacity to produce 250 km of flexible piping per year, as well as an area for storage and testing material.

Technip, which offers technological solutions and services for developing deep-sea fields, offshore installations and onshore processing units, it also has been operating since 2014 a unit at Açu Port. The company has constructed its largest flexible piping production unit on-site, with a 500 m wharf front and 299,800 m² total area.

The American InterMoor, global leader in supplying anchoring, mooring and sub aquatic services offers state-of-the-art solutions for mobile platforms and offshore installation services, is also in operation. The company built a unit that offers logistic support and specialized services for the oil and gas industry.

In 2016 operations at TECMA – Terminal de Combustíveis Marítimos do Açu, by BP Marine began, that carries out activities in importation, exportation, sales, storage, mixture and distribution and/or sales of maritime fuel. This center for fueling mixed demands of a huge selection of sizes and types of ships, PSVs

(Platform Supply Vessels) and coastal and long-distance shipping with fuels such as marine diesel (MGO–Marine 'Gas Oil'). The unit began operations selling Marine gas oil.

- **Rio de Janeiro Port**

The port of Rio de Janeiro is located on the West Coast of Guanabara Bay, and is composed of 6740 m of continuous wharf and a 883 m. peer perimeter. The port contains 10 external warehouses (totaling 65,400,000 m²) and eight covered yards, totaling 11,000 m² with a capacity to store 13,000 tons. There are three terminals for private use for fuel and one for chemicals. Its administration is under Companhia Docas do Rio de Janeiro.

The area under the influence of the port covers mainly the states of Rio de Janeiro, São Paulo, Minas Gerais, Espirito Santo and areas of southeast Goiás and south of Bahia.

Access to the Rio de Janeiro report is via

- **Highways:** BR-040, BR-101, BR-116, RJ-071 and RJ-083.
- **Railway:** Central Atlantic Railway (FCA-old SR-2 of the RFFSA), MRS–Logística (old SR-3 of the RFFSA) and Campos (FCA).
- **Maritime:** The entrance to the port is 1.5 km wide with a minimum depth of 12 m, and the access channel is 18.5 km long, minimum of 50 m wide and 17 m deep.

The main cargoes embarked at the Rio de Janeiro port are:

Bulk solids – wheat and pig iron; bulk liquids – oil and oil products; and general cargo – containerized, steel products, paper, sugar and roll-on roll-off cargo (vehicles).

1) Airports:

The companies installed in the EPZ can count on airport support from Vitória 278 km north, Cabo Frio 235 km south and Rio de Janeiro Tom Jobim airport 316 km away.

Vitória Airport

Vitória Airport operates domestic flights passengers and international flights cargo, receiving a daily average of 10,655 people, among them passengers and employees of the companies that operate the airport system, it has the capacity to receive medium-sized and large size aircraft such as ATR-72, the Boeing 737 and the Airbus A319/Airbus A320.

It also receives executive jets and helicopters has direct daily flights to airports Congonhas and Guarulhos (São Paulo), Santos Dumont and Galeão (Rio de Janeiro), Confins (Belo Horizonte), Brasília, Salvador and Campinas. In 2016, the airport of Vitória was awarded and certified to operate with aircraft with the following codes 4C, A319, A320, A321, B737 and B767-300 cargo.

Its international terminal for cargo provides a strong box, refrigerated chambers, storage or dangerous cargo and radioactive material. In 2016 it handled 2580.2 times of cargo composed mainly of electronics, telecommunication equipment, clothing, cosmetics, medication and industrial supplies.

The passenger movement reached 3,583,875 people in 2015, dropped to 3,120,166 passengers in 2016 due to economic recession. The data in the table below includes invocations and disembarkation's passengers at Vitória airport on regular and irregular flights.

Passenger movement

Ano	Movimento	Variação Anual	Participação na Rede
2013	3.450.736	-5,27%	3,26%
2014	3.522.674	2,80%	3,12%
2015	3.583.875	1,74%	3,19%
2016	3.120.166	-12,94%	2,98%

In the same way recession affected the movement of aircraft, there was a drop of almost 30% between 2014 and 2016.

Annual movement of aircraft (landings and takeoffs)

Ano	Movimento	Variação Anual	Participação na Rede
2013	58.504	-8,27%	2,91%
2014	60.144	2,80%	3,04%
2015	58.706	-2,30%	3,23%
2016	46.737	-20,46%	2,95%

Situation of the airport before and after extension work was concluded:

	Atual	Novo
Área do terminal de passageiros	6.270 m²	26.578 m²
Pontes de Embarque	0	6
Pontes de Embarque Remotas	6	5
Estacionamento de veículos	600 vagas/7.385 m²	1.067 vagas/35.747 m²
Pista de pouso e decolagem (Podem eventualmente operar simultaneamente)	1.750 x 45 m	1.750 x 45 m e 2.058 x 45 m
Pátio de aeronaves	44.400 m²/06 aeronaves	51.000 m²/08 aeronaves
Capacidade de passageiros por ano	3.300.000	8.400.000
Pontos Comerciais	12	75
Balcões de Check-in	25	31

Cargo from overseas business is 99% for the importation of products.

Annual air cargo movement (t) – cargo terminal (TECA)

Ano	Importação	Participação	Exportação	Participação	Total	Participação
2013	5.244	3,12%	85	0,11%	5.329	1,10%
2014	3.892	-	115,1	-	4.007,10	-
2015	3.174	4,04%	102	0,27%	3.276	1,14%
2016	2.558,9	-	21,3	-	2.580,20	-

Macaé Airport

140 km from São João da Barra, the Macaé airport is basically used for helicopters that fly between the Petrobras maritime bases in the Campos Basin.

It is considered the largest domestic oil exploration base in Brazil, the Macaé airport handles 60,000 landings and takeoffs. In 2007, it registered a record of more than 400,000 passengers in its facilities (of these, around 98% were for offshore activities). The airport complex has 480,000 m², being 41,000 m² the aircraft apron and 45 positions for parking.

Cabo Frio airport

Situated 235 km from the Açu Port the Cabo Frio airport is administered by the company Costa do Sol Operadora Aeroportuária S/A, and is the fifth largest in the country in cargo area with the following facilities:

- Two passenger terminals (TPS) for 300 passengers
- Parking for 100 vehicles
- Service Rampa (Pax and Cargo)
- Fuel depot for aircraft – GAV 100/JET A1
- Traffic control room (AIS room)
- Air cargo terminal – TECA (18,600 m² covered)
- Customs – 38,000 m²
- Refrigerated container facilities
- One refrigerated container
- Refrigerated deposit for medication

Main characteristics

Aerodrome class D
Paving durability 76/F/C/X/T;
Operational conditions: IFR and VFR
Apron for embarkation and disembarkation: 40,000 m²
Landing direction indicator: Winsock
Rotating landing light: yes
NBD: Frequency 200 kHz range 45 miles
Working time: H12 Other HR O/R
Firefighting capacity: Cat-9

Rio de Janeiro airport – Tom Jobim

The Tom Jobim airport is the main exit port for Brazilian export products, including perishables and shoes. Its warehousing has an area of 8,000 m², 12 bays or offloading trucks and refrigerated warehousing for temperature control products.

RIO Galeão administration company hands over the cargo to the airline company or highway transport so that pallating of the cargo may be done in accordance with the airline company agents orientation and supervision. All the equipment is weighed on dispatch, before embark, for balancing and safety of flight. The pallating process is performed by RIOgaleão Cargo, airline company or company contracted by it.

After confirmation of embarkation of the cargo in the Siscomex system, the carrier sends electronic data of the embark to the central bank information system SISBACEN, for issue of the exportation receipt – CE.

The importation warehouse is 36,000 m² and dedicated to receiving products from abroad, enabling it to store perishable products, high value products, life

animals, large volume cargoes and dangerous cargoes. The terminal is notably one of the main ports of entrance to the country for industrial cargo from the chemical, pharmaceutical and oil and gas industries.

It also has a transit elevator warehouse with 6,000 pallet positions for general cargo and 17,000 m^3 for controlled temperature cargo. The whole operation is done automatically which facilitates movement and guarantees a high standard of quality and safety.

The RIOgaleão Cargo has one of the biggest facilities dedicated to storage of classified cargoes such as dangerous cargoes with an area of 900 m^2 specialized and without restriction to category. In accordance with the IATA regulations the warehousing segregates cargo in accordance with compatibility among class risk for each product. Furthermore, 100% of the personnel are trained to international standards for handling this type of cargo.

The airport has a 17,000 m^3 acclimatized complexwith the capacity to store goods of varying temperatures and separation in accordance with local legislation in force and good practice for climate control.

The cargo area also has TECA Farma 2 with two independent corridors of temperatures between 2ºC to 8ºC and 16°C to 22°C with a total of 1318 storage positions. With 12,420 m^3, all handling and storage inside the complex is completely automated, there is an antechamber with specific connected bays that guarantee the integrity of the temperature when loading deliveries on the highway carrier.

RIOgaleão has recently changed its whole fleet of forklifts and other cargo handling equipment. The new fleet of equipment has the capacity to handle up to 16 tons.

Its terminal has an exclusive area for placing specific seals for importation on determined products while these are still under the customs and excise control.

The cargo complex has a large yard for maneuver, with the capacity to receive the largest transport vehicles on the market. Furthermore, there are four leveling bays, which allows for loading and offloading agility of the vehicle.

The great differential of RIOgaleão Cargo is its apron for cargo aircraft. Apart from having the longest runway in the country 4,000 m, it is nine positions for aircraft dedicated to this type of operation. The shared has an exclusive area for storage in envirotainers with their own energy supply.

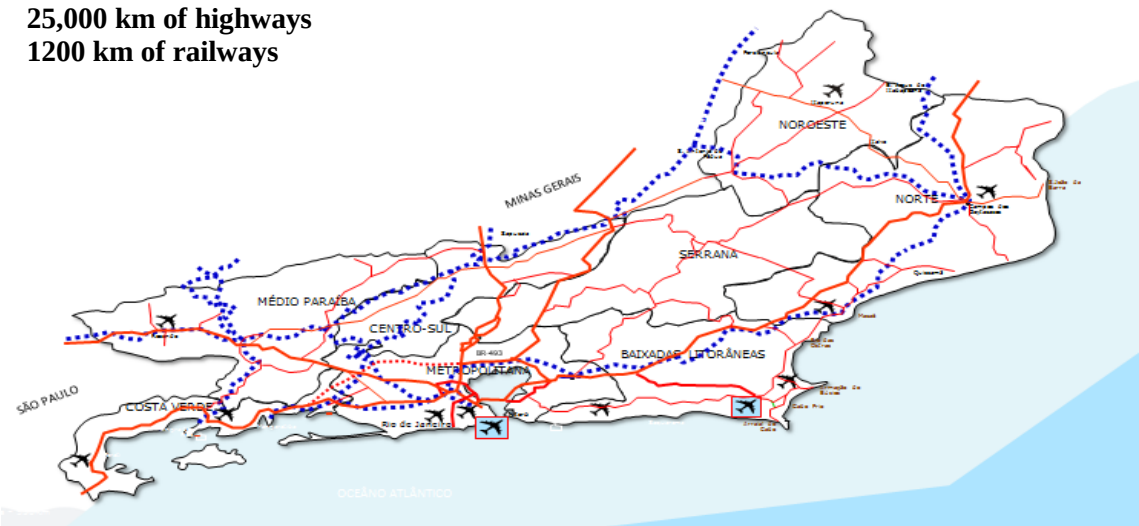
The terminal is apt to operate the most varied types of special customs regimes for importation and exportation, such as Linha Azul, Recof, temporary admission, drawback, customs transit, REPETRO and re-exportation.

In accordance with its characteristics the RIOgaleão Cargo provides special operations to meet the necessities of its clients.

2) Railroad transport

The intermodal map of the mesoregion North Fluminense shows the multiplicity of traffic available to interconnect the municipality of São João da Barra with other cities around it, through state and federal paved roads and air transport.

The municipality of São João da Barra it's only 45 minutes from Campos dos Goytacazes by road. Railways and forms complete the intermodal system in the region, and is provided with a privilege territorial location on the Atlantic coast.



Source: DNIT

- **Highway network**

The highway system in Rio de Janeiro state covers about 25,000 km. Most of them are paved and in good operating condition and integrated to a multi-local national network.

Source: DNIT

The BR-356,one of the main federal highways, 472.9 km in length, starts Belo Horizonte and ends in São João da Barra, is completely paved, and allows São João da Barra the fast connection to Campos dos Goytacazes, considered as

the "capital" of the northern region due to the representative commercial and financial pole.

The Fluminense stretch of the BR-356 passes through the city of Itaperuna, and connects to the RJ-186 and continues with this highway for about 50 km, where it returns to again to the city of Italva. From there it goes to the city of Cardoso Moreira until it meets the state highway RJ-204, where they continue together for approximately 40,000 in the direction of Paraíba do Sul, where it receives the name of the Campos-Itaperuna Highway, until it reaches the city of Campos dos Goytacazes, in which it connects to three different highways until it returns to be BR-356. When leaving Campos dos Goytacazes the highway follows the railroad with the name of Highway São João da Barra where it finally comes to an end.

The state government is analyzing the possibility of building a 45 km stretch, via PPI (Public Private Investment) which will unite Açu Port to BR-101, which connects the north and south of Brazil.

In relation to transport of the DISJB for the neighboring municipalities such as Campos, Macaé and São Francisco de Itabapoana, there is a bus hired by the companies of DISJB in a pool system. Should you not want to count on the dedicated transport system, future EPZ companies can participate in the existing collective transport scheme.

It is most probable that the increase in demand by people working in the industrial district there will be passenger bus lines connecting the Açu to São João da Barra and Campos.

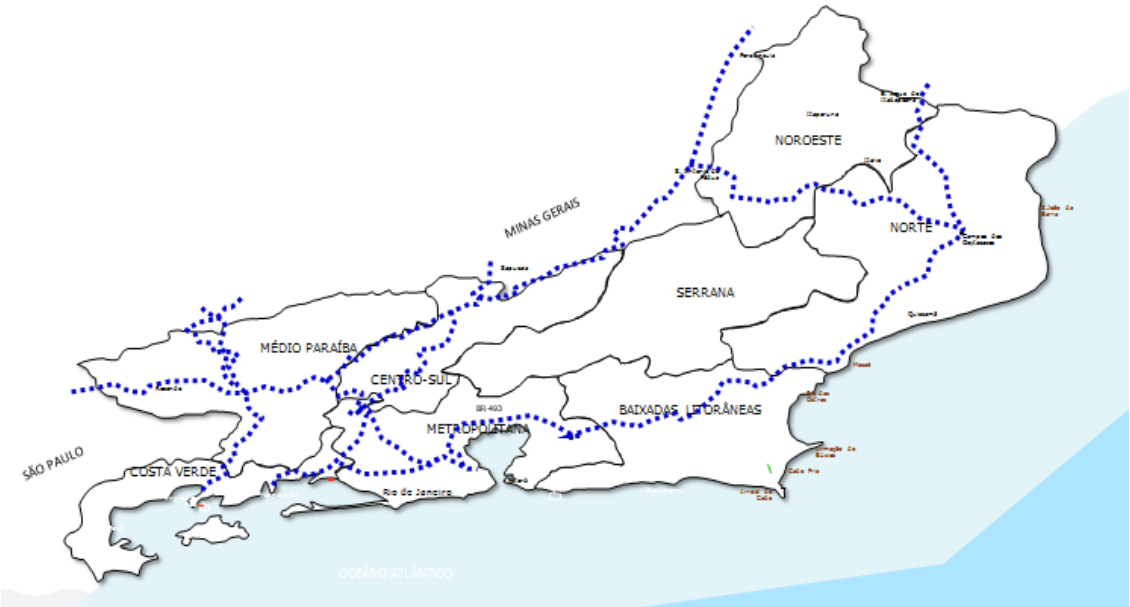
- Cost of truck transportation

Below are the costs for hiring trucks at the DISJB to the following locations:

Origin	Destination	Distance – KM	ICMS	Gross freight R$/t
Rio de Janeiro:	Industrial district São João da Barra	323	20%	R$121.13
Campos dos Goytacazes	Industrial district São João da Barra	44,5	20%	R$ 27.8
Macaé	Industrial district São João da Barra	158	20%	R$ 79.00
São Paulo	Industrial district São João da Barra	745	12%	R$ 211.65
Vitória	Industrial district São João da Barra	289	12%	R$ 98.52
Cabo Frio	Industrial district São João da Barra	240	20%	R$ 90.00

Railroad network

The railroad network in the state of Rio de Janeiro has 1200 km of track within its territory, including passenger transport, being operated by the private concessionaires, MRS Logística and the Ferrovia Centro Atlântica (FCA). The MRS, through its network as 1670 km interconnecting the state of Rio de Janeiro with Minas Gerais and São Paulo. Centro Atlântica, on the other hand, has 7800 km network.



The Açu Port receives two stretches of railway forecast in the logistics investment program (LIP) from the federal government. As indicated in the new version of the program, the infrastructure for access to the Açu Port will be composed of one system of high-capacity highways and railways. The railway EF-118, when concluded will connect Açu Port to Vitória and Rio de Janeiro passing through COMPERJ, and from there through the MRS to São Paulo and Minas Gerais.

To the north, the EF-118 will connect Açu Port to Vitória and through the EFVM to the regions of Minas Gerais. Part of this really already exists, the EF-103, and will have its course reused, reducing implementation investment.

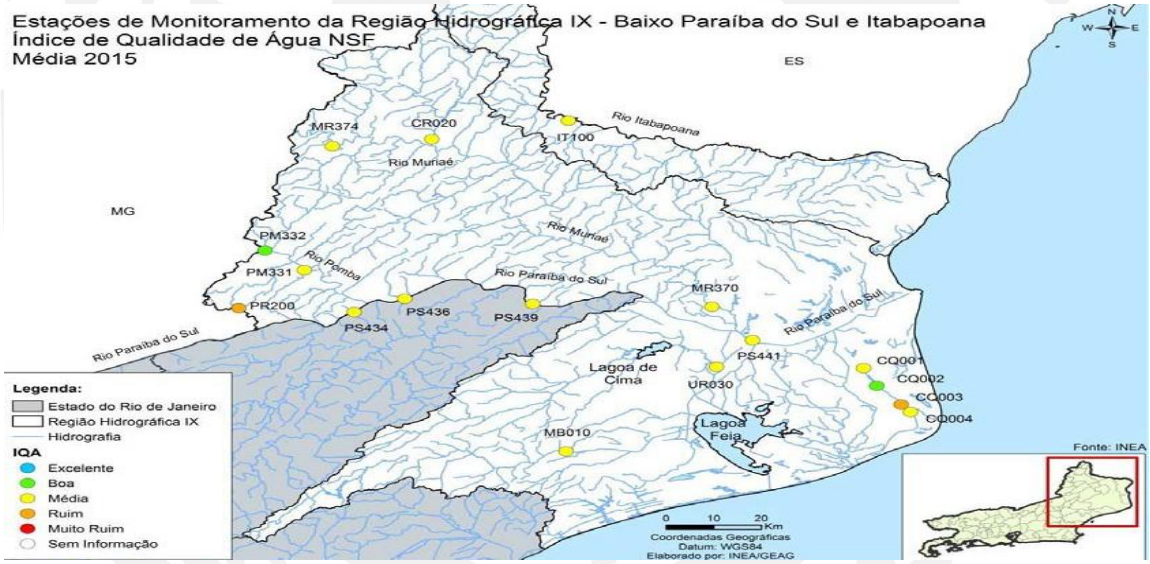
There is, equally understudied as indicated in the LIP, the railroad EF-354 that will enable the interconnection between Açu and the states of Minas Gerais, Goiás and Mato Grosso, providing greater dynamics and attracting more cargo for the EF-118.

The EF-354 will connect Anápolis (GO) to the Açu Port, passing through Brasília (DF), Corinto, Conceição do Mato Dentro and Ipatinga (all in MG) and Campos dos Goytacazes (RJ). This stretch will enable connecting Açu Port to

the Midwest and Southeast of Brazil, creating a new alternative for exportation of various products, especially grain, iron ore and steel products.

- **Basic sanitation**

The following map presents the annual average, in 2015, resulting from monitoring fresh watercourses of the Baixo Paraíba do Sul and Itabapoana, where it is situated in São João da Barra, from the application of the water quality index – Iqansf, calculated by the state environmental Institute. The water capitation points in the municipality were appropriate for conventional treatment in accordance with public supply. In the following map the colors green and yellow expressed its condition, while the points marked in orange, situated in neighboring municipalities referred to inappropriate water for conventional treatment, thus leading advanced treatment.



Source: The consolidated bulletin for quality of water from the RH IX Inea 2015.

In 2009 a new system for treating portable water was built in Barra do Açu, with an artesian well and distribution network. Three new systems of water supply were implanted in Mato Escuro, Sabonete and Palacete, all in the 5th District, which are presently responsible for the supply to a number of locations.

The company Águas do Açu created for caption, treatment and supply of water to companies in the São João da Barra industrial district obtained in the present year approval from the guarantor right to hydric resources together with INEA-state environmental Institute, whereby it is authorized caption of water from three artesian wells up to a volume of 420 m^3/hr, a volume sufficient to meet all the companies that will be installed in the DISJB needs.

In relation to the tariffs, one can use as a base those implemented by CEDAE, below, the mixed capital company of the state responsible for supplying water and treating sewage.

abaixo:

ESTRUTURA TARIFÁRIA A VIGENTE (data base agosto/2016)

ESTRUTURA TARIFÁRIA					
CATEGORIA DE USUÁRIOS	CONSUMO (m³ / MÊS)	MULTIPLI-CADOR	TARIFA 1 (A)	TARIFA 2 (A)	TARIFA 3 (A)
DOMICILIAR CONTA MÍNIMA		1,00	3,095164		
DOMICILIAR	0 - 15	1,00		3,545819	3,545819
	16 - 30	2,20		7,800801	7,800801
	31 - 45	3,00		10,637457	10,637457
	46 - 60	6,00		21,274914	21,274914
	> 60	8,00		28,366552	28,366552
COMERCIAL	0 - 20	3,40		12,055784	12,055784
	21 - 30	5,99		21,239455	21,239455
	> 30	6,40		22,693241	22,693241
INDUSTRIAL	0 - 20	5,20		18,438258	18,438258
	21 - 30	5,46		19,360171	19,360171
	> 30	6,39		22,657783	22,657783
PÚBLICA	0 - 15	1,32		4,680481	4,680481
	> 15	2,92		10,353791	10,353791
PÚBLICA	0 - 15	1,32	4,085616		
(*) ESTADUAL	> 15	2,92	9,037878		

ESTRUTURA TARIFÁRIA B VIGENTE (data base agosto/2016)

ESTRUTURA TARIFÁRIA VIGENTE					
CATEGORIA DE USUÁRIOS	CONSUMO (m³ / MÊS)	MULTIPLI-CADOR	TARIFA 1 (B)	TARIFA 2 (B)	TARIFA 3 (B)
DOMICILIAR CONTA MÍNIMA		1,00	2,715051		
DOMICILIAR	0 - 15	1,00		3,110362	3,110362
	16 - 30	2,20		6,842796	6,842796
	31 - 45	3,00		9,331086	9,331086
	46 - 60	6,00		18,662172	18,662172
	> 60	8,00		24,882896	24,882896
COMERCIAL	0 - 20	3,40		10,575230	10,575230
	21 - 30	5,99		18,631068	18,631068
	> 30	6,40		19,906316	19,906316
INDUSTRIAL	0 - 20	4,70		14,618701	14,618701
	21 - 30	4,70		14,618701	14,618701
	31 - 130	5,40		16,795954	16,795954
	> 130	5,70		17,729063	17,729063
PÚBLICA	0 - 15	1,32		4,105677	4,105677
	> 15	2,92		9,082257	9,082257
PÚBLICA	0 - 15	1,32	3,583867		
(*) ESTADUAL	> 15	2,92	7,927948		

TARIFA 1: Unidade predial com volume apurado até 0,5m³/dia/economia.
TARIFA 2 e 3: Demais unidades.

Tarifa Social:
Considera 1 economia e cobrança de 30 dias;
valor de conta para **Unidade Predial** (atendida com cobr./água e sem esgoto): R$ 14,36;
A cobrança de esgoto é igual à cobrança de água;

Id: 2000243

Source: AGENERSA

Fluvial water drainage

The capitation and treatment of fluvial waters in the industrial district will be executed by one of the EPZ integrant enterprises, who will assume obligation for such together with the EPZ Administrator, taking as a base the directives to be determined by the environmental regulatory mark – DISJB/EPZ MRA.

The industries must design their own internal fluvial drainage systems, in a way that separates contaminated non-contaminated waters. They should adopt systems for water subject to contamination that temporally retain the drainage, as a way to control and monitor the flow in terms of level of eventual contamination.

The fluvial waters in areas subject to contamination by oil must be direct to tanks for separation of water from oil (SWO), with duly removed fraction of oil separated and transferred to a treatment station for treating it's own industrial waste.

Fluvial water collected in other areas not subject to contamination may be contained as a way to be used in processes, contributing as such to reduction of consumption of industrial water.

To prevent discharge of alluvial waters contaminated by industry in the macro drainage system of the district, the drainage systems must be inspected by the administrator and CODIN during the installation phase and may sporadically be audited in the operational phase

Solid waste

In relation to solid waste the Fluminense municipalities, in the greater part, are part of regional arrangements or public consortiums, consequent to the basic national sanitation policy - PNSB (federal law nº 11.445/2007) and national policy for solid waste - PNRS (federal law nº 12.305/2010). These models allow for sharing of services or activities of common interest, permitting maximization of human resources, infrastructure and existing financial resources in each one of them, in order to generate an economic scale.

To state plans for solid waste – PERS, São João da Barra is that all the North Fluminense regional agreement that includes 69 municipalities to dispose of their urban solid waste (USW) in a landfill situated in the municipality of Campos dos Goytacazes.

Management of the solid waste is performed by the companies from DISJB and EPZ and will be carried out by the administrator of the EPZ, being forecasted the adoption of policies for reduction, recycling and reuse, as well as all mandatory procedures for waste management provided in the legislation.

The treatment or final destination of the waste will be formed by third-party versus specialized in selective collective transport and destination of waste from the DISJB companies including those of EPZ. This process of managing waste will prefer companies that recycle and reuse it, implementing as such its lines of environmental policy.

The companies will manage their own respective ways within their own environmental management systems, observing protocols to be established by Environmental Regulatory Mark – MRA. It is the administrator of the EPZResponsibility to supervise the industrial waste systems.

▪ Power supply

The industrial district of São João da Barra Is supplied through a substation at Açu Port with the capacity of 160 MVA. It will supply the clients installed at the port, the largest in Latin America and equally the EPZ Companies as well.

The enterprise is composed of a substation of 160 MVA (138/34.5KV), 54 km transmission line of 138KV and 5 km of transmission line of 34.5KV. The new substation will occupy sixth place in terms of total installed power in the ENEL-Brazilian national power supply company that distributes to the region, and a 30.5 kVA line will be the first to distribute at this voltage.

Specifically, in the area where the EPZ will be installed there will be a 30.5 KV transmission line of 24 km that will pass along the Cajueiro Highway, situated along one of the sides of the EPZ.

Another person applied for the EPZ, will be Natural Gas from Açu come it will install a reclassification plant, together with Siemens, which will provide GNL, natural gas and electricity to the region's DISJB Companies, forecast for 2020 the only one in operation.

Located in the DISJB, The Açu gas will be composed of 6,000, already licensed to generate thermal electric natural gas; and importation and storage terminal for LNG; a processing unit for natural gas; and gas ducts that will connect the enterprise to the transport network and field producers.

Phase 1 of the gas hub will count on the UTE GNA I, a thermal electric in combined cycle with natural gas of about 1300 MW, and a regasification terminal in Açu, with capacity to import liquid natural gas to the UTE GNA I and future thermoelectrics for other potential projects in the industrial area of the Açu Port.

- **Telecommunications**

The company Acessototal, present supplier of the Internet link to Açu Port, stated that the existing conditions to meet through fiber optics communications service for the EPZ companies up to 1Gb (attached).

São João da Barra has open and closed television receiver stations. It's a landline system contains 4317 installed terminals since 2010, as well as the main mobile Brazilian companies such as: Claro, Vivo, Tim and Oi.

XI – PROFILE OF THE EPZ INDUSTRIES

An analysis of the passive activities of the EPZ contemplates the profile of the Fluminense exportation, as well as the economic locations for the region situated under direct influence of São João da Barra, where it is intended to install the project.

According to a study elaborated by FIRJAN-industrial Federation for the state of Rio de Janeiro, 2016 exports for the state of Rio had a superavit of US$17.2 billion In exports and US$12.6 billion in imports. The exports advanced 1% in relation to 2015, while the imports dropped 27%.

The performance of the exportation from Rio was impacted by an advance of 27% in the export of manufactured goods ($17.6 billion, above all industrial products and others of transport equipment. Notably the sales of motorized vehicles (increase of 49%) and machinery and equipment (increase of 46%).

On the other hand the petroleum industry shrank in terms of income, which made the exportation of basic products ($8 billion) drop by 11%, even though this industry had broken the record for oil loads (231 million barrels) since 1996.

As such for the first time since 2006 the exportation of industrialized products from Rio ($18.7 billion) overtook the sales of basics products ($8 billion) and the greater part of exportation from the state.

Whereas, importation fell 27% in relation to 2015, in opposition to the national tendency. On economic categories in luminance importation shrank, especially capital goods (41%), as the purchase of other transportation equipment fell (23%). Expenditure on imported fuel fell by 50%. Whereas, importation of consumer goods fell 19%notably those for automobiles and medicines.

In terms of partnerships, Rio de Janeiro increased exportation of products, except oil, to the Netherlands (48%) and Singapore (63%), and became one of the main is of the state due to platform sales. Notably also other sales of the automobile chain to the Latin American market, with an advance in the sales to countries such as Argentina, Mexico, Paraguay, Ecuador and Colombia. Exportation to Aladi Totaled $1.7 billion (an increase of 13%), whereas, exportation to the USA, which had been the main partner of Rio in 2015, dropped 26% due to fewer steel embarkations.

In importation of exclusive oil products, the USA was the greatest source of importation (32%), followed by China (9%).

The advance in exportation was impacted by increment of 19% in external sales of industrialized products, mainly machinery and equipment, automotive vehicles and other transportation equipment, while exportation of raw materials fell 11%, impacted by the oil and gas industry.

With this result the Fluminense participation in terms of Brazilian exportation rose from 8.9% in 2015 to 9.3% in 2016, and Rio de Janeiro returned to being the third largest Brazilian exporter, overtaking Rio Grande do Sul, whose exports fell 5.4% in 2016, and was only behind São Paulo and Minas Gerais.

In industrialized exportation, manufactured products ($7.6 billion) were most notable, as the sales abroad increased by 27% in relation to 2015. Importantly for exportation of other transport equipment ($3.3 million), that increased 106% above all the sale of four oil-producing platforms, which boosted the chain of suppliers to the oil, gas and marine market.

The automotive vehicle industry ($843 milli) also was highlighted in 2016, with an increase of 49% in exportation. The increase in sales of passenger vehicles ($552 million), engines ($56 million), chassis ($49 million) and tractors ($36 million). There was also an increase in external sales for Pneumatics ($306 million) in the rubber and plastics industry, leading to a growth of 5% in exports for this industry. It is important to mention also with this Rio had its greatest percentage participation in Brazilian exports for rubber and plastic products (15.2%).

Another industry of import in exportation were machines and equipment ($744 million), which advanced 46% in 2016 because of centrifuge exportation ($163 million) and heater parts ($92 million) to China. There was also an increase in sales of compressor pumps ($87 million) and earth moving equipment ($9 million).

Notwithstanding, this still industry ($2.2 billion) faced a reduction of 21% in its exports in 2016, above all a drop in sales to the United States. Exports in laminated steel or iron ($408 million) dropped by 27% in relation to 2015, as in sales of flexible tubes ($507 million) and cast-iron pipes ($24 million). There was also a drop in income from exports of semimanufactured goods of iron ore steel ($1.1 billion), which led to a drop of 70% in exports of semimanufactured Fluminense goods.

According to APEX, manufactured products in Rio de Janeiro that represent the greatest participation in the export sector are as follows:

Grupo de Produtos	Intensidade Tecnológica	Exportações do Subgrupo em 2011 (US$ mil)	Participação do Subgrupo na Pauta do RJ	Participação do Subgrupo do RJ no Subgrupo do Brasil
Petróleo e derivados	PP	21.226.450	72,1%	79,2%
Carne de boi industrializada	PIRN	90.880	0,3%	11,3%
Bebidas destiladas	PIRN	7.963	0,0%	19,4%
Artigos de joalheria de metais preciosos	MIT	88.658	0,3%	57,5%
Confecções	MIT	39.731	0,1%	8,1%
Vidro e suas obras	MIT	39.012	0,1%	15,9%
Materiais elétricos e eletrônicos	MIT/MPFE	36.460	0,1%	10,0%
Impressos	MIT	19.303	0,1%	32,6%
Produtos cerâmicos	MIT	10.812	0,0%	2,7%
Produtos semimanufaturados de ferro ou aço	MIEE	2.140.317	7,3%	46,2%
Embarcações	MIEE	1.121.960	3,8%	97,3%
Automóveis	MIEE	360.925	1,2%	8,3%
Pneumáticos e câmaras de ar	MIEE	282.831	1,0%	18,3%
Veículos de carga	MIEE	252.412	0,9%	11,5%
Autopeças	MIEE/MPFE	87.194	0,3%	1,2%
Tratores	MIEE	64.528	0,2%	4,5%
Móveis	MIEE/MIT	22.265	0,1%	2,7%
Torneiras e válvulas	MPFE	196.562	0,7%	32,9%
Motores para veículos automóveis	MPFE	110.887	0,4%	9,0%
Produtos farmacêuticos	MIP&D	142.893	0,5%	9,8%
Higiene pessoal e cosméticos	MIP&D	91.903	0,3%	8,3%
Produtos químicos	MIP&D	71.216	0,2%	10,9%
Total grupos selecionados		**26.505.162**	**90,0%**	**46,0%**

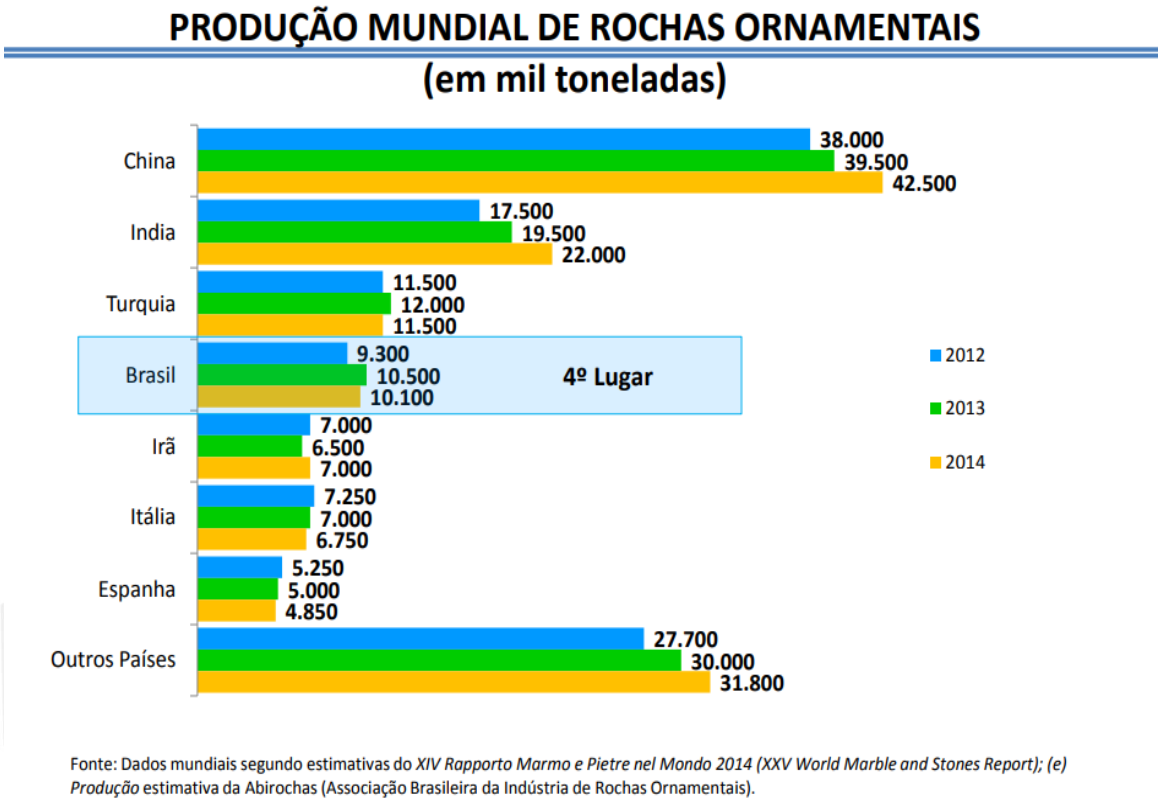
Legenda Intensidade Tecnológica: PP – Produtos Primários; PIRN – Produtos Intensivos em Recursos Naturais; MIT – Manufaturados Intensivos em Trabalho; MIEE – Manufaturados Intensivos em Economias de Escala; MPFE – Manufaturados Produzidos por Fornecedores Especializados; MIP&D – Manufaturados Intensivos em P&D.

Source: PNCE

In relation to regional economics it can be seen that Açu Port Is located at 164km from Santo Antônio de Pádua, where the main deposits of ornamental rock in the state of Rio de Janeiro is located, and 180km from Cachoeiras do Itapemirim One of the main audits in Espirito Santo, which is the largest center for ornamental stone in the country.

Analyzing the data for export and production of ornamental stone in the world, one can see that Brazil's participation is very timid on trade internationally.

In 2014, world trade was $22.9 billion of which Brazil participated with only 5.4%, whereas it is the fourth major producer of ornamental stone in the world after China, India and Turkey.

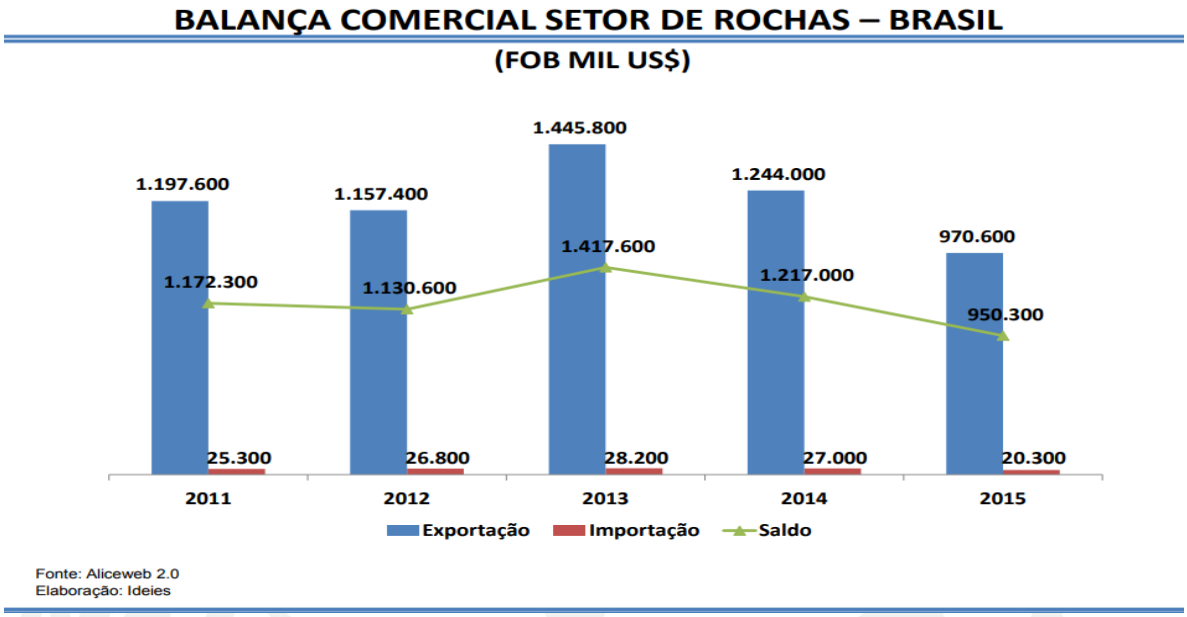


Source: Investment in Espirito Santo

In parallel, considering the potential of this sector in the country the volume of polished marble and granite exported to the Chinese, European and American markets is very small.

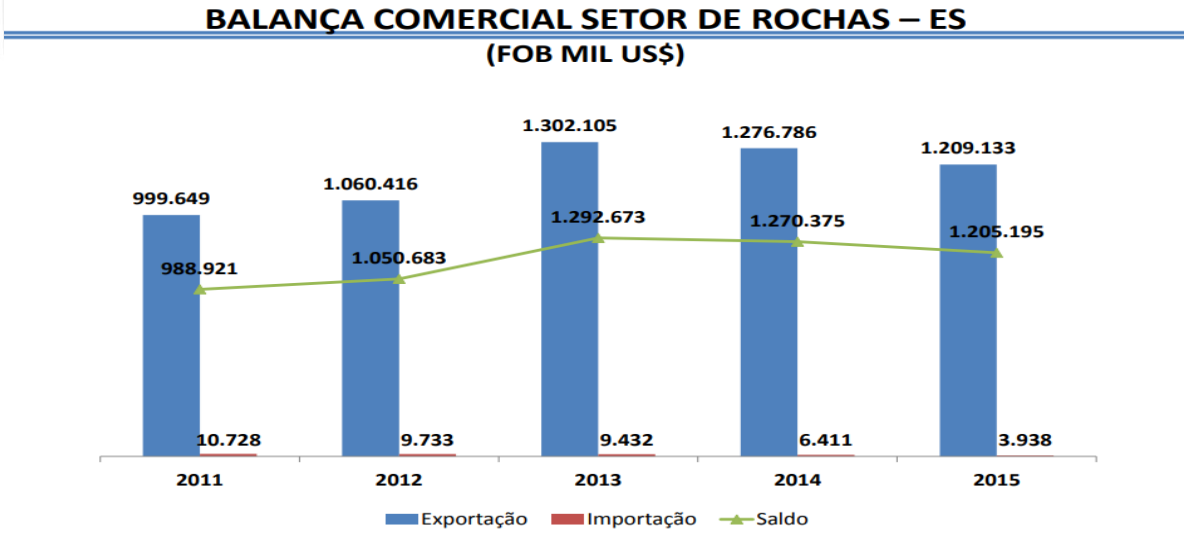
As such, one of the economic vocations of the EPZ Is focused on processing and laminating ornamental stone to meet the international market, which is rectified through the anchor industry project, forwarded for consideration to the CZPE.

The project constitutes the first stage in a greater proposal which is to create a cluster of ornamental stone in São João da Barra for exportation.



Source: Investment in Espirito Santo

The evolution of the balance of trade for the stone sector behavior 2011/2015:



Source: Investment in Espirito Santo

Of the 30 largest Brazilian exporting companies of Ornamental stone (individual exports above $10 million in 2015), all of them are located close to the Açu EPZ, in Espírito Santo.

Of the 25 greatest Brazilian exporting municipalities of stone (individual explore above $5 million in 2015), 22 are in ES, 2 are in MG and one in CE.

The three main Brazilian exporting municipalities were from the mountains ($329.6 million), Cachoeiro de Itapemirim ($257.3 million) and Barra de São Francisco ($180.3 million), together they respond to 58.3% ($705.2 million) of the total of Brazilian stone exports in 2015.

As such, the total port structure, tax incentives and proximity to the ornamental pole of the country and deposits in Santo Antônio de Pádua, Show the great possibilities of creating a cluster of ornamental stone for export, similar to the one in Santo Antônio de Pádua, where by this is destined for the domestic market.

This was the main reason that the majority of the lots in the first stage were of 40,000 m² considered adequate for companies of this segment.

Another activity previewed for the EPZ is the preparation of high quality coffee, cereal deriving from Espirito Santo, The second largest coffee producer in the country responsible for 25% of the nation's production, standing out are the conilon and arabic types.

One segment likely to install itself in the EPZ is the company's that venture relates of 100 m in length for wind turbines. The blades presently produced in the country are 60 m in length and the factories are away from the coastal area.

One of the motives of not manufacturing wind turbine blades of 100 m for the international market is because of the inexistent of industrial areas situated with in or close to port facilities, a determining factor for the trade of blades abroad, given the viability of transportation along the highways to the ports, blades 100 m where the production units are far from the ports.

Another sector with potential installation in the EPZIs the companies that manufacture parts and components for offshore oil activities. This second has a good commercial potential in the EPZ, given its industrial representative industrial and technology in the Rio/São Paulo axis.

Lastly, yet more amply, it is forecast that these activities need available energy supply, port efficiency, transportation, skilled labor and if the case may be deep water ports, and are candidates for installation in the Açu EPZ.

Additionally, should the PL 5957/2013 be approved as it passes through the national congress proposing an increase in the conceded benefits for the companies installed the EPZ, such as increase to 40% sale of production on the domestic market and extension of tax benefits to companies service providers and software producers, shall have open window of opportunities for investments in the Açu EPZ, and should attract the interest of foreign companies, not only because it unites greatest factor of production but also for being the only one that operates in the southeastern region in 2020 with a port within 5 km.

XII - ENVIRONMENTAL EXPECTS AROUND THE EPZ

- **Açu State Lake Park**

The Açu state Lake Park - Pelag is an integral conservation and protection unit. It guarantees the preservation of remaining native vegetation from the Atlantic rainforest such as sandbars, mangrove swamps, wetlands (the Boa Vista marshland, and the Açu lagoon, with its 13 km along the coast); the integration of its echo systems with the social cultural diversity of the region; the rare, endemic and species of Flora and fauna.

Created by decree nº 43.522 on 20 March 2012, covers an area of 8201.45 ha, reaching part of the municipalities of Campos dos Goytacazes and São João da Barra, on the North coast of Rio de Janeiro state.

The fauna of the PELAG Shelters migrating birds and a great variety of species under distinction. Other species of fauna also can be found in the conservation such as: hedgehog, Southern anteater, crab-eating fox, and other mammals, as well as 1.50 different species of bird. Some species of fauna sheltered by the PELAG are threatened by extinction.

- **Private reservation of the Caruara natural farm property – RPPN**

The RPPN Caruara farm, kept by the company that administers the Açu Port, extends or 4000 ha, it's the largest private wetlands conservation unit in the country, and the only one in the state of Rio de Janeiro, that protects this type of ecosystem, representing about 60% of all RPPNs created by the state.

The RPPNs recompose vegetation and monitor the flora and fauna with local workforce. Today, about 40 residents from the region work in the park. All plant shoots in the reservation are produced in a nursery in the port, which are peculiar species to the sandbar and it may produce up to 500,000 shoots per year.

Presently, the nursery produces and handles more than 70 species from the sandbar and up till now more than 750,000 shoots have been produced and

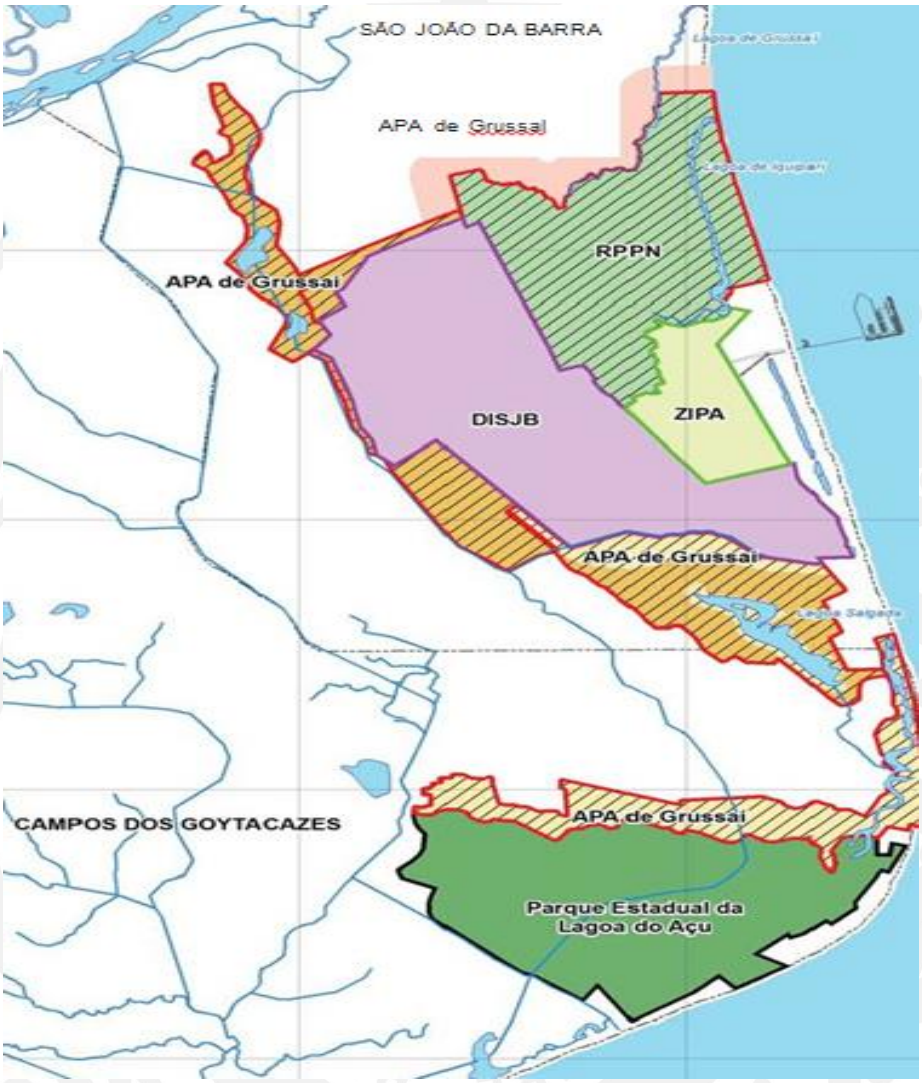
planted in the RPPN, some of the Brazilian flora on the list are threatened with extinction.

The RPPN Caruara from is a conservation unit for more than half the ICMS Verde Returns for São João da Barra, it was created as a way to encourage cities to take action that guarantees the natural reserves of the region and protect within their territory conservation units, environmental protection areas or wetlands.

- **Grussaí APA**

The environmental area of Grussaí (APA) includes within its limits the lagoons of Taí, Salgada, Grussaí and Iquipari. The protection areas around the banks (FMPs) of rivers, lakes, lagoons and water reservoirs are strips of land necessary for the protection, defense, conservation and operation of fluvial and Lakes. The lagoons of Grussaí and Iquipari were determined in 2009.

Maps of the conservation units (UCS) determined for the area under the enterprises influence.



- **Regional Geomorphological panorama**

Considering a wider area, in which the Campista lowland is inserted includes three large geomorphological provinces (which can be understood as features found on the surface of the land in a determinate area), which are: The Highland area, tertiary cliffs and quaternary low plains.

The first is a characteristic of the high background of the Campista low lands, the second are flat elevated lands between the foothills of the Highlands and the lowlands, whereas the third is presented by the coastal low plains.

The area of the DISJB is located in the Quaternary province. There are two juvenile for logical occurrences in this province, which are:

- **Sandy stretches along the river Paraíba do Sul.**

Occupying a portion of the land includes a succession of stretches of high sandy buttresses along the coast from marine and fluvial action. These features are located both north and south of the Rio Paraíba do Sul River.

- **Campista lowlands**

Is represented by a system of colluvial - alluvial - marine low planes and low plain fluvial- lagoons. It is characterized by sedimentation and interface between continental and Marine and/or transitional environments. The Campista lowlands are a fluvial – lagoon areas isolated from the oceans by coastal plains that together compose the delta plain of the Paraíba do Sul River.

- **Soils**

The soils found in the AID of the industrial district are formed of sandy strips, whereby the surface water (called 'free') is very shallow – between 1.5 and 2.5 m.

Results from the soil samples collected in the area of the DISJB Show that are composed predominantly by medium and fine sand, with low concentrations of organic material. The results that were assessed through the light of CONAMA 420/2009, also showed that the soil was free from contamination.

The parameters that were found in highest concentration (and million, iron, manganese and magnesium) are regularly found in similar soils. This is related to the fact that there area has been used for livestock activities on a small scale, without industrial waste.

As one moves away from the coast there is a reduction in the amount of sand found in the surface layers of the soils. On the banks of the rivers where there is a concentration of gleysols, where it is recommended that urbanization, highway construction more solid waste deposits are avoided.