USDA United States Department of Agriculture

Agricultural Marketing Service

Revised June 2014

Soybean Transportation Guide:

Brazil 2013

United States Department of Agriculture
Marketing and Regulatory Programs
Agricultural Marketing Service
Transportation and Marketing Programs

June 2014

Author:
Delmy L. Salin, USDA, Agricultural Marketing Service

Graphic Designer:
Jessica E. Ladd, USDA, Agricultural Marketing Service

Preferred Citation
Salin, Delmy. Soybean Transportation Guide: Brazil. June 2014. U.S. Dept. of Agriculture, Agricultural Marketing Service. Web. <http://dx.doi.org/10.9752/TS048.06-2014>

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Soybean Transportation Guide: Brazil

Summary

The Soybean Transportation Guide is a visual snapshot of Brazilian soybean transportation in 2013. It provides data on the cost of shipping soybeans via highways and ships to Shanghai, China, and Hamburg, Germany, and gives information about soybean production, exports, railways, ports, and infrastructural developments.

Brazil is one of the most important U.S. competitors in the world oilseeds market. In 2013, Brazil for the first time surpassed U.S. soybean exports, becoming the top world soybean exporter. U.S. producers decreased planted area in 2013, and a summer drought lowered yields resulting in lower production levels than expected. The 2013 Brazil record soybean exports were supported by favorable weather conditions and increased efficiency in the agricultural sector. The exports were also driven by Brazil's ability to expand soybean production area and yields, as well as the Brazilian government strategic infrastructural logistic improvements.

Transportation Infrastructure Improvement Highlights

Brazil's competitiveness in the world market depends largely on its transportation infrastructure and cost. Brazil's general cargo modal share is proportionally similar to the United States. Cargo is predominantly shipped by truck, followed by rail and barge. Since 2007, the Brazilian government began a comprehensive infrastructural improvement strategy to increase Brazil agricultural competiveness by creating the Growth Acceleration Program (PAC 1) 2007–2010. PAC 1 was integrated into the multi-year National Plan of Logistics and Transportation (PNLT) 2008-2023. By March 2010, with less than half of the first logistic package (PAC 1) projects completed, the Government announced the second Growth Acceleration Plan (PAC 2), 2011-2014. It was expected that the Brazilian infrastructure would be suitable by 2014 for the country's hosting the 2014 World Cup.

At the end of 2013, the ninth evaluation results of Growth Acceleration Program 2 (PAC 2), 2011-2013, showed that Brazil did not finish the projects as planned. However, the Midwest agricultural exporters gained from selected strategic port improvements and extended railways miles with a new intermodal grain terminal. Some of the port improvements include: 1) dredging in the ports of Santos (SP), Sáo Francisco do Sul (SC), and Rio Grande (RG); 2) Port of Itaquí (MA) expansion and the building of pier 100; and 3) Sáo Francisco do Sul (SC) Pier 102 restoration.

Two railroad infrastructural improvements are underscored because they facilitated exports from the Midwest through Santos, Paranaguá, and Rio Grande to China. The first was completed by Ferronorte railroad (Rondonópolis-Alto Araguaia), which finished 153 railway miles, including an intermodal rail yard in Rondonópolis facilitating the flow of grains from Mato Grosso (MT) to the southern port of Santos. The Rondonópolis grain terminal is operated by América Latina Logística S.A. (ALL). ALL networks consist of nearly 8,000 railway miles connecting the Brazilian states of Mato Grosso (MT), Mato Grosso do Sul (MS), Santa Catarina (SC), Paraná (PR), and Rio Grande do Sul (RG) to the ports of Santos, Paranaguá, São Francisco, and Rio Grande.

The second improvement was instituted on July 14, 2011, when the Brazilian government introduced new rail regulation. The new law states that the Brazilian railroads are required to sell to other railroads the rights to use idle capacity if they are not using the rail tracks at full capacity. This was a major step to increase railway use within the next 15 years. This law has a significant impact on the Brazilian grain and soybean exports route to China by facilitating access to the southern ports of Santos, Paranaguá, and Rio Grande. These three ports accounted for 67 percent of Brazil total exports and 74 percent of exports to China. In the United States, railroads have no obligation to allow other railroads to use their rails. Instead, access is negotiated with competing railroads at a mutually agreed-upon price.

Two highway improvements are highlighted even though the full impact is not yet realized:

(1) BR-163, connecting North MT to the Amazon port of Santarém (PA) has been delayed with 28 percent finished. The road is expected to be completed by December 30, 2015. BR-163 will significantly reduce transportation costs to the Amazon River ports on the Brazil–Europe route. It will shift soybean exports to Europe from the southern ports to the north. However, it is less likely that the Brazil–China route would be significantly affected because it requires a major cost reduction of inland transportation to offset the increase in ocean rates—due to 7 or 8 additional days at sea—around South Africa's Cape of Good Hope to China.

(2) On July 17, 2012, the Brazilian government implemented the first hours-of-service rules, called the "Driver's Law," to address safety issues. The new law reduced the number of hours a truck driver can work in a 24-hour period, which many believe would raise transportation costs. Since its implementation, however, the "Driver's Law" has not yet significantly impacted transportation cost due to increase use of rail transportation and shifts to alternative ports.

In 2013, Santos was the largest Brazilian soybean export port, followed by Rio Grande and Paranaguá. The port of Rio Grande competitiveness relies on its improved export terminal facilities, channel depth, and intermodal transportation system. For example, grain can be shipped from MT, MS, PR, and RS, by rail (ALL), or by truck to Canoas, close to Porto Alegre, and then carried by barge through the Duck's Lake to Rio Grande. A record crop, weaker currency against the U.S. dollar and lower ocean rates diverted exports from the congested ports of Santos and Paranaguá to the ports of Rio Grande, São Francisco, São Luiz, Satarém, and Ilhéus.

Soybean Transportation Cost and Export Demand

A weaker currency, record soybean crop, and lower farm prices and ocean rates all increased export transportation demand during 2013. However, the cost of shipping a metric ton (mt) of soybeans 100 miles by truck decreased 14 percent, from $11.71 in 2011 to $10.07 in 2012. Truck rates dropped significantly from last year's, especially in the second and third quarters, when measured in U.S. dollars. However, when measured in the local currency, selected Brazilian export truck routes saw proportionally lower transportation costs than those estimated in U.S. dollars due to the depreciation of the Brazilian real (R$) against the U.S. dollar. The new "Driver's Law" which reduced the truck supply availability at the harvest season may have been partially offset by increased rail shipments from MT to Santos, Rio Grande, and São Francisco. The peak of Brazilian soybean exports usually occurs in May; by the end of June, almost two-thirds of the year's soybeans are exported.

Brazilian soybean transportation costs to Shanghai, China, as a percentage of total landed costs from Rio Grande in Northwest Rio Grande do Sul (RS), and from Paranaguá in North Center Paraná (PR), decreased 7 to 10 percent from 2012 because of lower transportation costs and farm prices. However, the costs increased up to 4 percent from North Mato Grosso (MG) and South Goiás to Santos due to higher truck rates resulting from the nearly 11-percent increase in soybean production. In Sorriso, North MT (the largest Brazilian soybean-producing state) transportation costs represented 28 percent of the total landed costs of shipping soybeans to Shanghai through Santos compared with 45 percent in 2006.

The 2013 volume of Brazilian soybean exports increased nearly 34 percent from 2012, from 32 million to 42.9 million metric tons (mt) (Secretariat of Foreign Trade (SECEX), MDIC). The value of exports increased 33 percent to US$22.8 billion from 17.2 billion in 2012. Average soybean export prices slightly increased from 2012, to $533/mt from $530.29/mt. A 10.3 percent weakening of the Brazilian real against the U.S. dollar partially offset the 10-percent drop in soybean farm prices, which were down to $440.95/mt from a record high of $490.03/mt in 2012, because soybeans are priced in U.S. dollars but paid in reais. The 2013 average farm prices in the Brazilian real (R$) decreased on average nearly 2 percent, from R$964.53/mt to R$948.16 (CONAB).

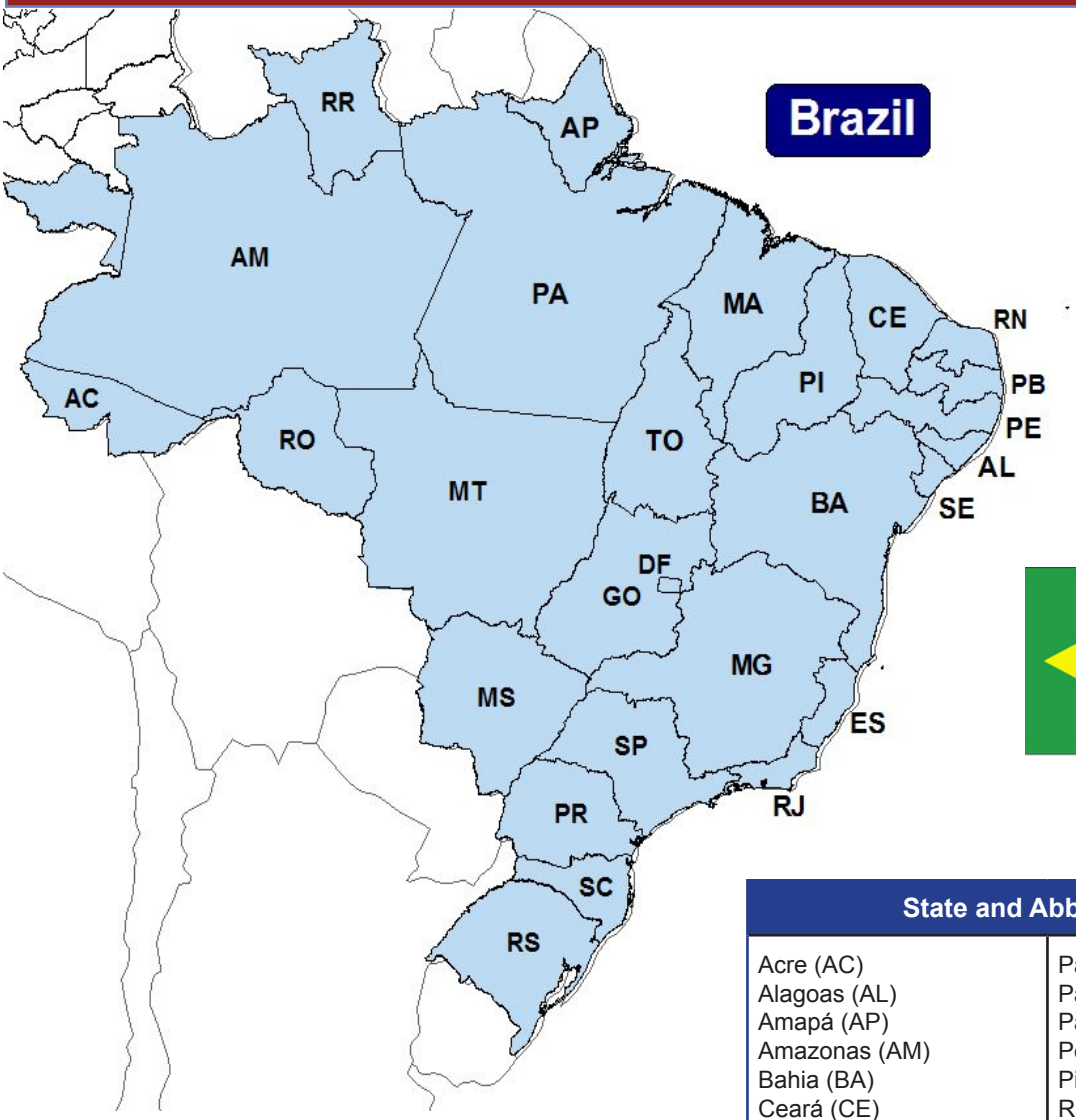
In Sorriso, North MT (the largest Brazilian soybean-producing State, in the Midwest region) transportation costs represented 28 percent of the 2013 total landed costs of shipping soybeans to Shanghai through Santos, compared with 45 percent in 2006. In 2013, ocean rates from the Port of Santos to Shanghai, China, dropped in the second quarter, then

slowly recovered in the second half of the year, but still remained nearly 18 percent below 2012 rates, averaging $40.96/mt. Ocean rates to Hamburg decreased 7 percent from 2012 rates, averaging $29.50/mt.
China is Brazil's major soybean buyer, accounting for 75 percent of total exports. China bought 32.2 million mt of Brazilian soybeans in 2013, valued at US$17.1 billion. China usually buys soybeans shipped from the southern ports of Santos, Paranaguá, and Rio Grande around the Cape of Good Hope in South Africa to Shanghai; the Port of Santos, Rio Grande, and Paranaguá accounted for 74 percent of total Brazilian soybean exports to China. Brazil soybean exports to China usually peak in May and finish by the end of September. About 76 percent of Brazil soybeans exports to China originated from Mato Grosso, Rio Grande Do Sul, Paraná, and Goiás. China accounted for nearly 73 percent of Mato Grosso soybean exports in 2013.

Overall, Brazil's transportation infrastructure is improving. However, transportation costs in the Midwest, especially in MT, are still higher than Iowa in the United States and in the southern Brazilian State of Rio Grande do Sul. Rio Grande do Sul (RS) exporters have lower transportation costs than the United States' routes to China through the Pacific Northwest (PNW) and from Iowa through the U.S. Gulf to Shanghai.

Acknowledgments

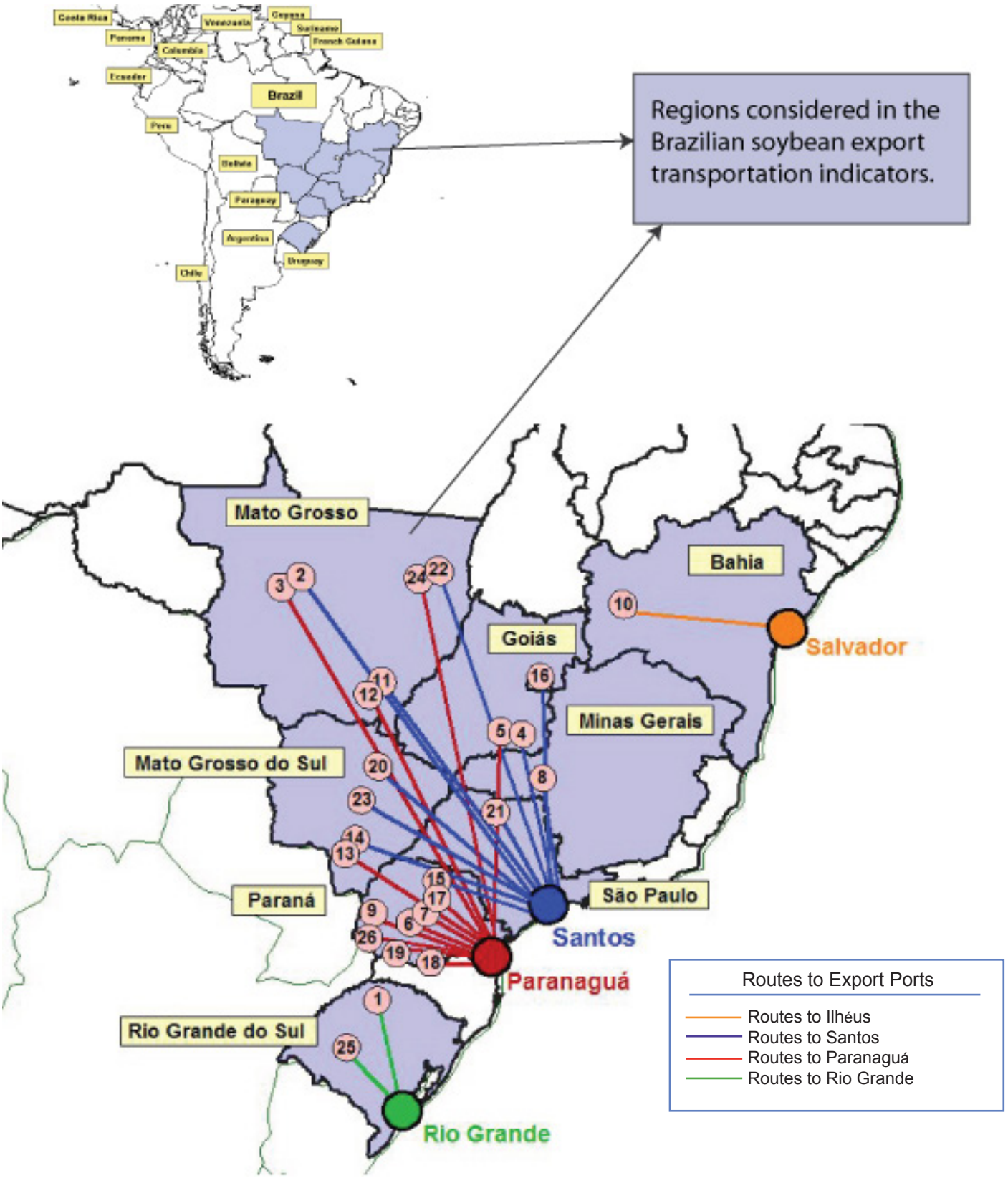
The author would like to acknowledge Francisco P. Magalhães Gomes, (National Agency of Inland Transportation, ANTT), Rodrigo Vilaça and Juliano Dian (National Association of Railroads, ANTF), Escola Superior de Agricultura “Luiz de Queiroz”/ Grupo de Pesquisa e Extensão em Logística Agroindustrial, ESALQ-LOG, the Assesoria de Comunicação dos Portos de Paranaguá e Antonina, ASSCOM-APPA, Robert Tetrault (USDA, Foreign Agricultural Service) for providing regional information, pictures and maps of Brazil. Comments and critiques by Keith Menzie and David Stallings (USDA, Office of the Chief Economist), Mark Ash (USDA, Economic Research Service), Laura J. Geller (USDA, , Foreign Agricultural Service (FAS), Agricultural Attaché, Brasilia), Pierre Bahizi (USDA, Agricultural Marketing Service), Yoonhee Macke, Rachel Trejo, and Bill George, (USDA, FAS, Office of Global Analysis), are greatly appreciated. The author would also like to thank Michael D. Smith, editor, and Jessica Ladd and Sharon C. Williams, graphic designers.



State and Abbreviation	
Acre (AC)	Pará (PA)
Alagoas (AL)	Paraíba (PB)
Amapá (AP)	Paraná (PR)
Amazonas (AM)	Pernambuco (PE)
Bahia (BA)	Piauí (PI)
Ceará (CE)	Rio de Janeiro (RJ)
Distrito Federal (DF)	Rio Grande do Sul (RS)
Espírito Santo (ES)	Rondônia (RO)
Goiás (GO)	Roraima (RR)
Maranhão (MA)	Santa Catarina (SC)
Mato Grosso (MT)	São Paulo (SP)
Mato Grosso do Sul (MS)	Sergipe (SE)
Minas Gerais (MG)	Tocantins (TO)

Population:	201,009,622 (July 2013 est.) 196 526,000 (2010 Census, Instituto Brasileiro de Geografia e Estatística (IBGE))
Gross Domestic Product per Capita, 2013:	US$11,462.22 (Banco Central do Brasil)
Inflation, 2013:	5.91 percent (Banco Central do Brasil)
Area:	8,514,877 sq km
Languages:	Portuguese (official), Spanish, English, French

Routes[1] and regions considered in the Brazilian soybean export transportation indicators[2]



[1]Table defining routes by number is shown on page 16
[2]Regions comprised about 82 percent of Brazilian soybean production, 2010
Source: USDA/AMS & ESALQ - University of São Paulo (USP), Brazil

2013 Summary

In 2013, Brazilian soybean transportation costs to Shanghai, China, as a percentage of total landed costs from the routes of Northwest Rio Grande do Sul−Rio Grande and North Center Paraná (PR)−Paranaguá decreased 7—10 percent due to lower transportation costs compared with 2012. However, it increased up to 4 percent from North Mato Grosso (MG) and South Goiás to Santos because of higher truck rates caused by the "Driver's Law" . In Sorriso, North MT (the largest Brazilian soybean-producing state) transportation costs represented 28 percent of the total landed costs of shipping soybeans to Shanghai through Santos compared with 34 percent in 2008.

Cost of transporting soybeans from Brazil to Shanghai, China

	2008	2009	2010	2011	2012	2013	Percent change 12-13	2008	2009	2010	2011	2012	2013	Percent change 12-13
	--US$/mt--							--US$/mt--						
	North MT[1] - Santos[2]							Northwest RS[1] - Rio Grande[2]						
Truck	115.74	97.00	116.78	123.31	111.78	116.40	4.1	22.29	24.50	28.18	38.94	25.83	23.26	-9.9
Ocean	70.38	58.78	55.84	50.50	49.70	40.96	-17.6	72.08	59.42	58.21	51.10	49.69	41.52	-16.4
Total transportation	186.12	155.78	172.62	173.81	161.48	157.36	-2.6	94.37	83.92	86.39	90.03	75.51	64.79	-14.2
Farm price[3]	358.99	324.34	318.15	392.10	483.31	415.28	-14.1	394.66	359.51	344.90	415.87	483.22	459.33	-4.9
Landed cost	545.11	480.12	490.77	565.91	644.80	572.64	-11.2	489.03	443.43	431.29	505.90	558.73	524.11	-6.2
Transport % of landed cost	34.1	32.6	38.6	30.6	28.4	28.4	0.2	19.4	19.0	20.1	17.8	13.7	12.3	-9.8
	North Center PR[1] - Paranaguá[2]							South GO[1] - Santos[2]						
Truck	33.60	27.37	34.51	39.54	34.76	32.26	-7.2	55.33	50.83	64.71	63.92	55.02	58.90	7.1
Ocean	71.66	59.00	58.92	57.32	55.20	43.88	-20.5	70.38	58.78	55.84	50.50	49.70	40.96	-17.6
Total transportation	105.26	86.37	93.43	96.86	89.96	76.15	-15.4	125.71	109.62	120.56	114.42	104.72	99.86	-4.6
Farm price[3]	399.31	372.46	350.44	431.66	513.81	470.66	-8.4	373.13	338.31	324.27	412.89	479.80	428.06	-10.8
Landed cost	504.56	458.83	443.87	528.52	603.76	546.80	-9.4	498.84	447.93	444.82	527.31	584.52	527.93	-9.7
Transport % of landed cost	21.0	18.9	21.2	18.4	15.1	13.9	-7.8	25.4	24.6	27.4	21.7	18.1	18.9	4.0

[1]Producing regions: RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports
[3]Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2013 Summary

In 2013, Brazilian soybean transportation costs from South Goiás (GO) and Mato Grosso (MT), as a percentage of total landed costs increased 10–12, but decreased 2-7 percent from Paraná (PR) and Rio Grande do Sul (RS) to Hamburg, Germany, percent from a year earlier.

Cost of transporting soybeans from Brazil to Hamburg, Germany														
	2008	2009	2010	2011	2012	2013	Percent change 12-13	2008	2009	2010	2011	2012	2013	Percent change 12-13
	--US$/mt--							--US$/mt--						
	North MT[1] - Santos[2]							Northwest RS[1] - Rio Grande[2]						
Truck	115.74	97.00	116.78	123.31	111.78	116.40	4.1	22.29	24.50	28.18	37.54	25.83	23.26	-9.9
Ocean	52.36	32.48	33.63	34.65	31.75	29.50	-7.1	54.30	33.79	36.03	36.12	33.15	29.50	-11.0
Total transportation	168.10	129.48	150.40	157.96	143.53	145.90	1.7	76.60	58.30	64.21	73.65	58.97	52.76	-10.5
Farm price[3]	358.99	324.34	318.15	392.10	483.31	415.28	-14.1	394.66	359.51	344.90	415.87	483.22	459.33	-4.9
Landed cost	527.09	453.82	468.55	550.06	626.84	561.18	-10.5	471.26	417.80	409.11	489.52	542.19	512.09	-5.6
Transport % of landed cost	31.6	28.7	32.6	28.7	23.3	26.0	11.8	16.1	14.0	15.8	15.0	11.0	10.3	-6.6
	North Center PR[1] - Paranaguá[2]							South GO[1] - Santos[2]						
Truck	33.60	27.37	34.51	39.54	34.76	32.26	-7.2	80.61	50.83	64.71	63.92	55.02	58.90	7.1
Ocean	53.81	33.34	35.08	34.95	33.80	29.50	-12.7	52.36	32.48	33.63	34.65	31.75	29.50	-7.1
Total transportation	87.41	60.71	69.59	74.48	68.56	61.76	-9.9	132.97	83.32	98.34	98.57	86.77	88.40	1.9
Farm price[3]	399.30	372.46	350.44	431.66	513.81	470.66	-8.4	358.99	338.31	324.27	412.89	479.80	428.06	-10.8
Landed cost	486.71	433.17	420.03	506.15	582.36	532.42	-8.6	491.97	421.63	422.61	511.46	566.57	516.47	-8.8
Transport % of landed cost	17.9	14.1	16.8	14.7	11.9	11.6	-2.5	26.9	19.8	23.6	19.3	15.6	17.1	10.0

[1]Producing regions: RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports
[3]Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2013 Summary

In 2013, U.S. soybean transportation costs from Minnesota and Iowa through the U.S. Gulf to Hamburg, Germany, as a percentage of total landed costs, increased up to 2 percent, because of higher rail and ocean rates. On the other hand, U.S. soybean transportation costs from Minnesota and Iowa through the U.S. Gulf to Shanghai, as a percentage of total landed costs, decreased 2-4 percent compared with 2012 due to lower barge and ocean rates.

Average cost of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China

	2007	2008	2009	2010	2011	2012	2013	% Change 2012-13	2007	2008	2009	2010	2011	2012	2013	% Change 2012-13
	To Hamburg, Germany															
	Minneapolis, Minnesota --US$/mt--								Davenport, Iowa --US$/mt--							
Truck	10.09	11.50	10.01	9.45	11.38	11.29	11.56	2.4	10.09	11.50	10.01	9.45	11.38	11.29	11.56	2.4
Rail**	-	26.00	-	10.86	10.86	10.86	36.48	235.9	-	-	-	10.86	23.84	23.84	27.93	17.2
Barge[1]	29.38	34.75	25.56	31.25	31.93	28.53	25.79	-9.6	23.89	30.41	19.77	25.45	25.99	22.89	21.38	-6.6
Ocean[2]	58.81	52.66	21.10	28.94	23.42	20.29	22.87	12.7	58.81	52.66	21.10	26.22	23.42	20.29	22.87	12.7
Total transportation[2]	98.28	105.41	56.67	72.36	75.39	68.02	69.34	1.9	92.79	94.57	50.88	63.83	67.40	60.52	62.79	3.8
Farm price[3]	274.79	411.71	363.76	353.90	446.13	507.43	511.04	0.7	285.77	416.89	370.01	362.78	458.68	510.13	517.78	1.5
Landed cost	373.07	517.12	420.46	426.26	521.52	575.45	580.38	0.9	378.56	511.46	420.89	426.62	526.08	570.64	580.57	1.7
Transport % of landed cost	25.7	20.1	13.5	17.0	14.5	11.9	12.0	0.8	23.9	18.3	12.1	15.0	12.8	10.7	10.9	1.8
	To Shanghai, China															
	Minneapolis, Minnesota --US$/mt--								Davenport, Iowa --US$/mt--							
Truck	10.09	11.50	10.01	9.45	11.38	11.29	11.56	2.4	10.09	11.50	10.01	9.45	11.38	11.29	11.56	2.4
Rail**	-	26.00	-	10.86	34.74	31.61	36.48	15.4	-	-	-	10.86	10.86	24.16	27.93	15.6
Barge[1]	29.38	34.75	25.56	41.41	31.93	28.53	25.79	-9.6	23.89	30.41	19.77	35.61	25.99	22.89	21.38	-6.6
Ocean[2]	81.36	91.18	51.21	54.56	53.08	46.98	46.76	-0.5	81.36	91.18	51.21	51.84	53.08	46.98	46.76	-0.5
Total transportation[2]	120.84	143.93	86.78	108.13	105.05	94.71	93.23	-1.6	115.35	133.09	80.99	99.61	97.06	87.20	86.69	-0.6
Farm price[3]	274.79	411.71	363.80	355.37	446.13	507.43	511.04	0.7	285.74	416.89	370.01	364.16	458.68	510.13	517.78	1.5
Landed cost	395.62	555.64	450.57	463.51	551.18	602.14	604.28	0.4	401.09	549.98	450.99	463.77	555.74	597.33	604.46	1.2
Transport % of landed cost	30.1	25.4	19.2	23.3	19.1	15.8	15.5	-2.2	28.3	23.7	17.9	21.5	17.5	14.7	14.4	-2.0

**Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River.
[1]The Mississippi River closes from Minneapolis to just north of St. Louis from mid-December to late March. The distance by barge between Minneapolis and Davenport to the Port of New Orleans is 1,713 and 1,343 miles, respectively.
[2]The Baltic Exchange, 2007-2008; O'Neil Commodity Consulting, 2008 to present; Excludes handling charges
[3]USDA/NASS

2013 Summary

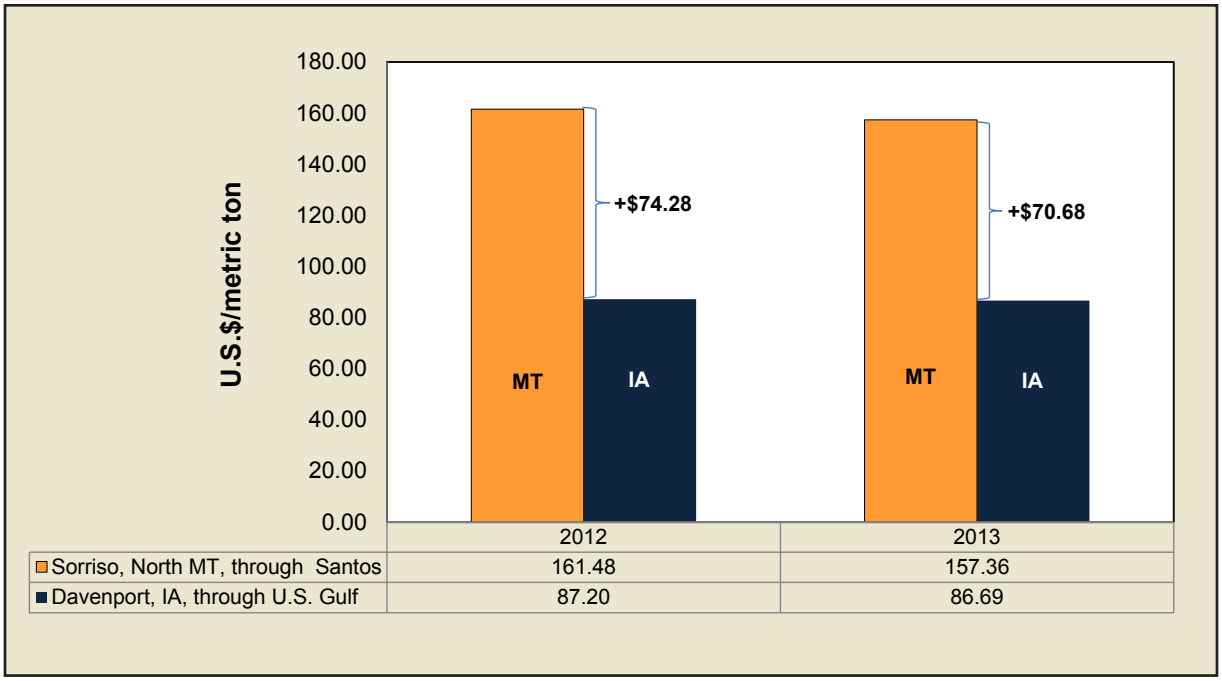
The U.S. soybean transportation costs from North and South Dakota via the Pacific Norwest to Shanghai, China, as a percentage of total landed cost, increased 2 percent from a year earlier.

Average costs of transporting U.S. soybeans to Shanghai, China								
	2011	2012	2013	% change 2012-13	2011	2012	2013	% change 2012-13
	To Shanghai, China via PNW							
	Fargo, ND --US$/mt--				Sioux Falls, SD --US$/mt--			
Truck	11.38	11.29	11.56	2.4	11.38	11.29	11.56	2.4
Rail	50.89	55.24	57.92	4.85	53.41	57.01	59.38	4.15
Ocean[1]	29.76	24.93	24.93	-	29.76	24.93	24.93	-
Total transportation	92.03	91.46	94.41	3.2	96.68	93.23	95.87	2.8
Farm price[2]	442.76	496.65	497.79	0.2	386.64	502.78	504.56	0.4
Landed cost	534.79	588.11	592.20	0.7	483.32	596.00	600.43	0.7
Transport % of landed cost	17.2	15.6	16.0	2.4	20.2	15.7	16.0	2.0

[1]Source: O'Neil Commodity Consulting; Excludes handling charges
[2]Source: USDA/NASS

In 2013, it cost $70.68 more per metric ton to ship soybeans from Sorriso, North Mato Grosso (MT) to Shanghai, China, than from Davenport, IA. Sorriso is located 1,190 miles from the port of Santos. Davenport is about 900, 908, and 1,343 miles from the Port of New Orleans by truck, rail, and barge, respectively.

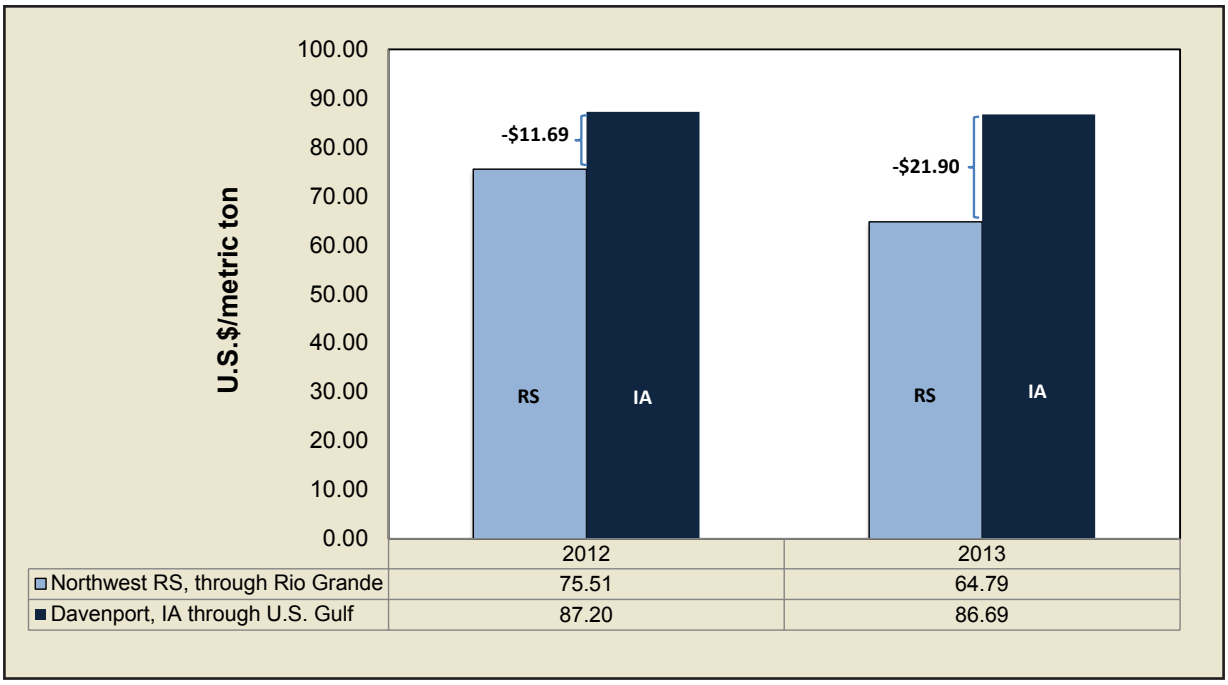
Transportation cost differences between Mato Grosso (MT) and Iowa (IA) to Shanghai, China



	2012	2013
Sorriso, North MT, through Santos	161.48	157.36
Davenport, IA, through U.S. Gulf	87.20	86.69

In 2013, the cost of shipping a metric ton of soybeans from Cruz Alta, Northwest Rio Grande do Sul (RS), to Shanghai, China, cost $21.90 less than from Davenport, IA. The distance from Cruz Alta to the port of Rio Grande is 288 miles.

Transportation cost differences between Rio Grande do Sul (RS) and Iowa (IA) to Shanghai, China

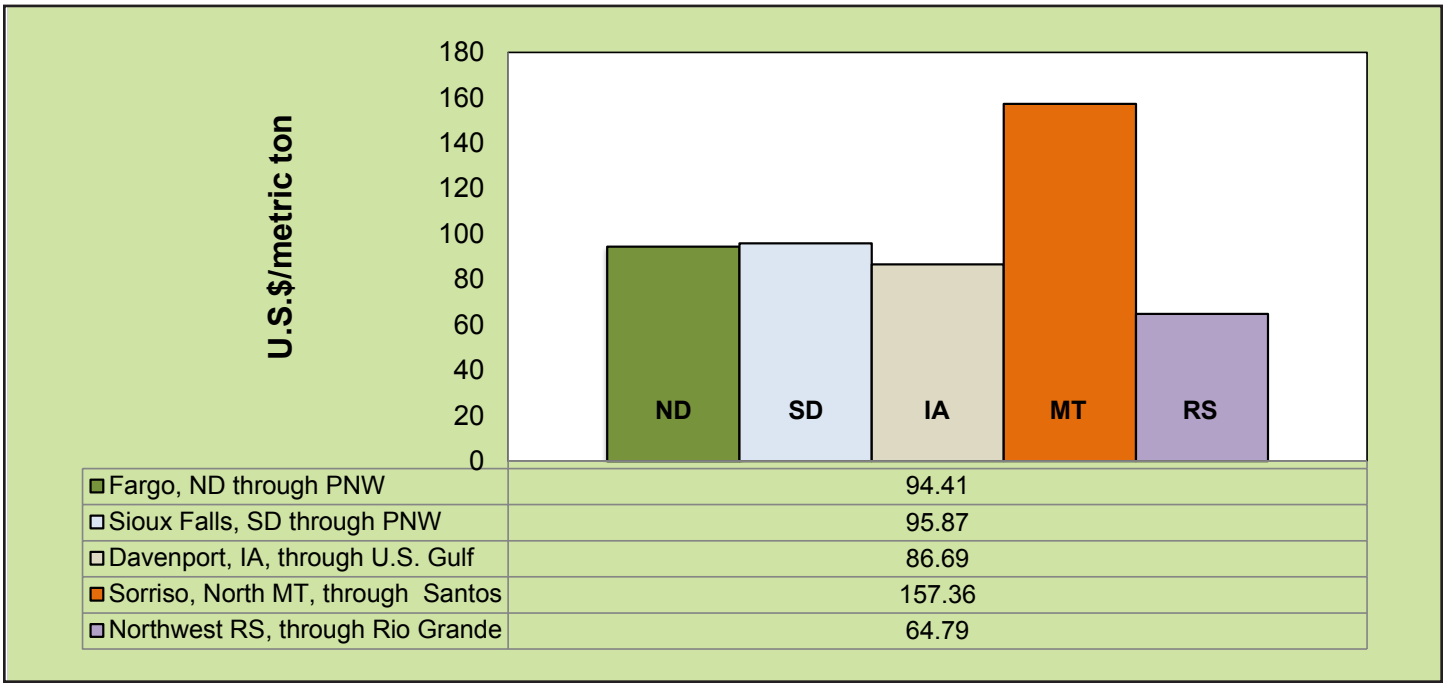


	2012	2013
Northwest RS, through Rio Grande	75.51	64.79
Davenport, IA through U.S. Gulf	87.20	86.69

2013 Summary

During 2013, Sorriso, North MT, soybean shippers to Shanghai paid $63-$71 per metric ton more than U.S. exporters through the U.S. Gulf and PNW routes; and almost $93 more than the transportation cost paid by Cruz Alta, RS, shippers.

Transportation cost differences between selected Brazil-United States Routes to Shanghai, China, 2012



Fargo, ND through PNW	94.41
Sioux Falls, SD through PNW	95.87
Davenport, IA, through U.S. Gulf	86.69
Sorriso, North MT, through Santos	157.36
Northwest RS, through Rio Grande	64.79

In 2013, truck rates (valued in reais) from Sorriso, North Mato Grosso (MT), to Santos and Paranaguá increased 13-15 percent. Truck rates from Cruz Alta, Rio Grande do Sul (RS) to Rio Grande declined slightly.

Truck rates for selected Brazilian soybean export routes, 2007-2013

Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	2007	2008	2009	2010	2011	2012	2013	Percent Change 12-13
				Reais/metric ton							
1	Northwest RS[3] (Cruz Alta)	Rio Grande	288	42.83	39.75	48.32	49.58	62.44	50.35	49.9	-0.9
2	North MT (Sorriso)	Santos	1190	190.37	206.25	191.73	205.40	206.03	218.00	250.6	15.0
3	North MT (Sorriso)	Paranaguá	1262	171.59	196.05	180.30	195.09	197.09	212.49	241.3	13.5
4	South GO (Rio Verde)	Santos	587	98.45	99.16	100.36	113.85	106.57	107.31	127.0	18.3
6	North Central PR (Londrina)	Paranaguá	268	62.89	60.78	54.50	60.70	66.07	67.92	69.0	1.6
11	Southeast MT (Primavera do Leste)	Santos	901	135.70	144.86	147.22	164.18	159.93	164.92	190.7	15.6

[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price.
[2]Distance from the main city of the considered region to the mentioned ports.
[3]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

In 2013, selected Brazilian export truck routes, measured in reais (R$), saw proportionally lower transportation costs, than those estimated in U.S. dollars due to the depreciation of the Brazilian real (R$) against the U.S. dollar. Truck rates from Cruz Alta, Rio Grande do Sul (RS) to Rio Grande declined nearly 10 percent. In 2013, the Brazilian real (R$) depreciated 10.3 percent against the US$ compared with 2012.

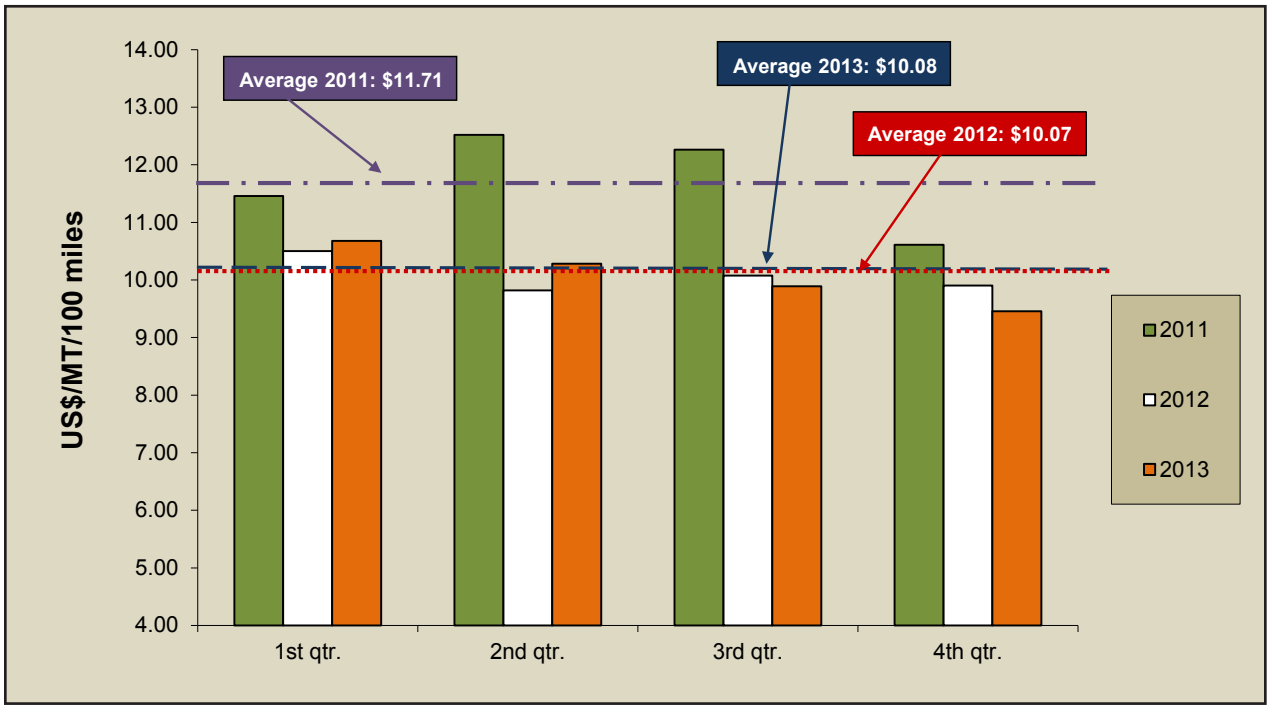
Truck rates for selected Brazilian soybean export routes, 2007-2013

Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	2007	2008	2009	2010	2011	2012	2013	Percent Change 12-13
				US$/metric ton							
1	Northwest RS[3] (Cruz Alta)	Rio Grande	288	21.82	22.29	24.50	28.18	37.54	25.83	23.26	-9.93
2	North MT (Sorriso)	Santos	1190	97.67	115.74	97.00	116.78	123.31	111.78	116.40	4.13
3	North MT (Sorriso)	Paranaguá	1262	88.05	109.90	91.36	110.94	117.90	108.93	111.93	2.75
4	South GO (Rio Verde)	Santos	587	50.47	55.33	50.83	64.71	63.92	55.02	58.90	7.06
6	North Central PR (Londrina)	Paranaguá	268	32.36	33.60	27.37	34.51	39.54	34.76	32.26	-7.18
11	Southeast MT (Primavera do Leste)	Santos	901	69.58	80.61	74.39	93.41	95.82	84.42	88.66	5.01

[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price.
[2]Distance from the main city of the considered region to the mentioned ports.
[3]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

The Brazilian soybean export transportation cost index slightly increased in 2013. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck increased from $10.07 in 2012 to $10.08 in 2013. A record soybean crop, port congestions, a new "Driver's Law" that reduced the number of hours a truck driver can work in a 24-hour period, and a weaker currency against the US$ encouraged shippers to increase exports from the ports of Rio Grande, São Francisco, São Luiz, Satarem, and Ileus.

Brazilian soybean export truck cost index

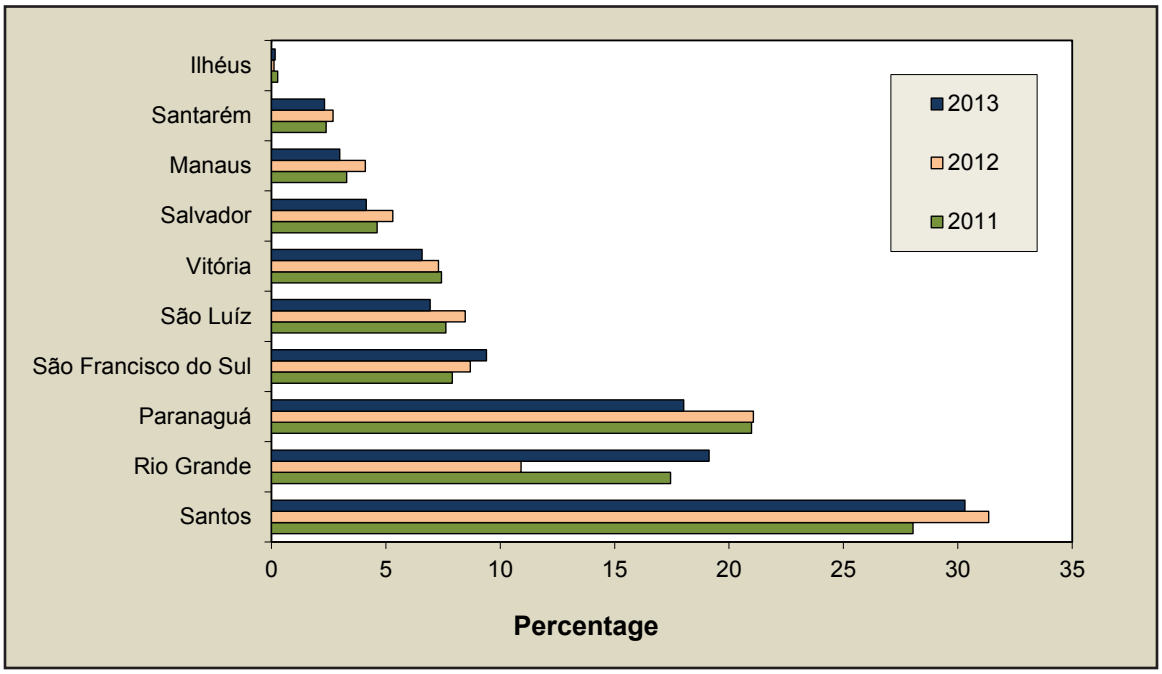


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2013 Summary

Brazil is the second largest soybean exporting country after the United States. In 2013, Santos was the largest Brazilian soybean export port followed by Rio Grande and Paranaguá. These 3 ports accounted for 67 percent of total exports. Soybean exports from the Port of Rio Grande increased significantly.

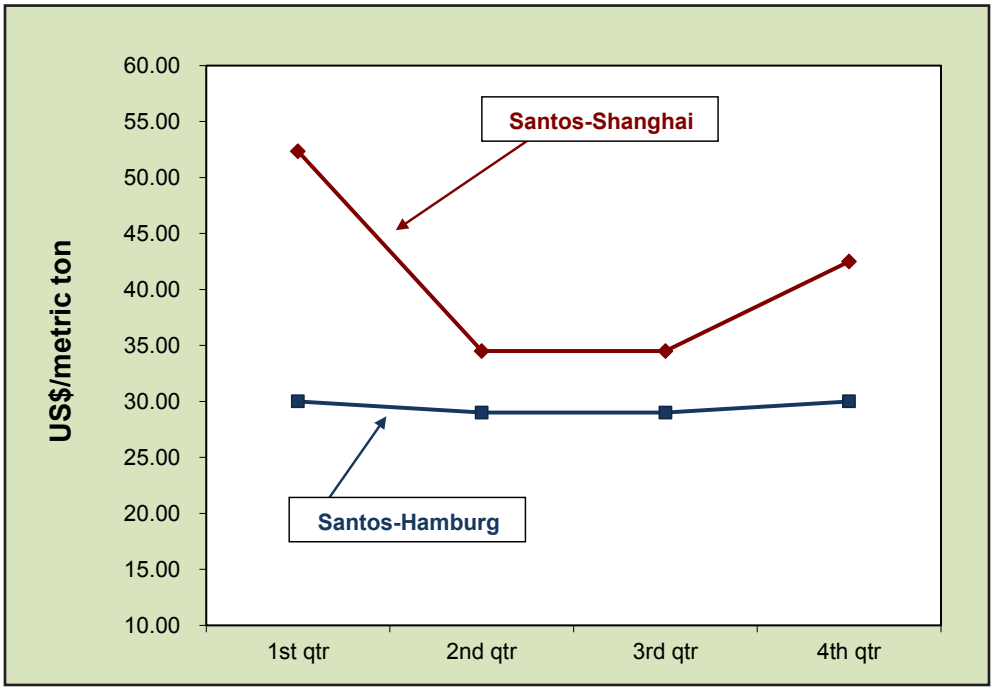
Brazil soybean exports by port



Sources: Secretariat of Foreign Trade (SECEX), MDIC, and Companhia Nacional de Abastecimento (CONAB)

In 2013, ocean rates from the Port of Santos to Shanghai, China, dropped in the 2nd quarter, slowly recovered in the second half of the year but still remained nearly 18 percent below 2012 rates, averaging $40.96/mt. Ocean rates to Hamburg decreased 7 percent from 2012 rates, averaging $29.50/mt.

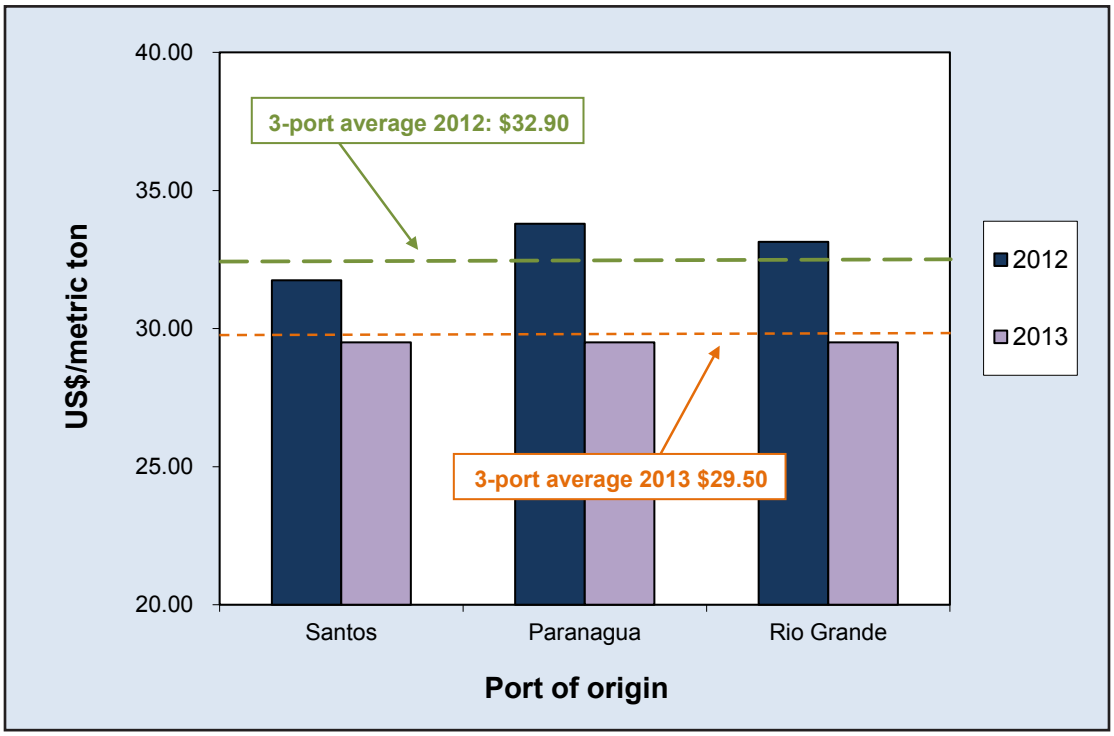
Brazilian soybean ocean freight from Santos to Shanghai and Hamburg, 2013



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

The cost to ship 1 mt of soybeans from Brazil to Hamburg by ocean-going vessel fell on average 10 percent from $32.90/mt to $29.50/mt.

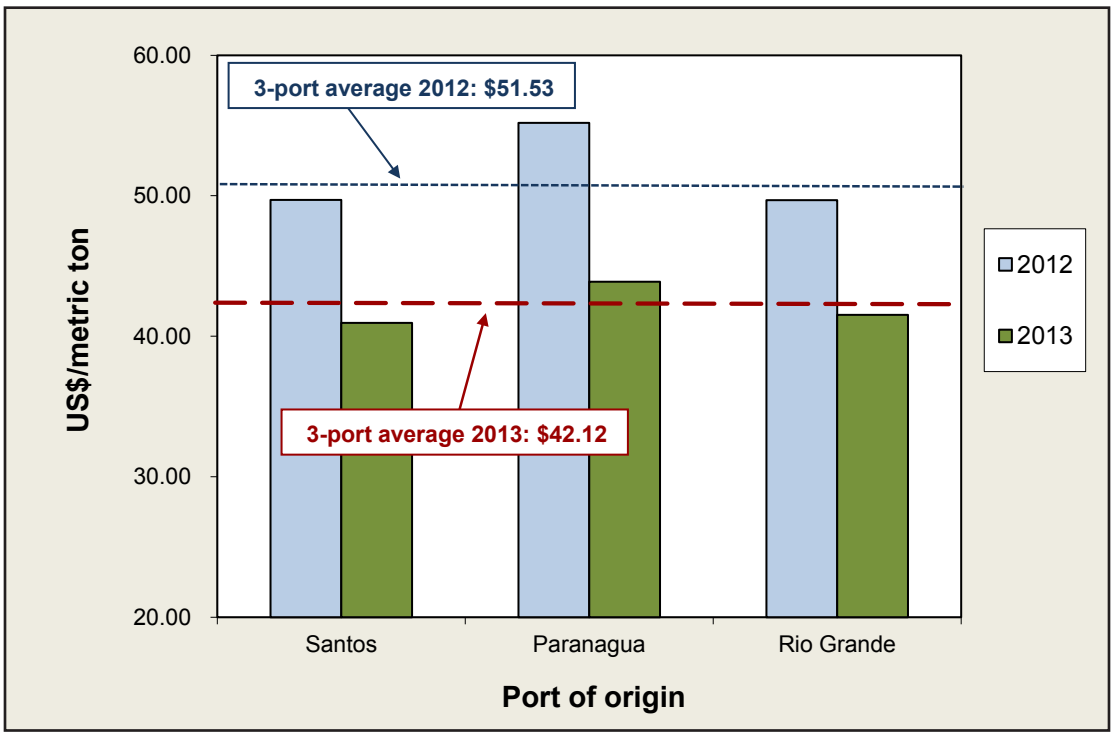
Ocean rates from Brazil to Hamburg, Germany, decreased in 2013



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

In 2013, the cost to ship 1 mt of soybeans from Brazil to Shanghai by ocean vessel dropped 16 percent on average from $51.53/mt to $42.12/mt.

Ocean rates from Brazil to Shanghai, China, declined in 2013

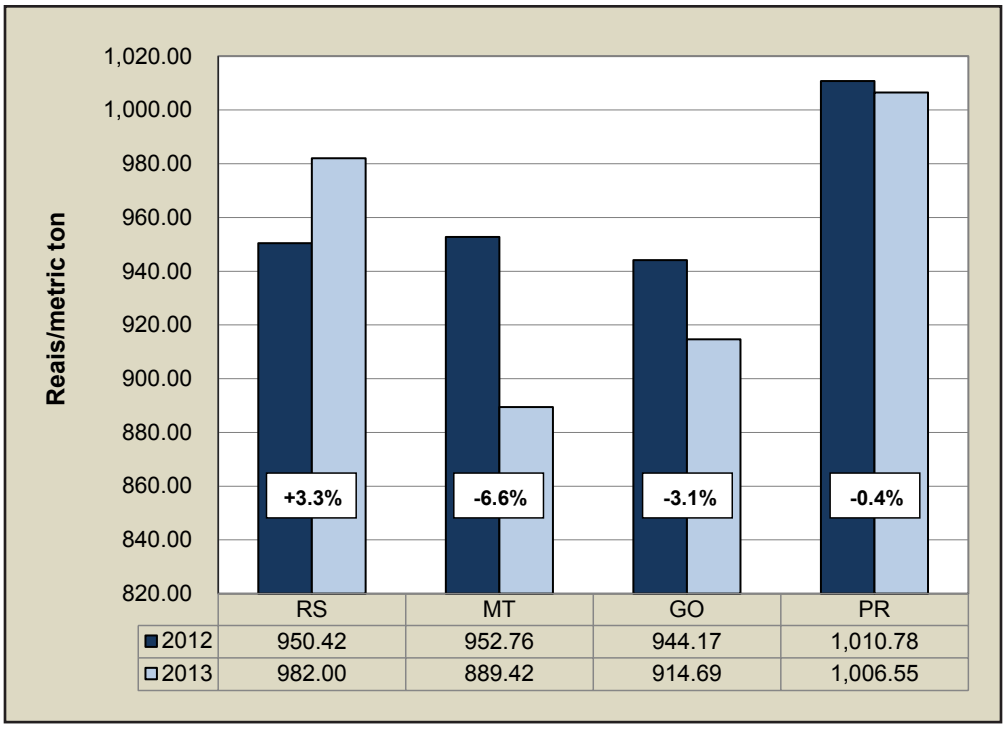


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2013 Summary

In 2013, farm prices in the Brazilian real (R$) decreased on average nearly 2 percent. Rio Grande do Sul (RS) farm prices increased 3 percent while in Mato Grosso (MT) declined 15 percent in 2013. However, when farm prices are measured in US$, they decreased proportionally more, 10 percent, from a year earlier, due to the depreciation of the real against the U.S. dollar.

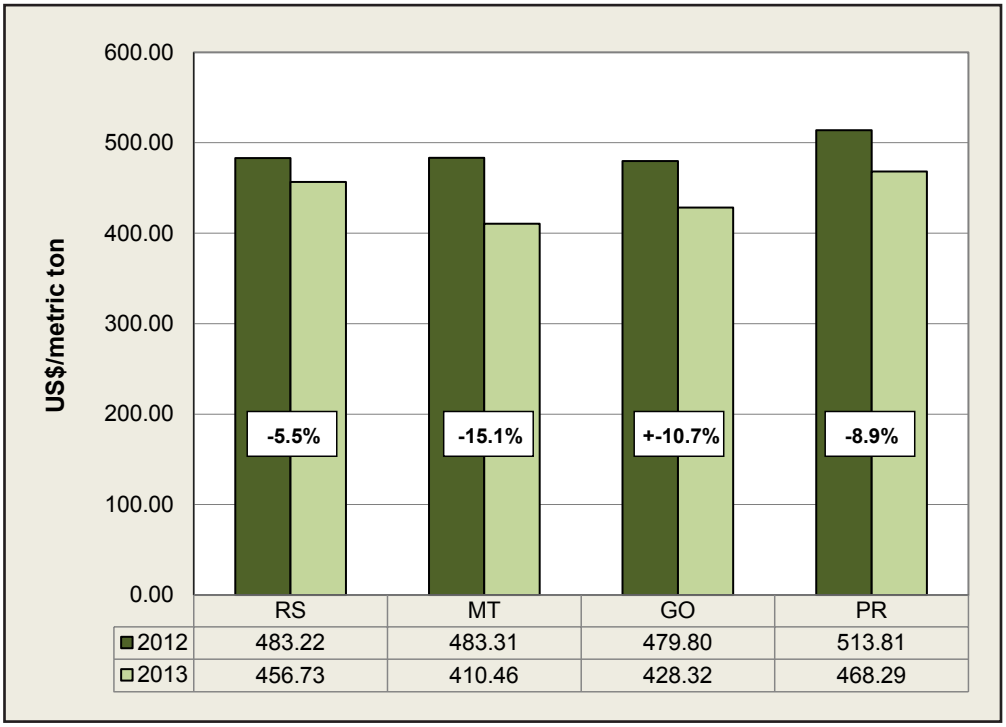
Selected Brazilian farm prices



	RS	MT	GO	PR
2012	950.42	952.76	944.17	1,010.78
2013	982.00	889.42	914.69	1,006.55

RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
Source: Companhia Nacional de Abastecimento (CONAB)

Selected Brazilian farm prices

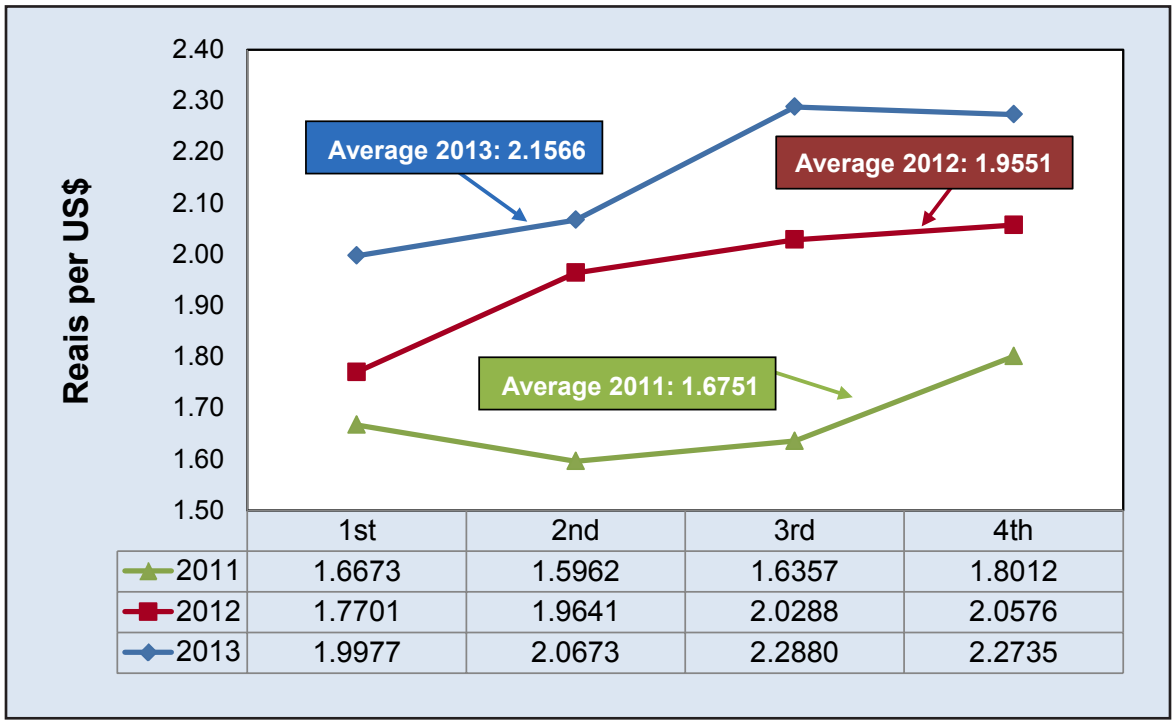


	RS	MT	GO	PR
2012	483.22	483.31	479.80	513.81
2013	456.73	410.46	428.32	468.29

RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
Source: Companhia Nacional de Abastecimento (CONAB)

In 2013, the Brazilian real (R$) depreciated 10.3 percent against the US$ compared with 2012, from R$1.95 per US$ to R$2.15.

Average quarterly exchange rate, real per U.S. dollar

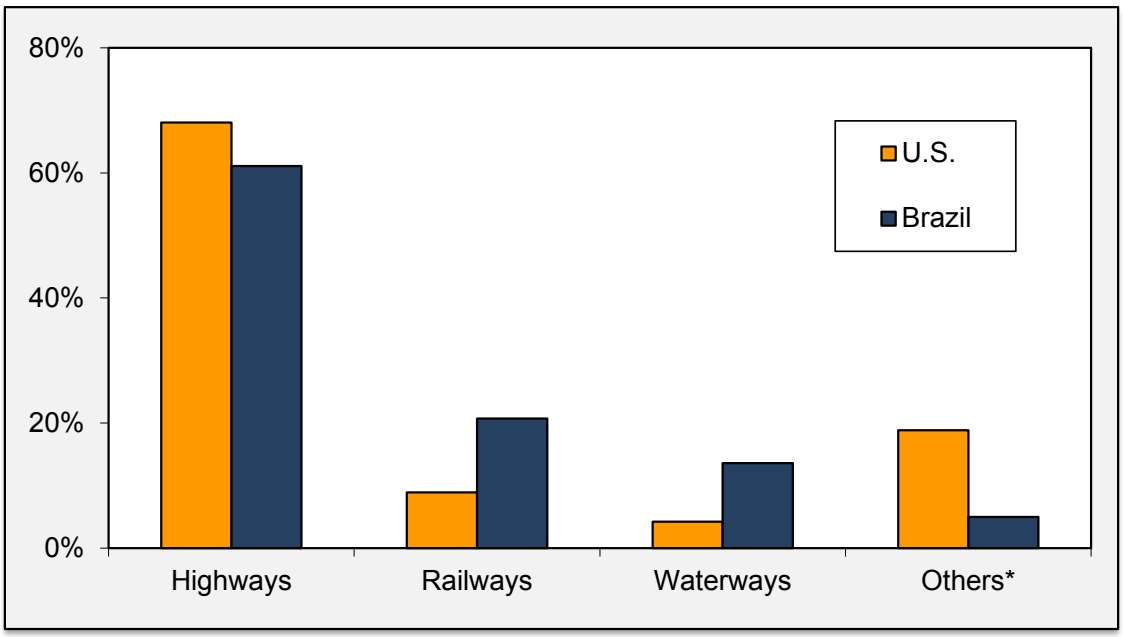


	1st	2nd	3rd	4th
2011	1.6673	1.5962	1.6357	1.8012
2012	1.7701	1.9641	2.0288	2.0576
2013	1.9977	2.0673	2.2880	2.2735

Source: Banco Central do Brasil

More than 60 percent of U.S. and Brazilian cargo is moved by truck.

U.S-Brazil modal share for general cargo



*Ocean, air, pipeline, multiplemodes, etc.
Source: U.S. Department of Transportation (DOT), 2009 latest data available;
Confederação Nacional do Transporte (CNT) and Agência Nacional de Transportes Terrestres (ANTT), 2007 latest data available.

2013 Summary

Brazil New Hours-of-Service Rule. On July 17, 2012, the Brazilian government implemented the first hours-of-service rules, called the "Driver's Law," to address safety issues. The new law reduced the number of hours a truck driver can work in a 24-hour period, likely raising transportation costs. The law is enforced by the Ministry of Labor and Transportation. Noncompliance with the law would result in a fine to the driver and the vehicle may be withheld until full rest is reached or the driver is replaced.

U.S.-Brazil Hours of Service Rules. The Brazilian rules are based on a 24-hour duty limit; the United States rules are based on a daily window of 14 hours with a maximum of 11 hours of driving and a 60/70-hour weekly on-duty limit (table 1). Brazilian drivers have a daily duty window of 13 hours with a maximum of 10 hours driving limit for every 24 hours of travel and a mandatory 35 hour weekly rest period. The U.S. duty limits are based on 60 hours over 7 consecutive days or 70 hours over 8 consecutive days with a voluntary 34 consecutive hour restart provision to begin a new weekly on−duty limit period. Brazilian rules require a 30−minute break every 4 hours of uninterrupted driving. Effective July 1, 2013, U.S. drivers will be required to take a 30-minute break if 8 hours have passed since their last off−duty period.

The United States first hours-of-service rules were issued in 1938. Since then, the law has been revised several times. In 1995, an agricultural exception for the planting and harvesting season was added. The current agricultural exemption states that drivers transporting agricultural commodities or farm supplies for agricultural purposes are exempt from hours-of-service rules within a 150-air-mile radius of the source of the agricultural commodity or the wholesale/retail distribution point of the farm supplies, within or across State lines, during the planting and harvesting seasons as determined by each state.

Regulation	United States	Brazil
Daily duty limit*	14 consecutive hours	13 consecutive hours
Driving limit	Maximum of 11 hours (after 10 consecutive hours off duty) within the 14 hour daily duty limit	10 hours (8 hrs. regular time + 2 hours of compensatory time) within the 13 hours limit
Daily rest requirement	10 hours, not based on a 24-hour period	11 hours every 24 hours
Weekly rest	Voluntary 34 consecutive hour or more restart provision to begin a new 7 or 8 day on−duty** period (see weekly limits)	35 hours
Breaks	30 minute off-duty break before 8 hours have passed since their last of off-duty period. Effective July 1, 2013	30 minute break every 4 hours of driving and 1 hour for meals
Weekly limits	60/70−Duty limit: drivers are not allowed to be on−duty more than 60 hours over 7 consecutive days or 70 hours over 8 consecutive days	
Restart provision	Drivers are allowed to use the voluntary 34-hour restart provision to begin a new 7 or 8 day on-duty**	
Adverse driving conditions exception[1]	2 extra hours more than allowed under normal conditions	1 extra hour

*Include work, meals, and mandatory rest

**On- duty time includes all time drivers are working for a motor carrier, whether paid or not, and all time the driver is doing paid work for anyone else such as time at plant terminal, loading, unloading, handling paper work, drug and alcohol testing, inspecting or servicing the truck (fueling and washing the washing the truck); The restart provision can only be used once per week and must include two periods from 1:00 AM to 5:00 AM, based on home terminal time. It is intended to provide sufficient time for a driver to recuperate from cumulative fatigue if they work beyond the weekly maximum on-duty limits.

[1] Means the driver did not know about the conditions when it started the run such as snow, fog or shut down traffic due to a crash. It does not include situations that the driver should know about, like congested traffic during typical rush hour.

Transportation Infrastructural Developments

The Brazilian government plans to change the current cargo transportation matrix by developing an integrated intermodal system. The intention is that within 15 to 20 years, railways' participation will increase from 25 to 35 percent; waterways from 13 to 29 percent; and truck shipments will be reduced by 28%, from 58 to 30 percent. To modify the transportation matrix, in January 2007, the Brazilian government created the Growth Acceleration Plan 1 (PAC 1) to promote sustainable social and economic development by generating employment, income, and reducing regional inequalities. During the same year, the PAC was integrated into the National Plan of Logistic and Transportation (PNLT). The PNLT is executed through the Ministry of Transportation and Defense allocating funds in 3 phases from 2008 to 2023. By March 2010, the Government announced the second Growth Acceleration Plan (PAC 2), 2011-2014.

The ninth evaluation results of Growth Acceleration Program 2 (PAC 2), 2011-2013, showed that Brazil did not finish the projects as planned. However, the Midwest agricultural exporters gained from selected strategic port improvements, extended railways miles and a new intermodal grain terminal. Some of the port improvements include: dredging in the ports of: Santos (SP), Sáo Francisco do Sul (SC), and Rio Grande (RG); Port of port of Itaquí (MA) expansion and building pier 100; Sáo Francisco do Sul (SC) Pier 102 restoration; and Port of Vila do Conde (PA) main pier expansion.

Three railroad projects are underway and scheduled to finish by the end of 2015.

1. Ferronorte railroad (Rondonópolis-Alto Araguaia), finished 153 railway miles, including an intermodal yard in Rondonópolis facilitating the flow of grains from Mato Grosso (MT) to the southern port of Santos.

2. By November 30, 2014, the North-South railroad (Palmas,Tocantinas (TO)-Estela D'Oeste, São Paulo (SP)) is expected to be finished. This railroad integrates 4 states: TO, Goiás (GO), Minas Gerais (MG),and SP with access to the northeastern port of Itaquí-Sâo Luis (MA).

3. By the end of 2015, the East-West railroad (Ilheusin-Caetité-Port of Ilhéus Bahia (BA)) will facilitate of grain from the midwest, north and northeast to Ilhéus.

By December 30, 2015, BR-163 (began in PAC 1), 619 miles, connecting Brazil's Midwest to the Amazon River, will be completed. BR-163 will significantly reduce transportation costs to the Amazon River ports, on the Brazil—Europe route. It will shift soybeans exports to Europe from the southern ports to the north. However, it is less likely that the Brazil–China route would be significantly affected because it requires a major cost reduction of inland transportation to offset the increase in ocean rates—due to 7 or 8 additional days at sea—through South Africa's Cape of Good Hope to China.

Growth Acceleration Program 2 (PAC 2), 9th evaluation results, 2011-2013

Transportation Mode	2011-2013	
	km	miles
Highways		
Completed	3,080	1,910
Initiated	274	170
Work in progress	6,915	4,287
Total	10,269	6,367
Railways		
Completed	639	396
Work in progress	2,471	1,532
Total	3,110	1,928
Ports — Modernization and increase capacity and inland waterways		
Ports	21 projects	
Inland Waterways		
Tietê waterway improvements	6.4	

Source: Brazilian Ministry of Transportation, PAC 2; http://www.transportes.gov.br/; Accessed 3-10-14

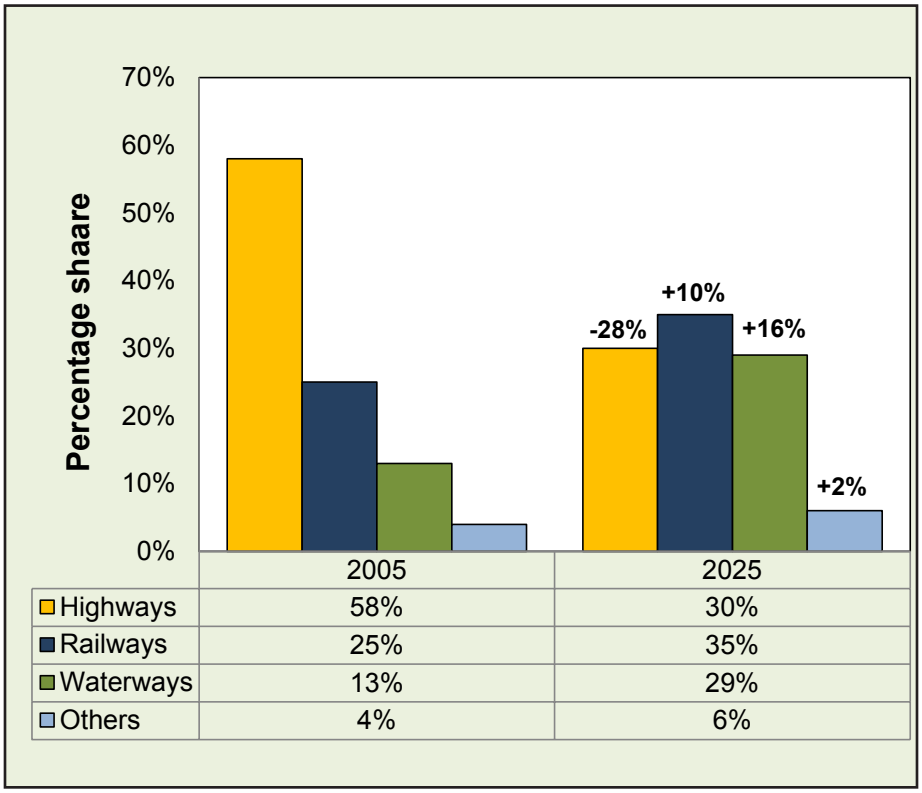
Transportation Infrastructural Developments

Select infrastructural improvements status, Growth Acceleration Program 2 (PAC 2)
9th evaluation results, 2011-2013

Transportation Mode	2011-2013		% finished	Expected date of completion/notes
	km	miles		
Highways				
BR-163: Guarantã do Norte, Mato Grosso (MT)-Santarém, Pará (PA), including access to Mirítituba-BR-230 (PA)	999	619		Dec. 30, 2015. It connects North MT-PA to the Amazon port of Santarém.
Completed	277	172	27.7	
Work in progress status by segment:	722	448	72.3	
Segment III: Divisa (MT)-Guarantã do Norte (MT) and Travesia Urbana de Guarantá	52	32	100	
Segment II: Rurópolis-Divisa (MT) with access to Mirítituba (BR-230 (PA)-33 km (20 miles) Divisa MT, total: 822 km (510 miles)	822	510	22.4	Dec. 20, 2015
Segment I: Santarém- Rurópolis (PA)	125	78	32.8	Oct. 31, 2015
Total:	999	619		
Railways				
Ferronorte extension: Rondonópolis-Alto Araguaia (MT), including Intermodal Yard Rondonópolis (MT), 52 miles (84 km). In additon, to the previous 101.1 miles (163 km) built in the PAC 1, totaling 153 miles.	247	153	100	Note: this new terminal facilitates the flow of grains exports from MT to the southern port of Santos (SP).
North-South: Palmas,Tocantinas (TO)-Estela D'Oeste, São Paulo (SP).	1,536	952		Nov. 30, 2014. It integrates 4 states: TO, Goiás (GO), Minas Gerais (MG),and SP with access to the northestern port of Itaquí-Sâo Luis (MA).
Completed	283	175	18.4	
Work in progress	1254	777	81.6	
North-South segment status updates:				
Segment I: Palmas (TO)-Anápolis (GO): total 855 km	855	530		March 31, 2014: Finished 410 km (254 miles).
-Palmas (TO)--Uruguaçu (GO)	575	357	94.8	March 31, 2014
-Uruguaçu (GO)-Anápolis (GO)	280	174	91.2	March 31, 2014
Segment II: Ouro Verde/GO-Estela D'Oeste/SP	681	422	53.0	Nov. 30, 2014
East-West: Ilheusin-Caetité-Port of Ilhéus Bahia (BA)	1,022	634		Dec. 30, 2015. It connects Barreiras (BA) with the northeastern port of Ilhéus (BA)
Completed	200	124	37.3	
Work in progress	822	509	80.4	
East-West segment status updates:				
Segment I: Caetité (BA)-Port of Ilhéus (BA)	537	333	37.3	Dec. 30, 2014
Segment II: Ilheusin (BA)-Caetité Bahia (BA)	485	301		Dec 30, 2015: Project status: bidding process
Ports — Modernization and increase capacity				
Dredging in 7 ports of: Santos (SP), Sáo Francisco do Sul (SC), Natal (RN), Fortaleza (CE), Itajaí (SC), Rio de Janeiro (RJ), and Suape (PE)			100	
Rio Grande do Sul (RS): Pier expansions			100	
Itaquí (MA): build pier 100, south pier enlargement and port expansion			100	The Port of Itaqui is a natural port with an average access channel of 98 feet (30 meters) an a minimum depth of 88.6 feet (27 meters), and a length of 5,904 feet (1,800 meters). The dock depth is 29.5 − 62.3 feet (9−19 meters). The terminal of Ponta Madeiras access channel ranges between 75.4 to 114.8 feet (23 to 35 meters).
Vitoria (ES): recovery, enlargement and extension of commercial wharf Victoria Harbor			100	
Sáo Francisco do Sul (SC): Pier 102 restoration			100	
Port of Vila do Conde (PA): expansion of main pier			100	

Source: Brazilian Ministry of Transportation, PAC 2; http://www.transportes.gov.br/; Accessed 3-10-14

Brazil modal share for general cargo, 2005-2025



Source: Brazil Ministry of Transportation, National Plan of Logistic & Transportation (PNLT)

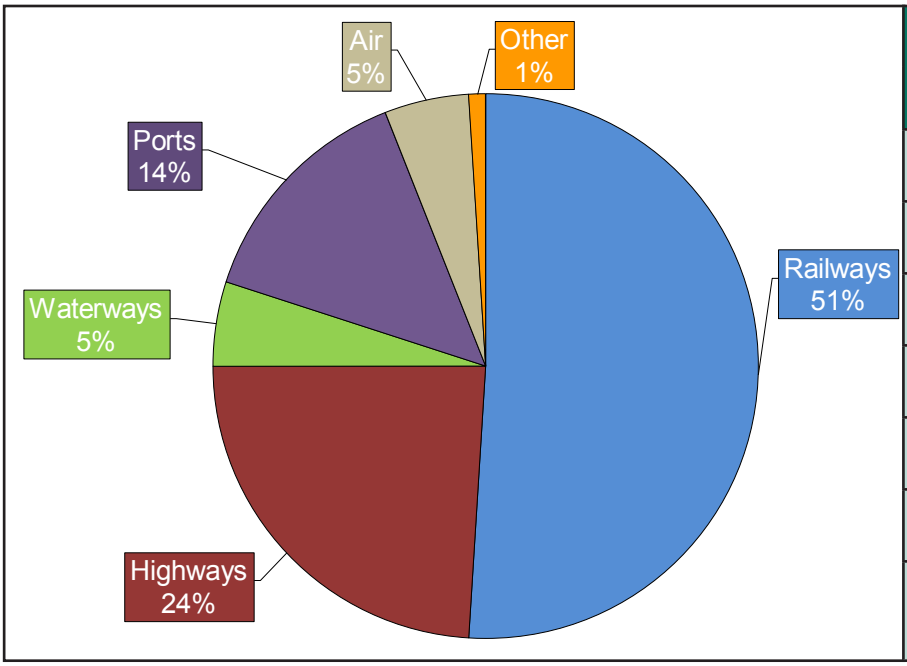
National Logistics and Transportation Program (PNLT), timeframe 2008 — after 2015, billions			
Phases	**Total (billions)**		**% share**
	R$	**US$**	
I: 2008-2011	109.2	54.7	37.55
II: 2013-2015	84.3	42.2	28.99
III: 2015-2023	97.3	48.7	33.46
Total	290.8	145.6	100

*Average 2009 exchange rate: 1 US$ = R$ 1.9977
Source: Brazilian Ministry of Transportation

Transportation Infrastructural Developments

Of the US$ 145.6 billion to be allocated to the logistic sector, about 51 percent of the funds will be allocated to the railway system, totaling about US$75.2 billion.

National Logistics and Transportation Program (PNLT), allocations by mode, 2008-2023

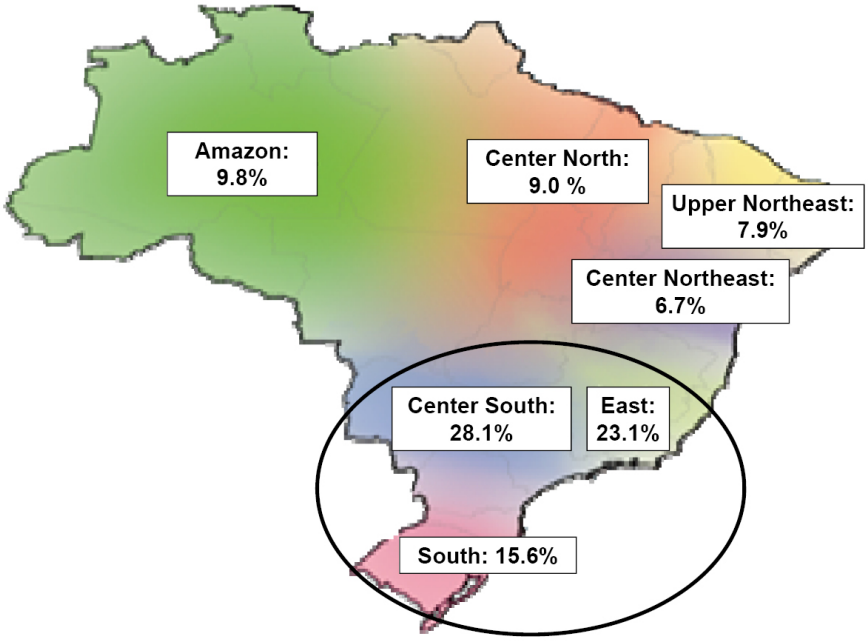


Mode	Total (billion)	
	R$	US$
Air	13.0	6.5
Railways	150.1	75.2
Inland waterways	15.8	7.9
Ports	38.9	19.5
Highways	69.7	34.9
Other	3.2	1.6
Total	290.8	145.6

Average 2009 exchange rate: 1 US$ = R$ 1.9977
Source: Brazil Ministry of Transportation

Two-thirds of the funds will be allocated in the Center-South, East, and South regions.

PNLT allocation by logistic vectors



Source: Brazil Ministry of Transportation

US$7.8 billion are assigned to improve the inland waterways: 61 percent of the funds will be allocated to improve the inland waterways in the Amazon and Center North regions; 62 percent of the port funds will be allocated to improve the ports in the East and Center South; and 34 percent of highway funds will be allocated to improve the highway system of the Amazon and South regions.

PNLT — Transportation mode investments by logistic vectors, and % of total								
Mode	**Amazon**	**Center-North**	**Center-South**	**East**	**Center Northeast**	**Upper Northeast**	**South**	**Total**
Air	5.27	6.56	28.20	20.81	2.76	25.04	11.35	100
Railways	6.82	6.24	37.42	24.18	5.89	4.54	14.92	100
Inland waterways	31.34	29.67	12.98	9.57	1.73	1.02	13.69	100
Ports	2.61	8.69	20.84	41.50	4.03	5.33	17.00	100
Highways	16.50	9.11	15.47	14.55	12.01	14.40	17.96	100
Other	-	49.30	24.33	7.18	0.45	16.50	2.50	100
% of Brazil	**9.9**	**9.2**	**11.3**	**9.6**	**20.4**	**22.7**	**16.9**	**100**

*Average 2009 exchange rate: 1 US$ = R$ 1.9977
Source: Brazilian Ministry of Transportation

Transportation Indicators

Quarterly costs of transporting Brazilian soybeans to Shanghai, China										
	2013					2013				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT[1] - Santos[2] --US$/mt--					North MT[1] - Paranaguá[2] --US$/mt--				
Truck	124.03	112.38	119.90	109.29	116.40	115.68	108.27	117.06	106.71	111.93
Ocean	52.34	34.50	34.50	42.50	40.96	56.03	36.75	36.75	46.00	43.88
Total transportation	176.37	146.88	154.40	151.79	157.36	171.71	145.02	153.81	152.71	155.81
Farm price[3]	419.35	391.58	404.93	445.27	415.28	419.35	391.58	404.93	445.27	415.28
Landed cost	595.72	538.47	559.33	597.06	572.64	591.06	536.60	558.74	597.97	571.09
Transport % of landed cost	29.6	27.3	27.6	25.4	28.4	29.1	27.0	27.5	25.5	27.3
	Southeast MT[1] - Santos[2] --US$/mt--					North Central PR[1] - Paranaguá[2] --US$/mt--				
Truck	96.46	86.85	90.29	81.02	88.66	37.04	35.62	28.94	27.46	32.26
Ocean	52.34	34.50	34.50	42.50	40.96	56.03	36.75	36.75	46.00	43.88
Total transportation	148.80	121.35	124.79	123.52	129.62	93.07	72.37	65.69	73.46	76.15
Farm price[3]	419.35	391.58	404.93	445.27	415.28	476.22	461.97	453.28	491.15	470.66
Landed cost	568.15	512.93	529.73	568.79	544.90	569.28	534.34	518.98	564.61	546.80
Transport % of landed cost	26.2	23.7	23.6	21.7	23.8	16.3	13.5	12.7	13.0	13.9
	South GO[1] - Santos[2] --US$/mt--					Northwest RS[1] - Rio Grande[2] --US$/mt--				
Truck	59.14	57.40	53.58	65.49	58.90	25.96	23.96	22.76	20.37	23.26
Ocean	52.34	34.50	34.50	42.50	40.96	51.34	35.25	35.25	44.25	41.52
Total transportation	111.48	91.90	88.08	107.99	99.86	77.30	59.21	58.01	64.62	64.79
Farm price[3]	445.56	419.62	405.90	441.17	428.06	460.13	459.96	448.29	468.92	459.33
Landed cost	557.05	511.52	493.98	549.16	527.93	537.43	519.17	506.30	533.54	524.11
Transport % of landed cost	20.0	18.0	17.8	19.7	18.9	14.4	11.4	11.5	12.1	12.3

[1]Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports
[3]Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Quarterly costs of transporting Brazilian soybeans to Hamburg, Germany										
	2013					2013				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT[1] - Santos[2] --US$/mt--					North MT[1] - Paranaguá[2] --US$/mt--				
Truck	124.03	112.38	119.90	109.29	116.40	115.68	108.27	117.06	106.71	111.93
Ocean	30.00	29.00	29.00	30.00	29.50	30.00	29.00	29.00	30.00	29.50
Total transportation	154.03	141.38	148.90	139.29	145.90	145.68	137.27	146.06	136.71	141.43
Farm price[3]	419.35	391.58	404.93	445.27	415.28	419.35	391.58	404.93	445.27	415.28
Landed cost	573.38	532.97	553.83	584.56	561.18	565.03	528.85	550.99	581.97	556.71
Transport % of landed cost	26.9	26.5	26.9	23.8	26.0	25.8	26.0	26.5	23.5	25.4
	Southeast MT[1] - Santos[2] --US$/mt--					North Central PR[1] - Paranaguá[2] --US$/mt--				
Truck	96.46	86.85	90.29	81.02	88.66	37.04	35.62	28.94	27.46	32.26
Ocean	30.00	29.00	29.00	30.00	29.50	30.00	29.00	29.00	30.00	29.50
Total transportation	126.46	115.85	119.29	111.02	118.16	67.04	64.62	57.94	57.46	61.76
Farm price[3]	419.35	391.58	404.93	445.27	415.28	476.22	461.97	453.28	491.15	470.66
Landed cost	545.81	507.43	524.23	556.29	533.44	543.25	526.59	511.23	548.61	532.42
Transport % of landed cost	23.2	22.8	22.8	20.0	22.2	12.3	12.3	11.3	10.5	11.6
	South GO[1] - Santos[2] --US$/mt--					Northwest RS[1] - Rio Grande[2] --US$/mt--				
Truck	59.14	57.40	53.58	65.49	58.90	25.96	23.96	22.76	20.37	23.26
Ocean	30.00	29.00	29.00	30.00	29.50	30.00	29.00	29.00	30.00	29.50
Total transportation	89.14	86.40	82.58	95.49	88.40	55.96	52.96	51.76	50.37	52.76
Farm price[3]	445.56	419.62	405.90	441.17	428.06	460.13	459.96	448.29	468.92	459.33
Landed cost	534.71	506.02	488.48	536.66	516.47	516.09	512.92	500.05	519.29	512.09
Transport % of landed cost	16.7	17.1	16.9	17.8	17.1	10.8	10.3	10.4	9.7	10.3

[1]Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná
[2]Export ports
[3]Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Transportation Indicators

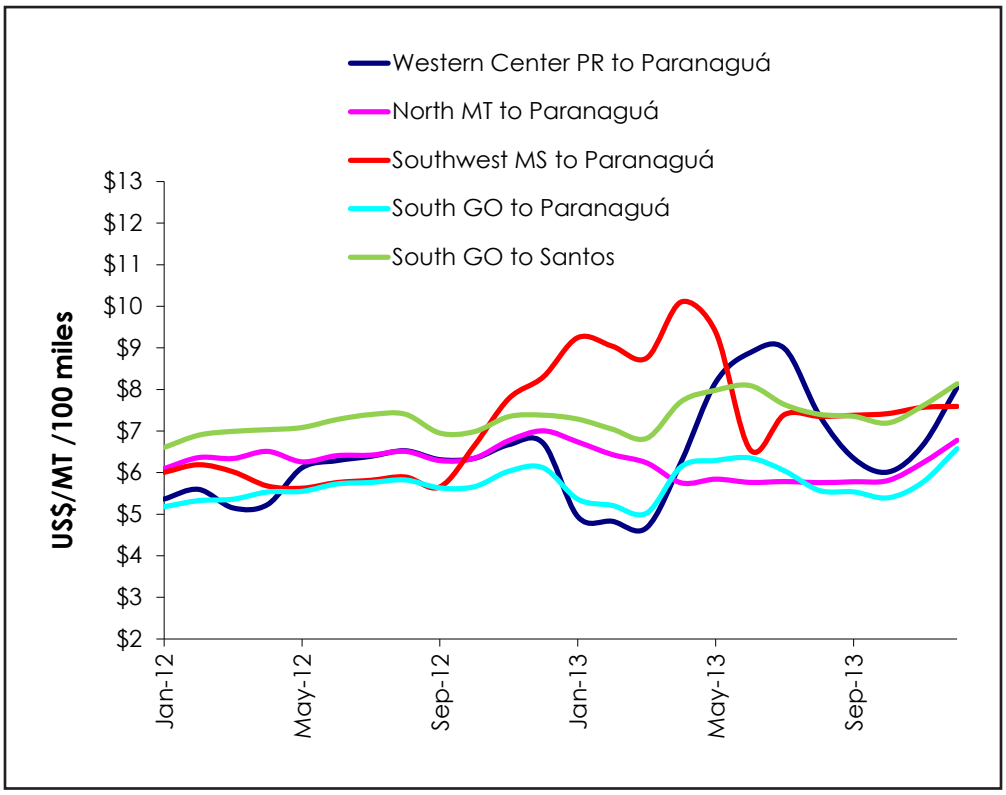
Truck rates for selected Brazilian soybean export transportation routes, 2013									
Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	Share (%)[3]	Freight Price (US$) 1st	2nd	3rd	4th ------- (per 100 miles)[4]-------	Avg
1	Northwest RS[5] (Cruz Alta)	Rio Grande	288	13.6	9.01	8.32	7.90	7.07	8.08
2	North MT (Sorriso)	Santos	1190	11.7	10.42	9.44	10.08	9.18	9.78
3	North MT (Sorriso)	Paranaguá	1262	11.1	9.17	8.58	9.28	8.46	8.87
4	South GO (Rio Verde)	Santos	587	5.4	10.08	9.78	9.13	11.16	10.03
5	South GO (Rio Verde)	Paranaguá	726	4.4	7.74	7.46	10.07	12.24	9.38
6	North Central PR (Londrina)	Paranaguá	268	4.2	13.82	13.29	10.80	10.25	12.04
7	Western Central PR (Mamborê)	Paranaguá	311	3.3	11.63	11.94	9.87	9.30	10.69
8	Triangle MG (Uberaba)	Santos	339	2.7	12.99	10.70	10.86	13.13	11.92
9	West PR (Assis Chateaubriand)	Paranaguá	377	3.3	11.66	11.51	9.52	9.25	10.49
10	West Extreme BA (São Desidério)	Salvador	535	5.7	11.28	11.01	10.97	9.32	10.65
11	Southeast MT (Primavera do Leste)	Santos	901	3.1	10.71	9.64	10.02	8.99	9.84
12	Southeast MT (Primavera do Leste)	Paranaguá	975	2.9	8.33	7.52	7.93	7.16	7.74
13	Southwest MS (Maracaju)	Paranaguá	612	3.1	10.28	10.12	9.14	8.01	9.39
14	Southwest MS (Maracaju)	Santos	652	2.9	11.01	11.00	10.12	8.86	10.25
15	West PR (Assis Chateaubriand)	Santos	550	2.2	10.26	9.44	7.42	6.99	8.53
16	East GO (Cristalina)	Santos	585	2.0	11.69	11.31	10.35	12.78	11.53
17	North PR (Cornélio Procópio)	Paranaguá	306	2.3	9.98	14.92	13.08	12.32	12.58
18	Eastern Central PR (Castro)	Paranaguá	130	2.6	21.09	21.47	17.82	16.78	19.29
19	South Central PR (Guarapuava)	Paranaguá	204	2.5	17.16	16.53	13.41	12.63	14.93
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.8	9.83	9.51	8.76	7.78	8.97
21	Ribeirão Preto SP (Guairá)	Santos	314	0.0	11.68	11.36	10.91	10.83	11.19
22	Northeast MT (Canarana)	Santos	950	2.3	10.53	10.16	11.00	10.03	10.43
23	East MS (Chapadão do Sul)	Santos	607	0.0	11.88	11.91	11.62	10.24	11.41
24	Northeast MT (Canarana)	Paranaguá	1075	2.0	4.74	4.92	5.32	4.85	4.96
25	Western Central RS (Tupanciretã)	Rio Grande	273	2.4	11.17	10.91	10.28	8.97	10.33
26	Southwest PR (Chopinzinho)	Paranaguá	291	2.3	13.15	12.89	12.35	11.89	12.57
Average			**578**	**100.0**	**10.68**	**10.28**	**9.89**	**9.46**	**10.08**

[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price; na = not available
[2]Distance from the main city of the considered region to the mentioned ports
[3]Share is measured as a percentage of total production
[4]US$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)
[5]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Truck rates for selected Brazilian soybean export transportation routes, 2009-2013										
Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	Share (%)[3]	2009	2010	2011	2012	2013	Percent Change 2012-13
					Freight price					
1	Northwest RS[5] (Cruz Alta)	Rio Grande	288	10.81	24.50	28.18	37.54	25.83	23.26	-9.9
2	North MT (Sorriso)	Santos	1190	13.02	97.00	116.78	123.31	111.78	116.40	4.1
3	North MT (Sorriso)	Paranaguá	1262	12.27	91.36	110.94	117.90	108.93	111.93	2.8
4	South GO (Rio Verde)	Santos	587	6.26	50.83	64.71	63.92	55.02	58.90	7.1
5	South GO (Rio Verde)	Paranaguá	726	5.06	50.81	64.64	62.90	52.94	68.08	28.6
6	North Central PR (Londrina)	Paranaguá	268	4.08	27.37	34.51	39.54	34.76	32.26	-7.2
7	Western Central PR (Mamborê)	Paranaguá	311	3.63	29.03	32.21	38.14	31.02	33.23	7.1
8	Triangle MG (Uberaba)	Santos	339	3.18	44.69	54.49	57.43	45.04	40.42	-10.3
9	West PR (Assis Chateaubriand)	Paranaguá	377	6.21	31.17	41.46	46.12	38.39	39.53	3.0
10	West Extreme BA (São Desidério)	Ilhéus	544	5.69	53.06	55.89	57.85	58.00	56.96	-1.8
11	Southeast MT (Primavera do Leste)	Santos	901	2.89	74.39	93.41	95.82	84.42	88.66	5.0
12	Southeast MT (Primavera do Leste)	Paranaguá	975	2.67	71.37	87.66	93.55	76.93	75.43	-1.9
13	Southwest MS (Maracaju)	Paranaguá	612	3.34	48.41	65.92	64.59	58.87	57.46	-2.4
14	Southwest MS (Maracaju)	Santos	652	3.14	53.87	71.27	71.73	67.83	66.82	-1.5
15	West PR (Assis Chateaubriand)	Santos	550	0.00	60.60	68.84	73.04	55.31	46.89	-15.2
16	Western Center RS (Tupanciretã)	Rio Grande	273	1.17	24.20	30.62	31.40	62.73	67.47	7.6
17	Southwest PR (Chopinzinho)	Paranaguá	291	1.87	27.33	30.68	34.02	29.85	38.48	28.9
18	Eastern Central PR (Castro)	Paranaguá	130	2.47	16.36	25.88	26.55	23.87	25.08	5.0
19	South Central PR (Guarapuava)	Paranaguá	204	2.23	22.98	33.26	36.23	32.37	30.46	-5.9
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.83	54.93	69.62	70.45	63.40	64.58	1.9
21	Ribeirão Preto SP (Guairá)	Santos	314	0.00	34.82	42.19	42.16	37.18	35.15	-5.5
22	Northeast MT (Canarana)	Santos	950	2.12	85.43	107.72	114.22	97.31	99.10	1.8
23	Assis SP (Palmital)	Santos	285	0.00	23.26	30.36	30.23	62.88	69.28	10.2
24	Northeast MT (Canarana)	Paranaguá	1075	1.87	80.54	112.65	115.15	86.74	53.29	-38.6
25	Western Central RS (Tupanciretã)	Rio Grande	273	2.25	22.89	24.73	40.92	30.84	28.20	-8.6
26	Southwest PR (Chopinzinho)	Paranaguá	291	1.98	30.59	38.91	44.03	37.04	36.59	-1.2
Average			**626**	**100.0**	**54.70**	**67.23**	**73.32**	**58.23**	**58.24**	**0.02**

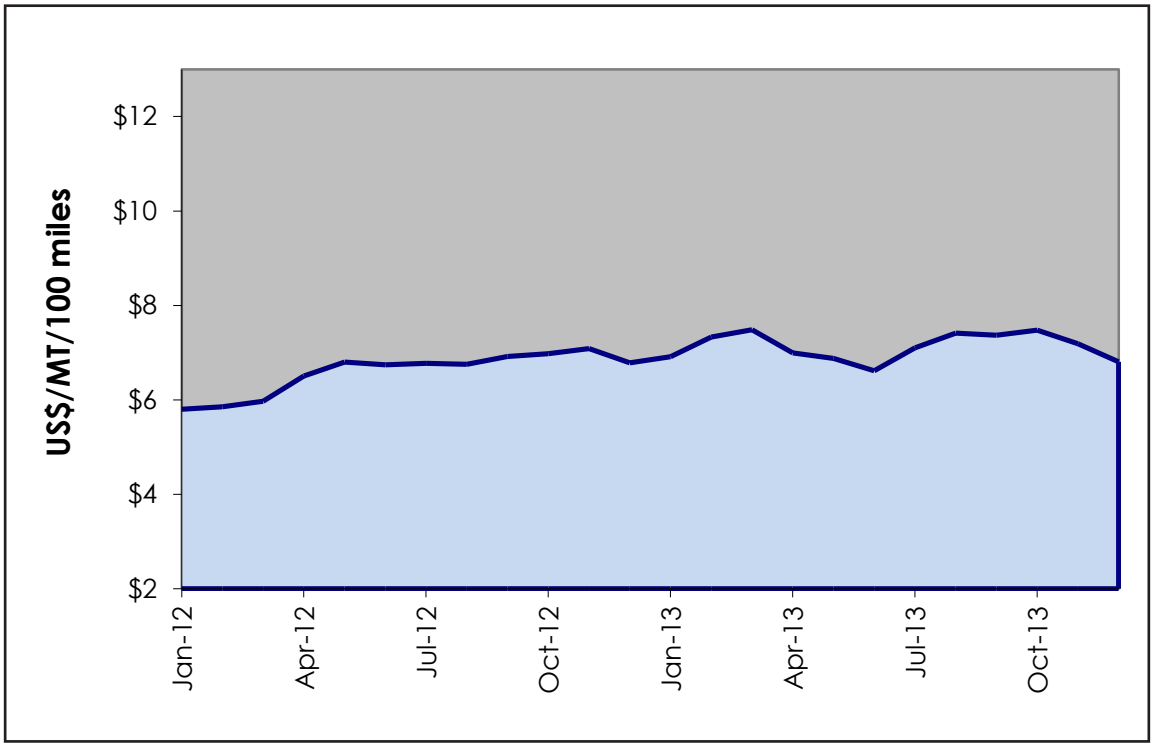
[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price; na = not available
[2]Distance from the main city of the considered region to the mentioned ports
[3]Share is measured as a percentage of total production
[4]US$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)
[5]RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Truck rates for selected Brazilian soybean export transportation routes



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Brazilian soybean export truck transportation weighted average prices, 2012/13



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Monthly Brazilian soybean export truck transportation cost index							
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)	Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan-06	6.91	1.9	119.18	Jan-10	9.17	1.7	158.10
Feb-06	7.33	6.0	126.36	Feb-10	9.99	8.9	172.16
Mar-06	7.48	2.1	129.02	Mar-10	10.77	7.8	185.67
Apr-06	6.99	-6.6	120.57	Apr-10	10.91	1.3	188.10
May-06	6.88	-1.7	118.56	May-10	10.80	-1.1	186.10
Jun-06	6.62	-3.8	114.05	Jun-10	10.61	-1.7	182.95
Jul-06	7.10	7.3	122.41	Jul-10	10.86	2.3	187.14
Aug-06	7.41	4.4	127.79	Aug-10	11.21	3.3	193.23
Sep-06	7.37	-0.6	127.02	Sep-10	11.46	2.2	197.57
Oct-06	7.48	1.5	128.88	Oct-10	11.51	0.4	198.41
Nov-06	7.19	-3.8	123.92	Nov-10	10.86	-5.6	187.20
Dec-06	6.81	-5.3	117.32	Dec-10	10.72	-1.3	184.79
Jan-07	6.88	1.1	118.60	Jan-11	10.84	1.1	186.89
Feb-07	7.55	9.7	130.15	Feb-11	11.21	3.4	193.30
Mar-07	8.47	12.2	146.00	Mar-11	12.07	7.6	208.04
Apr-07	8.40	-0.9	144.76	Apr-11	13.30	10.2	229.22
May-07	8.12	-3.3	140.05	May-11	12.01	-9.7	207.04
Jun-07	8.24	1.4	141.99	Jun-11	12.25	2.0	211.20
Jul-07	9.00	9.3	155.20	Jul-11	12.72	3.9	219.34
Aug-07	8.63	-4.2	148.75	Aug-11	12.64	-0.7	217.84
Sep-07	9.23	6.9	159.05	Sep-11	11.43	-9.6	196.95
Oct-07	9.72	5.4	167.61	Oct-11	11.09	-3.0	191.10
Nov-07	9.56	-1.6	164.86	Nov-11	10.70	-3.4	184.52
Dec-07	9.32	-2.5	160.71	Dec-11	10.04	-6.2	173.00
Jan-08	9.40	0.9	162.12	Jan-12	10.20	1.7	175.90
Feb-08	9.63	2.4	166.02	Feb-12	10.76	5.4	185.45
Mar-08	10.59	9.9	182.46	Mar-12	10.55	-2.0	181.82
Apr-08	10.81	2.1	186.35	Apr-12	10.45	-1.0	180.06
May-08	10.69	-1.1	184.32	May-12	9.64	-7.7	166.20
Jun-08	11.00	2.9	189.67	Jun-12	9.37	-2.9	161.44
Jul-08	12.05	9.5	207.73	Jul-12	9.76	4.2	168.16
Aug-08	11.14	-7.6	192.00	Aug-12	10.17	4.3	175.33
Sep-08	10.27	-7.8	177.00	Sep-12	10.30	1.3	177.54
Oct-08	7.44	-27.5	128.24	Oct-12	10.13	-1.6	174.66
Nov-08	7.20	-3.2	124.13	Nov-12	9.84	-2.8	169.69
Dec-08	6.79	-5.7	117.11	Dec-12	9.73	-1.1	167.74
Jan-09	6.91	1.7	119.11	Jan-13	10.11	3.9	174.31
Feb-09	7.28	5.4	125.52	Feb-13	10.79	6.7	185.96
Mar-09	7.65	5.1	131.89	Mar-13	11.14	3.3	192.04
Apr-09	8.44	10.3	145.42	Apr-13	10.95	-1.7	188.71
May-09	9.56	13.3	164.72	May-13	10.40	-5.0	179.31
Jun-09	9.74	2.0	167.97	Jun-13	9.49	-8.8	163.61
Jul-09	9.28	21.3	159.94	Jul-13	9.65	1.7	166.41
Aug-09	9.29	0.1	160.16	Aug-13	9.80	1.5	168.95
Sep-09	9.14	-1.6	157.62	Sep-13	10.21	4.2	176.02
Oct-09	9.32	1.9	160.66	Oct-13	10.17	-0.4	175.28
Nov-09	9.22	-1.1	158.93	Nov-13	9.29	-8.6	160.18
Dec-09	9.02	-2.2	155.48	Dec-13	8.91	-4.1	153.63

*Weighted average and quoted in US$ per metric ton
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Shanghai, China (US$/metric ton)*			
	Ports		
	Santos	Paranaguá	Rio Grande
2007			
1st qtr	73.32	72.32	71.82
2nd qtr	111.20	110.20	109.70
3rd qtr	72.00	65.50	70.50
4th qtr	74.81	75.22	74.20
2007 Average	**82.83**	**80.81**	**81.56**
2008			
1st qtr	64.81	66.53	67.01
2nd qtr	80.27	80.79	81.27
3rd qtr	72.43	74.03	74.23
4th qtr	64.00	65.30	65.80
2008 Average	**70.38**	**71.66**	**72.08**
2009			
1st qtr	64.50	65.70	66.87
2nd qtr	66.00	67.30	67.80
3rd qtr	49.00	48.78	49.50
4th qtr	55.63	54.23	53.50
2009 Average	**58.78**	**59.00**	**59.42**
2010			
1st qtr	52.33	52.50	53.00
2nd qtr	55.08	58.58	58.75
3rd qtr	58.17	63.10	63.27
4th qtr	57.79	61.50	57.83
2010 Average	**55.84**	**58.92**	**58.21**
2011			
1st qtr	50.00	56.25	50.50
2nd qtr	50.05	57.62	50.60
3rd qtr	52.31	59.61	53.02
4th qtr	49.65	55.80	50.26
2011 Average	**50.50**	**57.32**	**51.10**
2012			
1st qtr	46.62	52.32	47.92
2nd qtr	51.35	57.63	52.78
3rd qtr	50.42	55.42	49.02
4th qtr	50.42	55.42	49.02
2012 Average	**49.70**	**55.20**	**49.69**
2013			
1st qtr	52.34	56.03	51.34
2nd qtr	34.50	36.75	35.25
3rd qtr	34.50	36.75	35.25
4th qtr	42.50	46.00	44.25
2013 Average	**40.96**	**43.88**	**41.52**

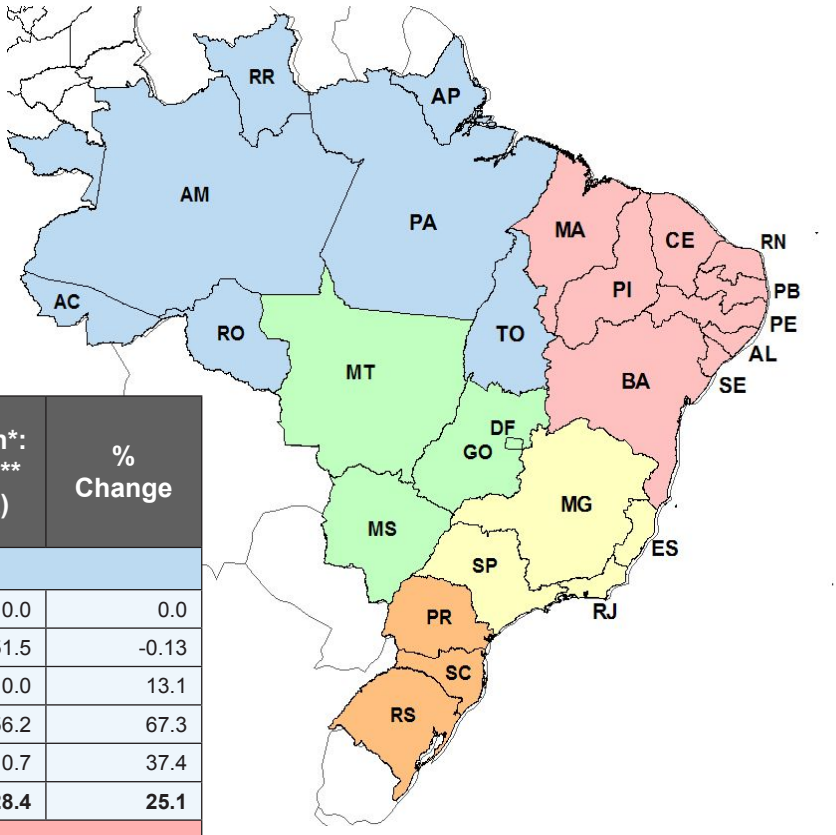
*Correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volume
Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US$/metric ton)*			
	Ports		
	Santos	Paranaguá	Rio Grande
2007			
1st qtr	60.40	59.40	58.90
2nd qtr	91.61	90.61	90.11
3rd qtr	59.35	53.12	57.85
4th qtr	80.67	81.08	80.06
2007 Average	**73.01**	**71.05**	**71.73**
2008			
1st qtr	57.38	58.90	59.36
2nd qtr	71.08	72.68	73.18
3rd qtr	48.80	50.20	50.70
4th qtr	32.18	33.48	33.98
2008 Average	**52.36**	**53.81**	**54.30**
2009			
1st qtr	34.10	35.50	35.80
2nd qtr	34.75	35.79	36.20
3rd qtr	30.00	31.55	32.00
4th qtr	31.08	30.53	31.17
2009 Average	**32.48**	**33.34**	**33.79**
2010			
1st qtr	32.25	31.83	33.50
2nd qtr	36.17	38.08	39.00
3rd qtr	34.42	36.92	37.08
4th qtr	31.67	33.50	34.54
2010 Average	**33.63**	**35.08**	**36.03**
2011			
1st qtr	34.96	33.86	35.43
2nd qtr	35.00	36.00	36.00
3rd qtr	36.65	37.29	37.81
4th qtr	32.00	32.63	35.22
2011 Average	**34.65**	**34.95**	**36.12**
2012			
1st qtr	32.00	31.58	32.08
2nd qtr	35.00	35.00	36.50
3rd qtr	32.00	34.30	32.00
4th qtr	28.00	34.30	32.00
2012 Average	**31.75**	**33.80**	**33.15**
2013			
1st qtr	30.00	30.00	30.00
2nd qtr	29.00	29.00	29.00
3rd qtr	29.00	29.00	29.00
4th qtr	30.00	30.00	30.00
2013 Average	**29.50**	**29.50**	**29.50**

*Correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volume
Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

Soybean Production

Soybean production by State



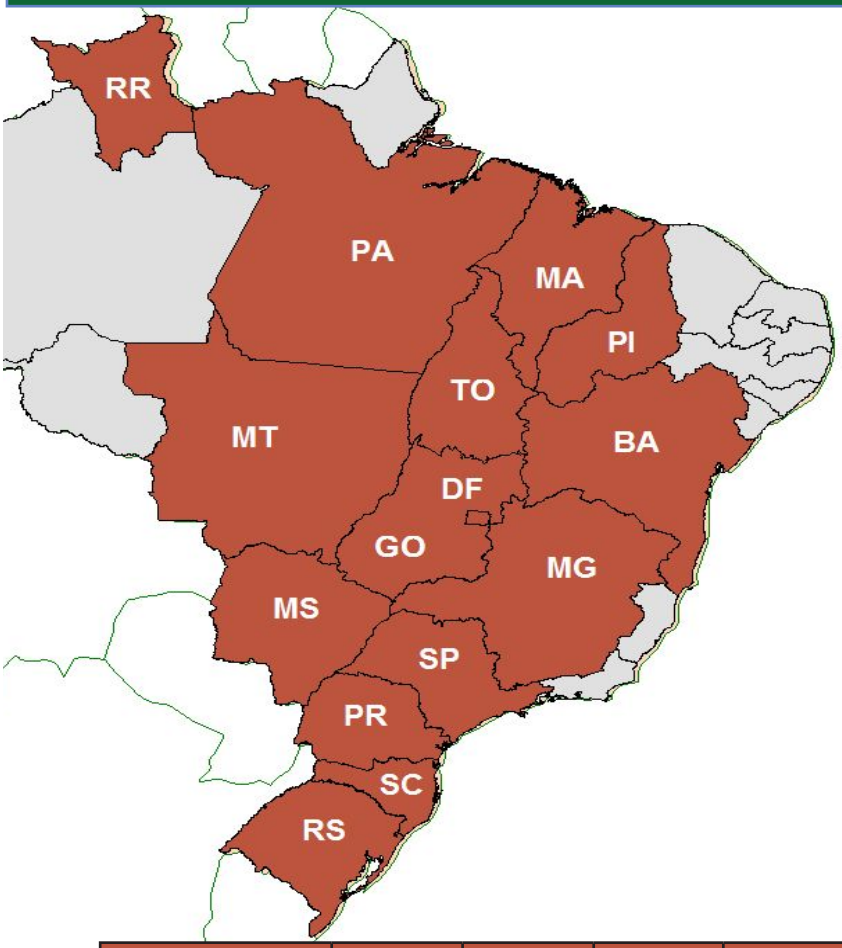
Region/State	Production*: 2012-2013 (1,000 mt)	Production*: 2013-2014** (1,000 mt)	% Change
North			
Amazonas (AM)	0.0	0.0	0.0
Pará (PA)	552.2	551.5	-0.13
Rondônia (RO)	539.3	610.0	13.1
Roraima (RR)	33.6	56.2	67.3
Tocantins (TO)	1,536.4	2,110.7	37.4
Total	**2,661.5**	**3,328.4**	**25.1**
Northeast			
Bahia (BA)	2,692.0	3,229.2	20.0
Maranhão (MA)	1,685.9	1,838.9	9.1
Piauí (PI)	916.9	1,489.2	62.4
Total	**5,294.8**	**6,557.3**	**23.8**
Midwest			
Distrito Federal (DF)	186.7	216.0	15.7
Goiás (GO)	8,562.9	8,636.6	0.9
Mato Grosso (MT)	23,532.80	27,001.60	14.7
Mato Grosso do Sul (MS)	5,809.0	6,148.0	5.8
Total	**38,091.4**	**42,002.2**	**10.3**
Southeast			
Minas Gerais (MG)	3,374.8	3,298.6	-2.3
São Paulo (SP)	2,051.1	1,746.2	-14.9
Total	**5,425.9**	**5,044.8**	**-7.0**
South			
Paraná (PR)	15,912.4	14,740.8	-7.4
Rio Grande do Sul (RS)	12,534.9	12,734.3	1.6
Santa Catarina (SC)	1,578.5	1,644.4	4.2
Total	**30,025.8**	**29,119.5**	**-3.0**
Total Production:	**81,499.4**	**86,052.2**	**5.6**

*Data based on calendar year, January-December
**Forecast, June 2014
Source: Companhia Nacional de Abastecimento (CONAB)

Brazil soybean supply and distribution (1,000 metric tons)									
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
2001/02	16,350	657	43,500	1,100	45,257	16,074	25,842	28,202	981
2002/03	18,448	981	52,000	1,124	54,105	19,987	27,796	30,220	3,898
2003/04	21,520	3,898	51,000	364	55,262	19,257	28,914	31,457	4,548
2004/05	22,917	4,548	53,000	352	57,900	22,799	29,728	32,413	2,688
2005/06	22,229	2,688	57,000	40	59,728	24,770	28,756	31,506	3,452
2006/07	20,700	3,452	59,000	108	62,560	23,805	31,511	34,261	4,494
2007/08	21,300	4,494	61,000	83	65,577	24,515	31,895	34,695	6,367
2008/09	21,700	6,367	57,800	124	64,291	28,041	30,779	33,579	2,671
2009/10	23,500	2,671	69,000	150	71,821	29,188	35,700	38,550	4,083
2010/11	24,200	4,083	75,300	40	79,423	33,789	37,264	40,164	5,470
2011/12	25,000	5,470	66,500	298	72,268	31,905	36,230	39,130	1,233
2012/13	27,700	1,233	82,000	240	83,473	42,826	36,388	39,338	1,309
2013/14	29,900	1,309	87,500	550	89,359	45,500	37,000	39,975	3,884
2014/15**	30,500	3,884	91,000	500	95,384	46,500	37,200	40,200	8,684

*Data based on Brazil's local February/January Marketing Year (MY)
Where February 2012 - January 2013 is the 2011/12 MY.
**Forecast: June 11, 2014
Source: USDA/Foreign Agricultural Service/Circular Series

Exports

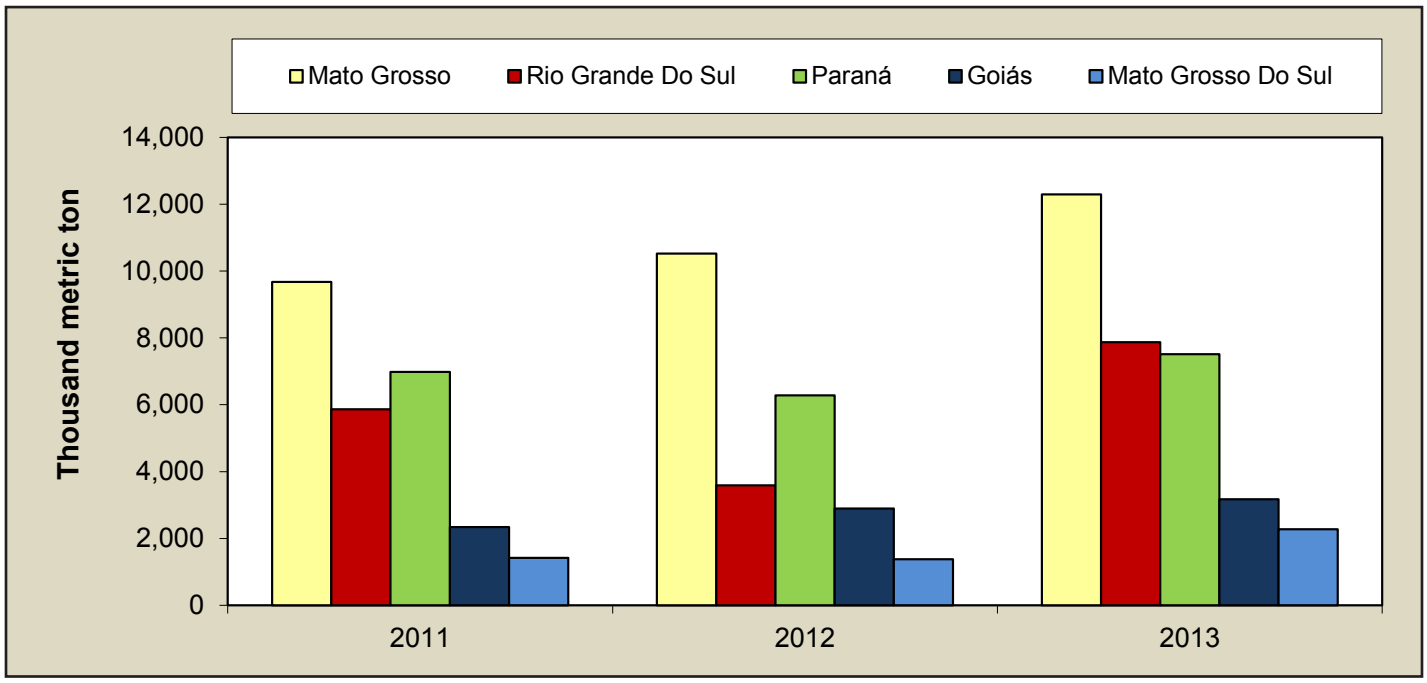


Top 15 Brazilian soybean exporting states

State	2007	2008	2009	2010	2011	2012	2013	Rank
	----------metric ton----------							
Mato Grosso	6,822,133	8,661,077	10,647,895	8,654,767	9,673,542	10,523,386	12,295,459	1
Rio Grande Do Sul	5,500,862	3,515,963	4,853,788	4,683,882	5,866,515	3,585,651	7,872,785	2
Paraná	3,728,751	4,812,766	4,630,137	6,280,750	6,982,940	6,281,370	7,511,617	3
Goiás	2,210,734	2,311,906	2,308,436	2,203,874	2,337,625	2,897,632	3,173,837	4
Mato Grosso Do Sul	1,065,858	1,006,346	781,845	1,367,517	1,418,677	1,378,377	2,279,962	5
São Paulo	630,890	761,654	640,622	773,097	984,549	1,393,852	2,208,341	6
Minas Gerais	379,801	371,266	780,860	678,217	623,111	835,937	1,609,657	7
Bahia	708,878	951,041	1,541,566	1,632,045	1,935,990	1,732,589	1,577,867	8
Maranhão	841,943	920,902	919,650	1,040,758	1,241,827	1,347,239	1,319,376	9
Santa Catarina	1,049,896	422,420	254,171	375,407	433,285	577,839	913,282	10
Tocantins	434,542	551,885	557,841	677,124	712,899	796,758	875,548	12
Rondônia	229,108	312,362	314,402	357,057	286,610	481,253	548,425	11
Pará	67,485	129,639	124,506	167,840	239,704	323,873	450,616	14
Piauí	9,132	131,343	150,298	119,043	185,846	253,777	165,955	13
Distrito Federal	30,113	38,841	47,382	33,283	73,186	31,983	91,807	15
Others	30,324	12,930	8,292	20,563	5,073	19,988	5,882	
Total	**23,740,450**	**24,912,341**	**28,561,691**	**29,065,224**	**33,001,379**	**32,461,504**	**42,900,416**	

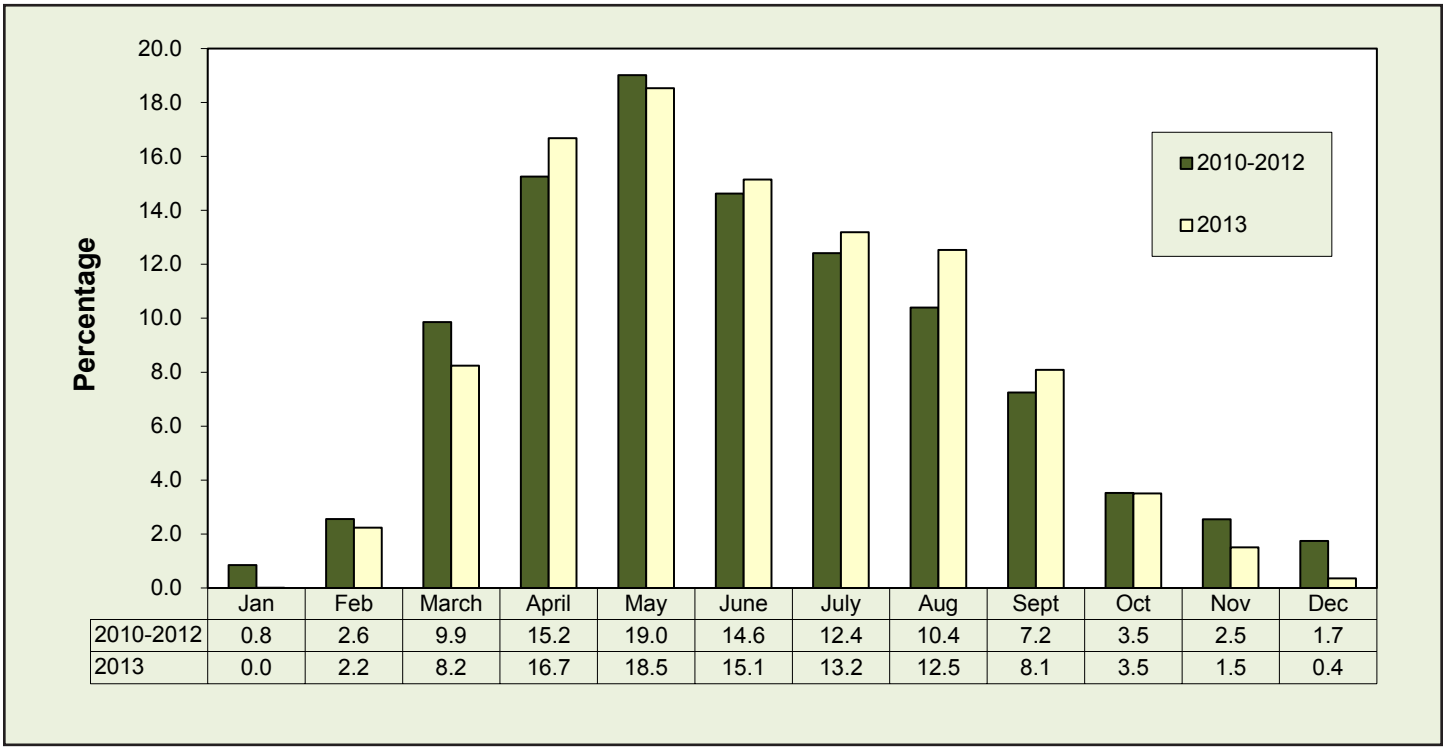
Sources: Bureau of Foreign Trade (SECEX), MDIC

Top 5 Brazil soybean exporting states



Sources: Bureau of Foreign Trade (SECEX), MDIC

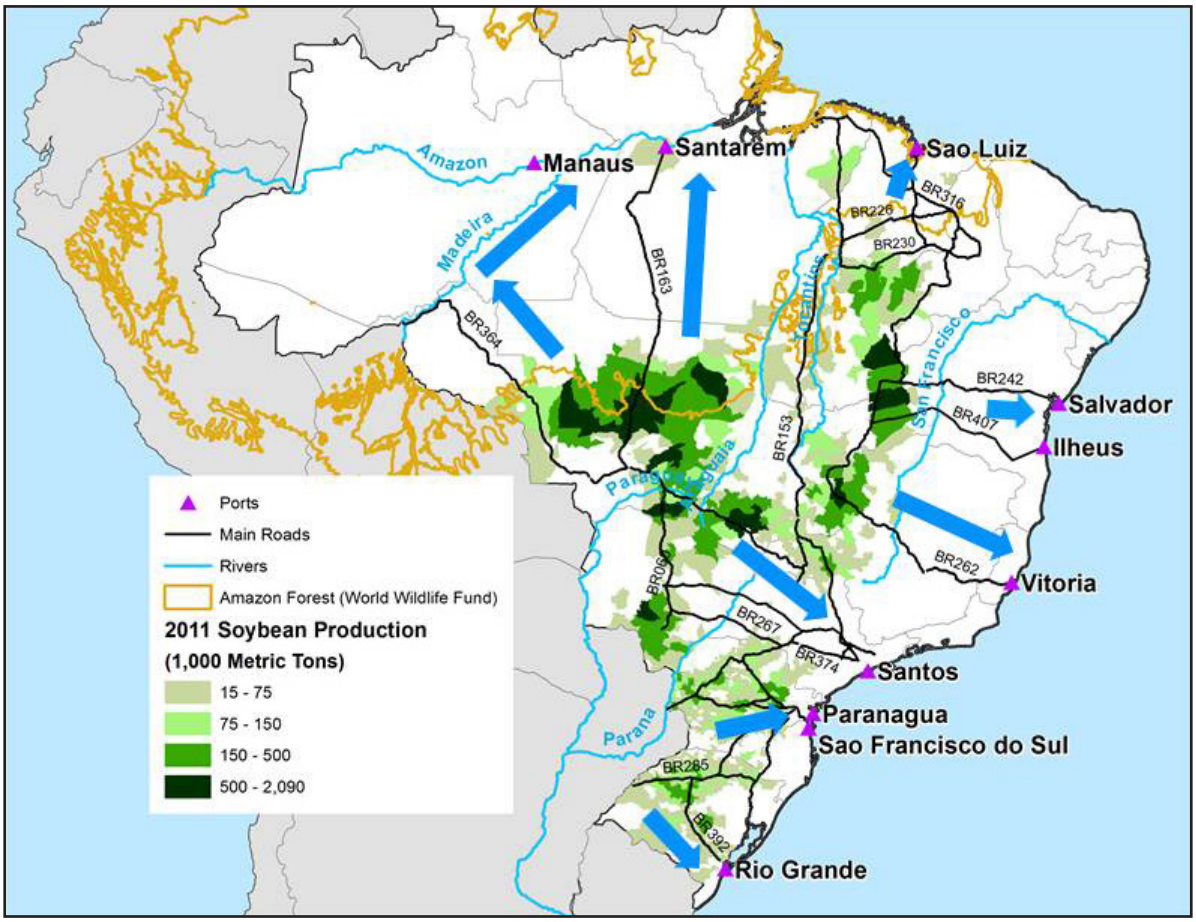
Brazil soybean average monthly exports



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2010-2012	0.8	2.6	9.9	15.2	19.0	14.6	12.4	10.4	7.2	3.5	2.5	1.7
2013	0.0	2.2	8.2	16.7	18.5	15.1	13.2	12.5	8.1	3.5	1.5	0.4

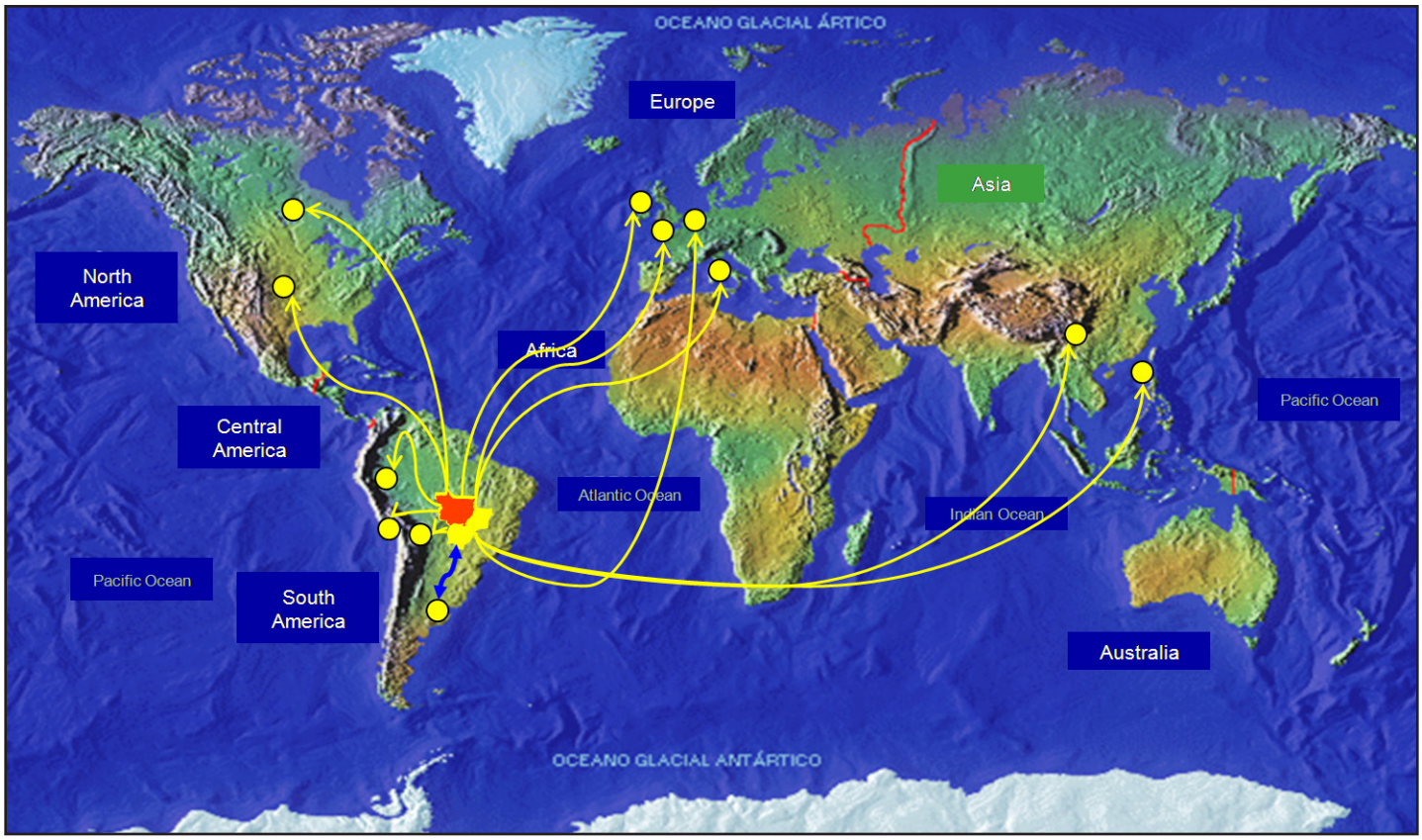
Sources: Bureau of Foreign Trade (SECEX), MDIC

Main export routes for soybeans



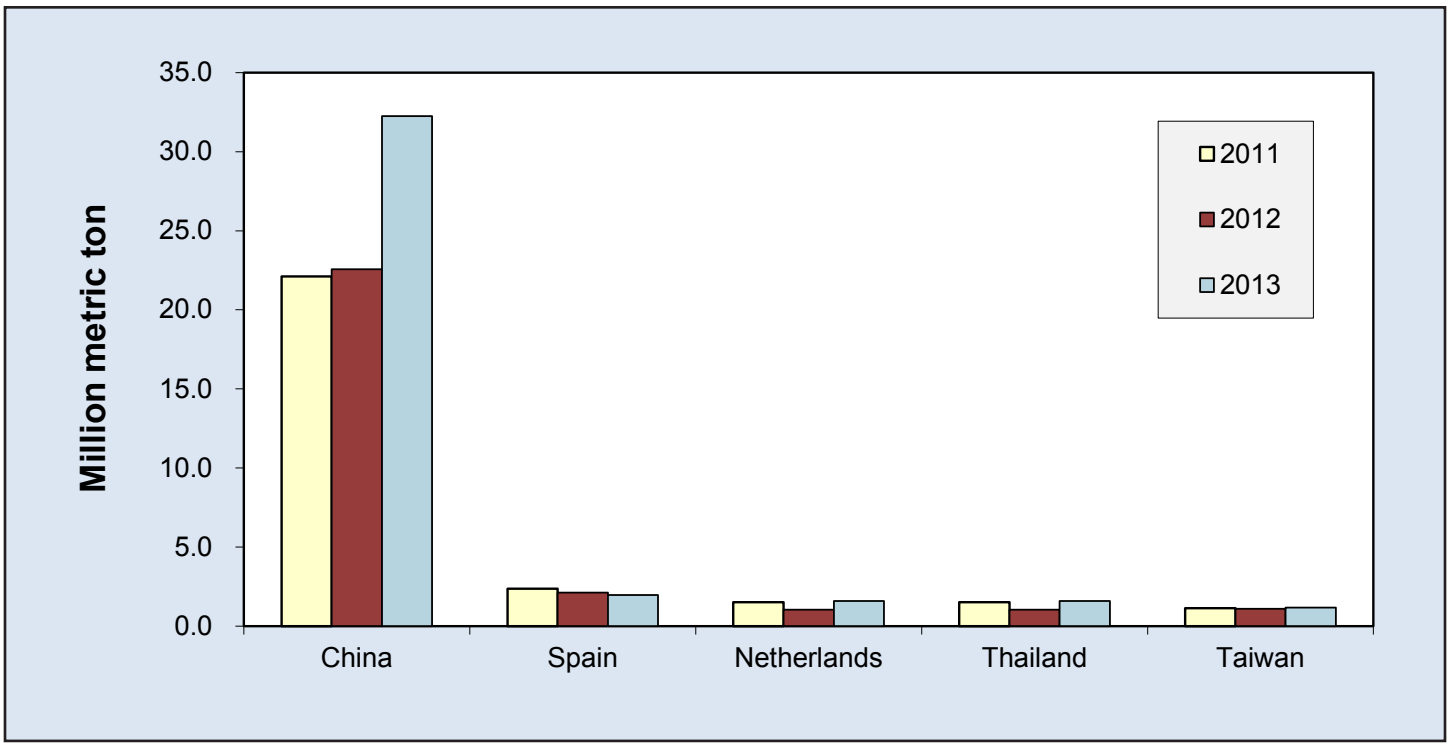
*Companhia Nacional de Abastecimento (CONAB)
**World Wildlife Fund (WWF)
Source: USDA/Agricultural Marketing Service & Foreign Agricultural Service

World export routes for Brazilian soybeans



Source: State of Mato Grosso, Department of Tourism and Commerce, Caceres

Brazil soybeans: top 5 export destinations

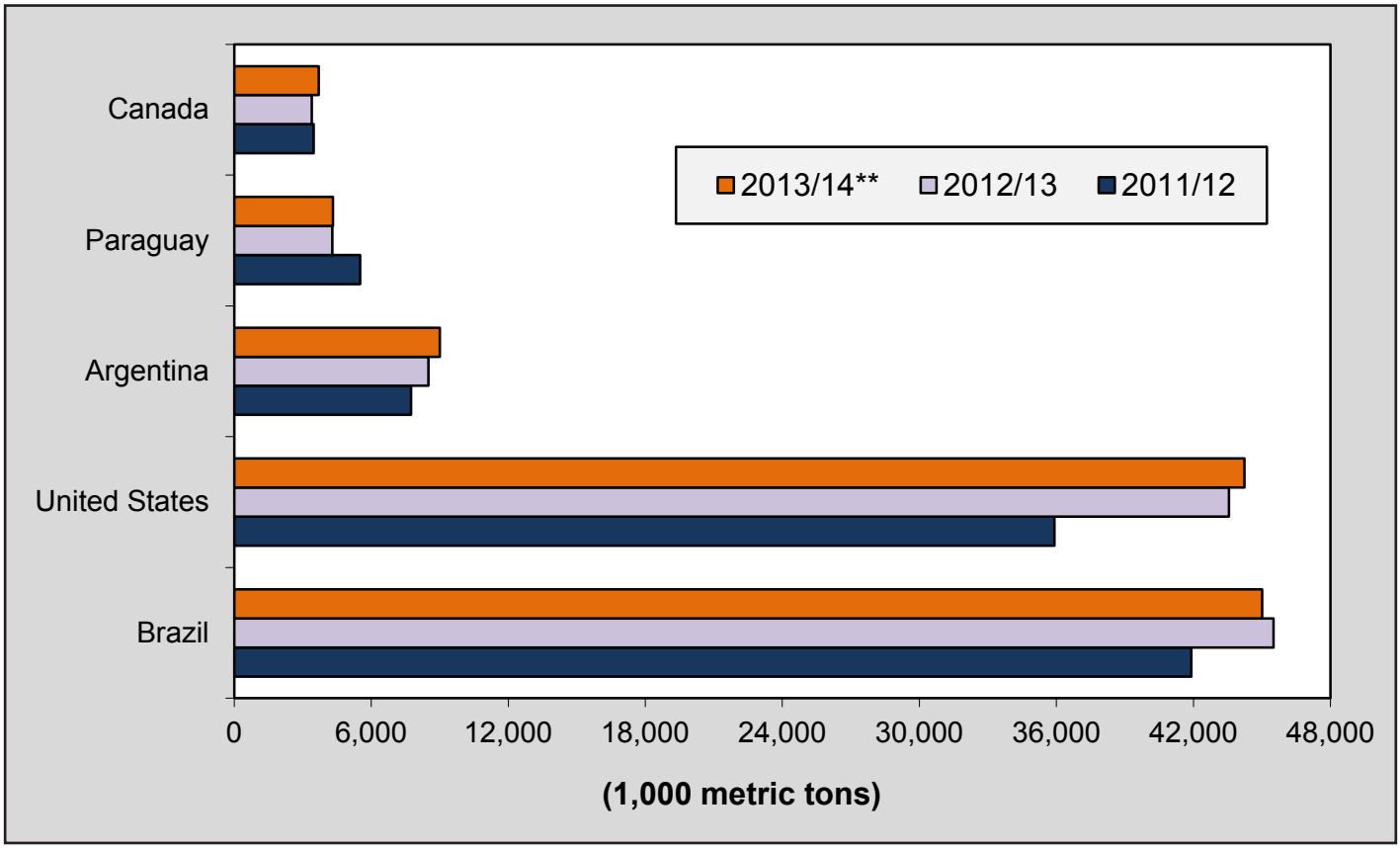


Source: Bureau of Foreign Trade (SECEX), MDIC

Exports

In 2013, for the first time Brazil surpassed the United States as the top soybean exporter and it is forecast to keep its position in 2014.

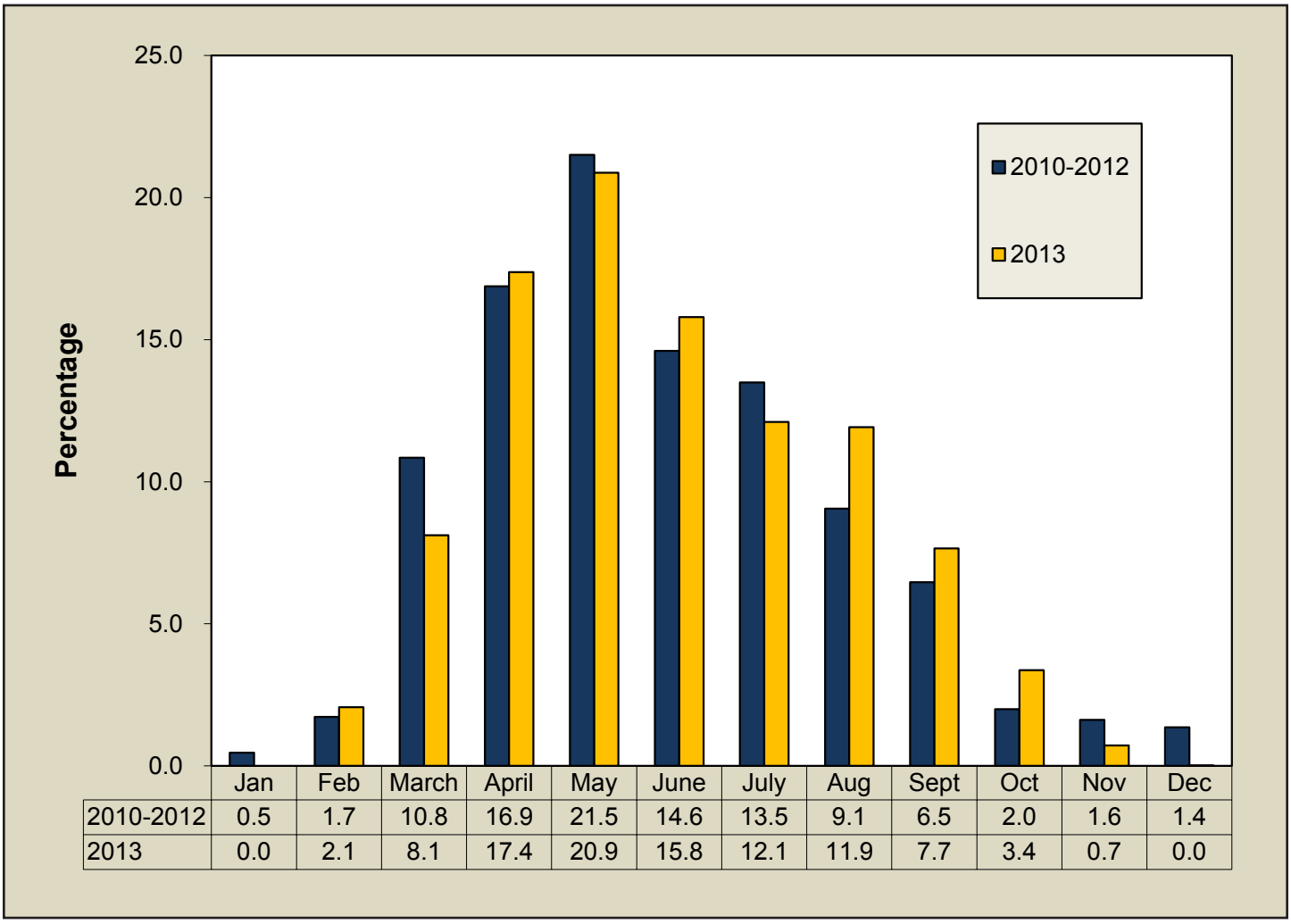
Top 5 world soybean exporting countries



*Forecast: June 11, 2014
Source: USDA/FAS

China is Brazil's largest soybean buyer, accounting for 75 percent of total soybean exports in 2013. Brazil soybean exports to China usually peak in May and almost finish by the end of October. Over 80 percent of Brazil soybean exports to China originated from Mato Grosso, Rio Grande Do Sul, Paraná, Goiás, Mato Grosso do Sul, Sao Paulo, and Minas Gerais in 2013.

Brazil soybean average monthly exports to China



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2010-2012	0.5	1.7	10.8	16.9	21.5	14.6	13.5	9.1	6.5	2.0	1.6	1.4
2013	0.0	2.1	8.1	17.4	20.9	15.8	12.1	11.9	7.7	3.4	0.7	0.0

Source: Bureau of Foreign Trade (SECEX), MDIC

Exports to China

Top 15 Brazilian soybean exporting states to China			
State	**2012**	**2013**	**% share**
	--- metric ton ---		
Mato Grosso	6,907,993	8,943,003	27.7
Rio Grande Do Sul	3,132,744	6,730,952	20.9
Paraná	5,155,580	6,252,474	19.4
Goiás	2,436,806	2,702,578	8.4
Mato Grosso Do Sul	1,115,718	1,932,998	6.0
Sao Paulo	1,174,858	1,723,866	5.3
Minas Gerais	639,229	1,150,535	3.6
Bahia	745,923	949,716	2.9
Santa Catarina	524,827	825,096	2.6
Maranhao	375,798	423,301	1.3
Tocantins	227,866	371,185	1.2
Distrito Federal	21,140	87,187	0.3
Piauí	61,310	69,133	0.2
Pará	27,624	64,191	0.2
Rondônia	0	20,488	0.1
Roraima	0	525	0.0
Espirito Santo	8,541	0	0.0
Others	3,000	0	0.0
Brazil exports to China	**22,558,957**	**32,247,228**	
Brazil total exports	**32,461,504**	**42,900,416**	

Source: Bureau of Foreign Trade (SECEX), MDIC

China's share of Brazilian soybean exports increased from 43 percent in 2006 to 75 percent in 2013. Mato Grosso (MT), Brazil's largest soybean-producer-exporter State, sold nearly 73 percent of its 2013 soybeans to China.

Top 15 Mato Grosso (MT) soybean export destinations									
State	2007	2008	2009	2010	2011	2012	2013	% share	Rank
	-- metric ton --								
China	2,399,838	3,145,658	5,495,322	5,421,825	6,241,745	6,907,993	8,943,003	72.7	1
Spain	754,563	1,290,682	934,334	613,363	748,051	882,336	535,849	4.4	2
Netherlands	1,311,940	1,320,667	958,421	578,894	517,331	503,341	501,883	4.1	3
Vietnam	0	0	0	0	120,563	157,229	300,975	2.4	4
Norway	120,479	298,561	283,606	290,044	330,812	302,502	290,244	2.4	5
Thailand	133,892	482,039	293,137	326,364	522,515	389,921	220,988	1.8	6
United Kingdom	334,105	363,256	472,638	324,352	448,817	282,671	217,151	1.8	7
Japan	42,802	83,807	157,498	123,432	70,587	157,229	185,616	1.5	8
Mexico	0	0	36,818	0	0	0	163,771	1.3	9
Taiwan	0	24,253	70,524	11,179	51,800	292,199	159,580	1.3	10
United States	0	828	800	100	0	0	85,490	0.7	12
Portugal	137,813	207,275	271,458	82,485	20,360	202,950	80,546	0.7	11
Turkey	15,671	37,024	0	2,320	74,218	1,344	80,546	0.7	14
Saudi Arabia	0	4,000	101,069	23,730	140,094	84,460	71,520	0.6	13
South Korea	122,434	98,925	82,845	23,413	31,456	61,488	56,180	0.5	15
Others	1,448,596	1,304,102	1,489,425	833,266	355,193	297,723	402,117	3.3	
Mato Grosso total	**6,822,133**	**8,661,077**	**10,647,895**	**8,654,767**	**9,673,542**	**10,523,386**	**12,295,459**	**100.0**	
MT % share of Brazil exports to China	23.8	26.6	34.5	28.4	28.2	30.6	27.7		
Brazil exports to China	10,071,893	11,823,583	15,939,970	19,064,473	22,104,689	22,558,957	32,247,228		
Brazil total exports	23,740,450	24,912,341	28,561,691	29,065,224	33,001,379	32,461,504	42,900,416		
China % share of Brazil total exports	42.4	47.5	55.8	65.6	67.0	69.5	75.2		

Source: Bureau of Foreign Trade (SECEX), MDIC

Exports to China

China prefers to buy soybeans from the southern ports of Santos, Paranaguá, and Rio Grande, and Sáo Francisco do Sul via Cape of Good Hope in South Africa to Shanghai because it is cheaper than from the remote ports of the Amazon River and the Northeast. For example, by buying soybeans from Santos, China saves 7-8 days in shipping costs compared to Manaus; and 2-3 days compared to Itaquí/São Luiz. In 2013, these 3 southern ports accounted for about 74 percent of Brazil's soybean exports to China and nearly 56 percent of Brazil's total exports. However, in 2013, a record soybean crop, congestion at the top southern ports, and the new "Driver's Law" that reduced the number of hours truck drivers can work in a 24-hour period, and lower ocean rates encouraged shippers to increase exports from the ports of Vitoria (Southeast), Salvador and São Luiz (Northeast), and Satarém and Manaus (North).

Total Brazil soybean exports by port to China, 2011-13

Ports	2011	2012	2013	% share of exports to China			% share of Brazil total exports		
	-- metric ton --			2011	2012	2013	2011	2012	2013
Santos	7,427,499	8,422,746	10,764,702	33.6	37.3	33.4	22.5	25.9	25.1
Rio Grande	4,552,649	3,093,246	6,979,118	20.6	13.7	21.6	13.8	9.5	16.3
Paranaguá	4,700,085	5,189,967	6,131,935	21.3	23.0	19.0	14.2	16.0	14.3
Subtotal	**16,680,233**	**16,705,959**	**23,875,755**	**75.5**	**74.1**	**74.0**	**50.5**	**51.5**	**55.7**
Others	5,424,456	5,764,965	8,371,473	24.5	25.6	26.0	16.4	17.8	19.5
Total exports to China	**22,104,689**	**22,558,957**	**32,247,228**	**100.0**	**100.0**	**100.0**	**67.0**	**69.5**	**75.2**
Brazil total exports	**33,001,321**	**32,461,504**	**42,900,416**						

Source: Bureau of Foreign Trade (SECEX), MDIC

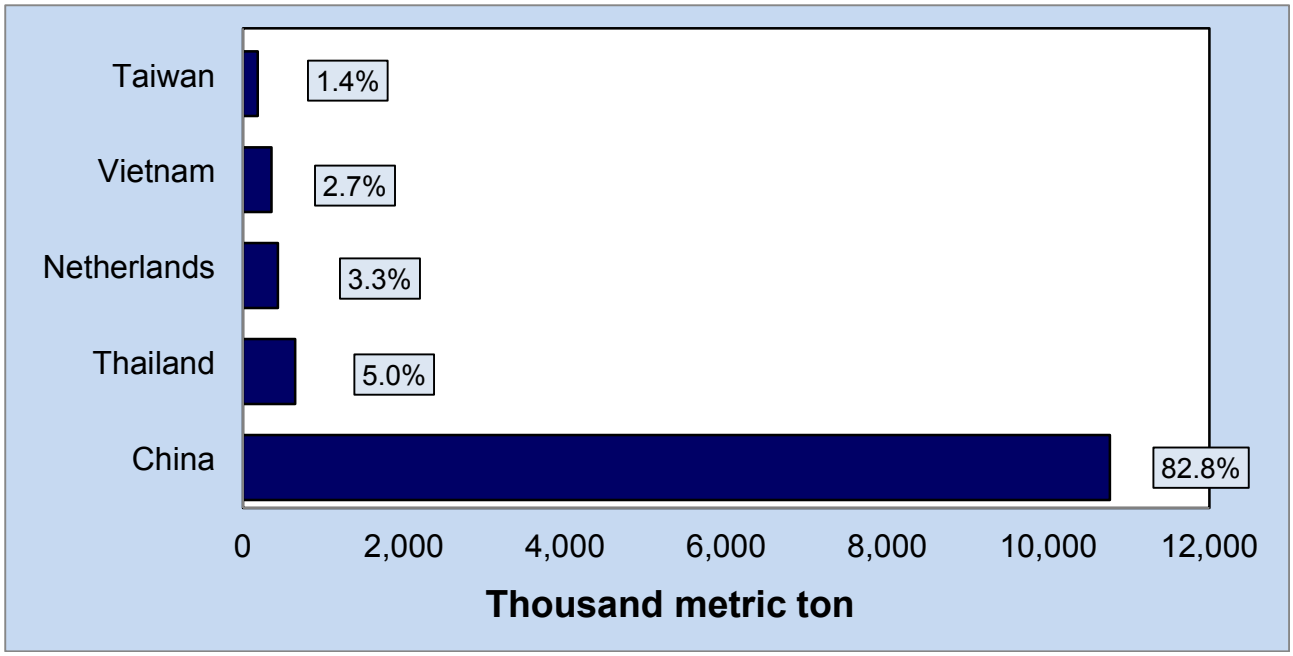
Distance from selected Brazilian ports to Shanghai, China, and Hamburg, Germany				
Brazilian port	**Route through**	**Destination**	**Nautical miles**	**Days at sea**
Manaus	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	12,880 11,592 5,283	41.3 37.2 16.9
Santos	Good Hope	Shanghai, China Hamburg, Germany	11,056 5,683	35.4 18.2
Itaquí	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	11,709 11.087 4,361	37.5 35.5 14
Vitoria	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	10,857 12,587 5,227	34.8 40.3 16.8
Salvador	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	10,997 12,170 4,811	35.2 39 15.4
Paranaguá	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	11,111 13,165 5,805	35.6 42.2 18.6
Rio Grande	Good Hope Panama Canal Cape Horn	Shanghai, China Shanghai, China Shanghai, China Hamburg, Germany	11,129 13,564 11,397 6,204	35.7 43.5 36.5 19.9

*Vessel speed: 13 knots
Source: http://sea-distances.com

Exports to China

In 2013, China was the major destination of Brazilian soybeans through the port of Santos, Brazil's largest soybean exporting port.

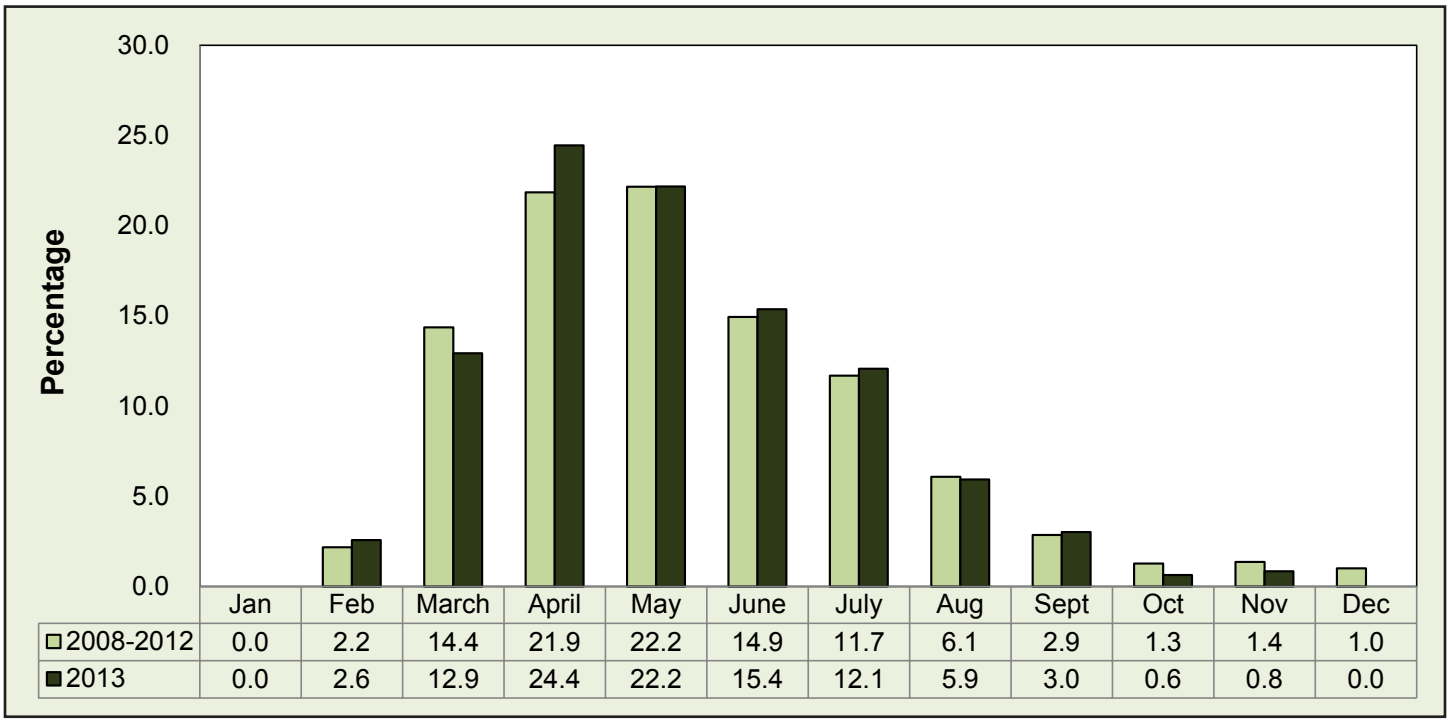
Port of Santos soybean exports by country, 2013



Source: Bureau of Foreign Trade (SECEX), MDIC

The peak of Brazilian soybean shipments to China from Santos and Paranaguá usually occurs during April—May, except for Rio Grande Sul that occurs from May—June. This year, Rio Grande do Sul peak of soybean exports to China occurred in May and August.

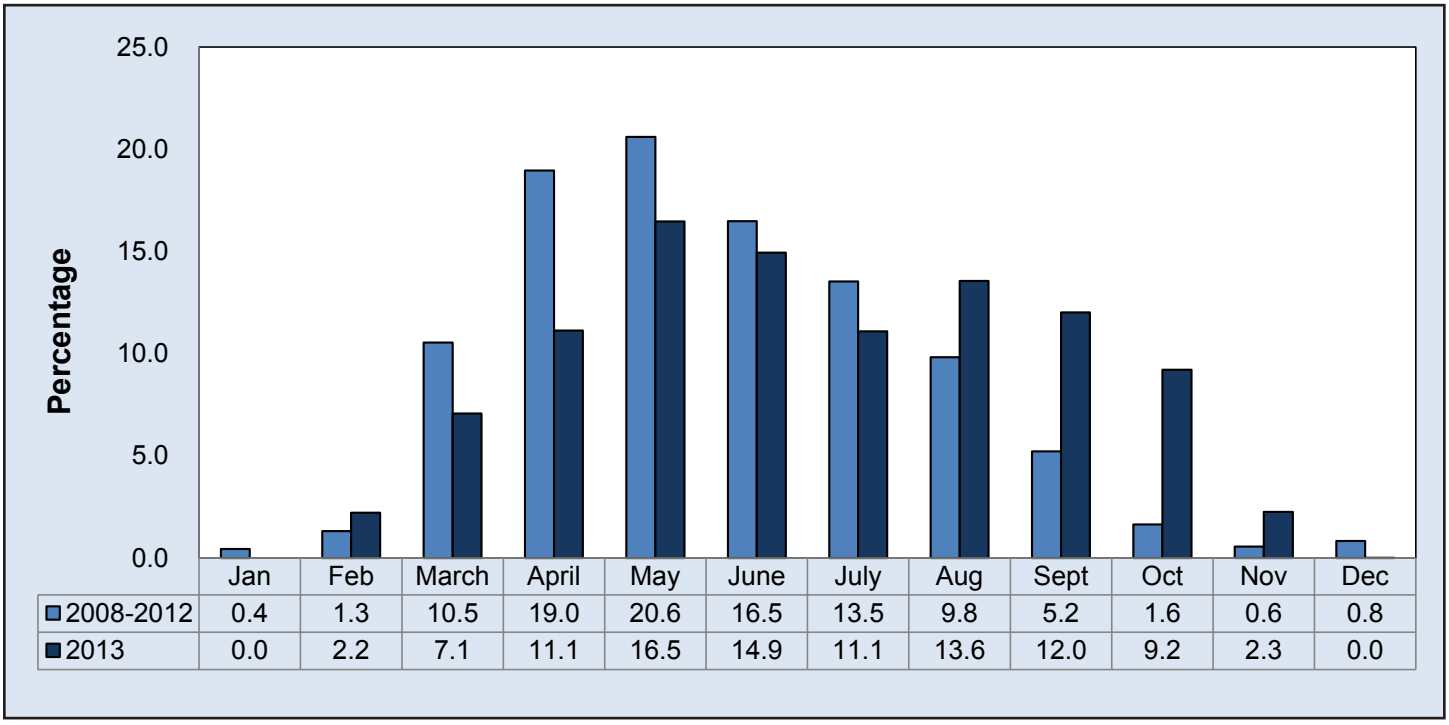
Port of Santos soybean average monthly exports to China



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2008-2012	0.0	2.2	14.4	21.9	22.2	14.9	11.7	6.1	2.9	1.3	1.4	1.0
2013	0.0	2.6	12.9	24.4	22.2	15.4	12.1	5.9	3.0	0.6	0.8	0.0

Source: Bureau of Foreign Trade (SECEX), MDIC

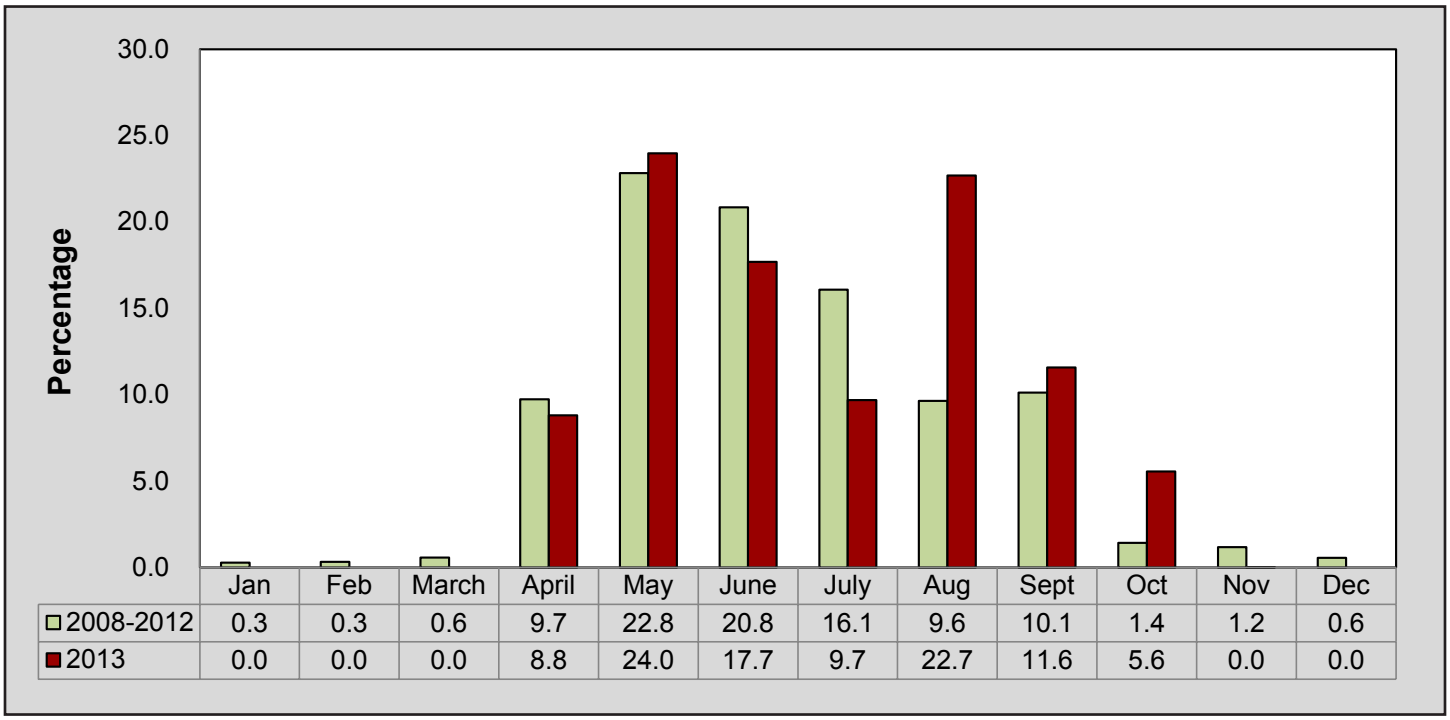
Port of Paranaguá soybean average monthly exports to China



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2008-2012	0.4	1.3	10.5	19.0	20.6	16.5	13.5	9.8	5.2	1.6	0.6	0.8
2013	0.0	2.2	7.1	11.1	16.5	14.9	11.1	13.6	12.0	9.2	2.3	0.0

Source: Bureau of Foreign Trade (SECEX), MDIC

Port of Rio Grande soybean average monthly exports to China



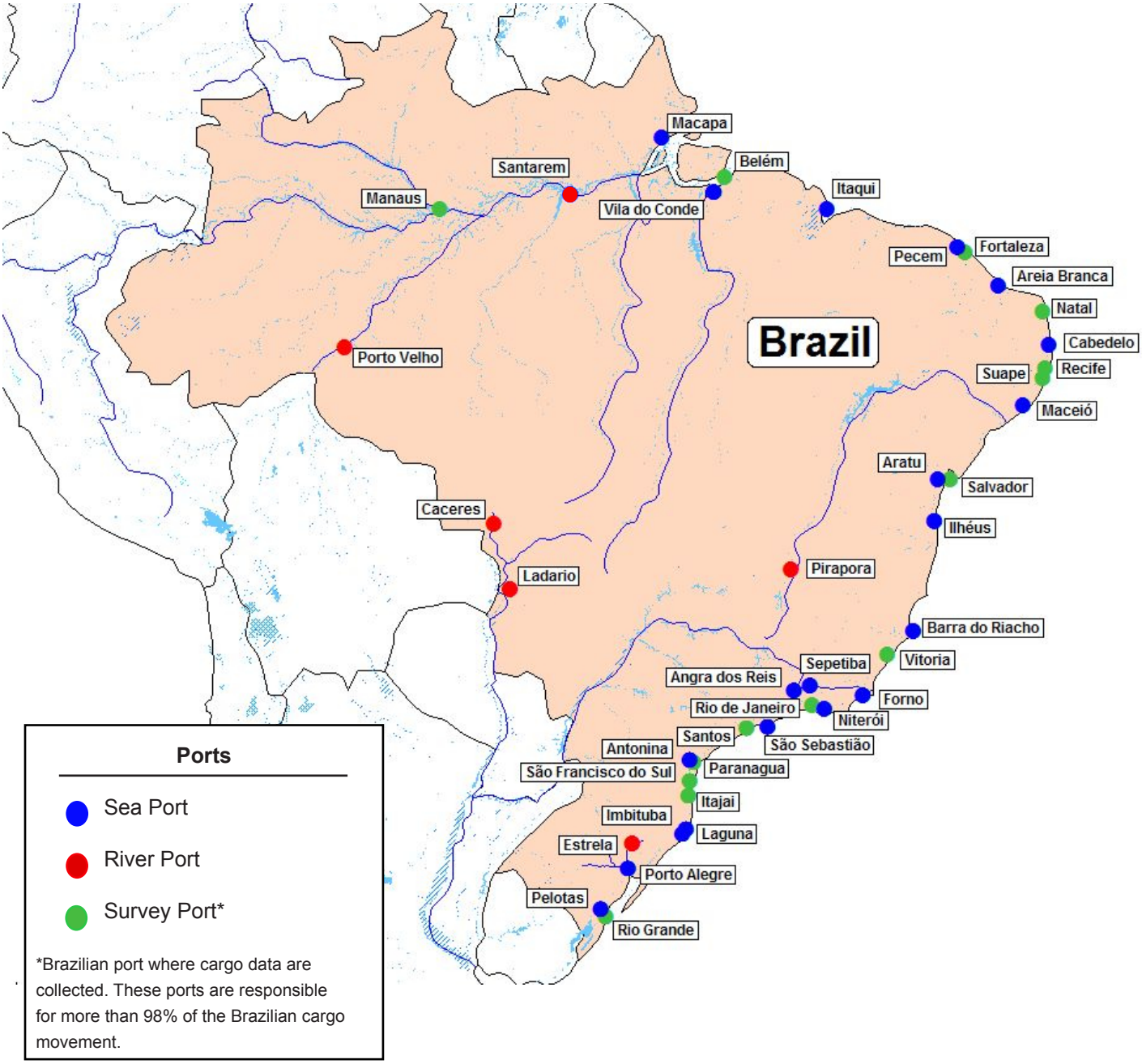
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2008-2012	0.3	0.3	0.6	9.7	22.8	20.8	16.1	9.6	10.1	1.4	1.2	0.6
2013	0.0	0.0	0.0	8.8	24.0	17.7	9.7	22.7	11.6	5.6	0.0	0.0

Source: Bureau of Foreign Trade (SECEX), MDIC

Transportation Modes

Brazilian ports

There are 40 water and sea ports and 42 private terminals. The Port of Santos Channel is 426.4 ft wide and 42.64 ft deep. The Port of Paranaguá's entrance strip is 656 ft wide and 39.36 ft deep. It has 3 access channels. Galheta, the major access channel, extends 17.7 miles and has a width ranging from 492 to 656 ft, and a depth of 39.36 ft. The Port of Vitória's entry strip is 820 ft wide and 62.32 ft deep. Its access channel extends 4.34 miles, and is 393.6 ft wide and 36.08 ft deep. The port of Santarém access channel is 5,905 ft wide and 49.2 ft deep. The port of Manaus access channel is 1,640 ft wide and 114.8 ft deep. Both ports have the capacity to handle Panamax vessels that require a draft of up to 39.5 ft.



Sources: Companhia Nacional de Abastecimento (CONAB)
Ministério dos Transportes, Brazil

Major rivers of the Amazonian Basin

Source: National Agency for Waterway Transportation (ANTAQ)

Brazil has 39,060 miles of river-lake surface water and 27,280 miles of navigable rivers but only 8,060 miles are commercially navigated.

Brazil waterway system	
Extension	**Miles**
River-lake surface water	39,060
National river network	27,280
Naturally navigable waterways	17,980 (100%)
Commercial navigations	8,060 (45%)
Vessel owned	1,148

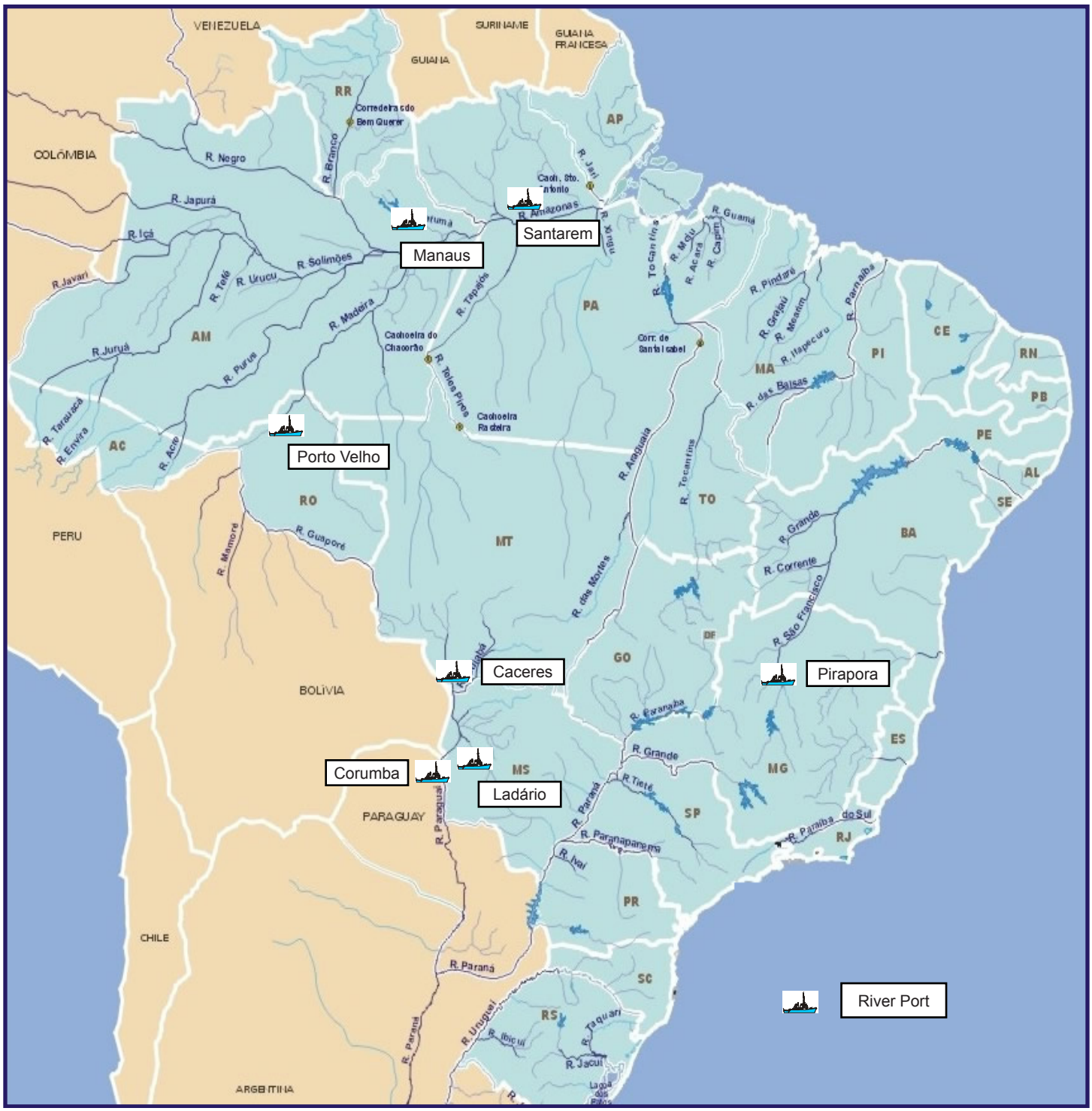
Source: Confederação Nacional do Transporte (CNT)
National Agency for Waterway Transporation (ANTAQ)

Brazilian river system

Source: National Agency for Waterway Transportation (ANTAQ)

Brazilian river system

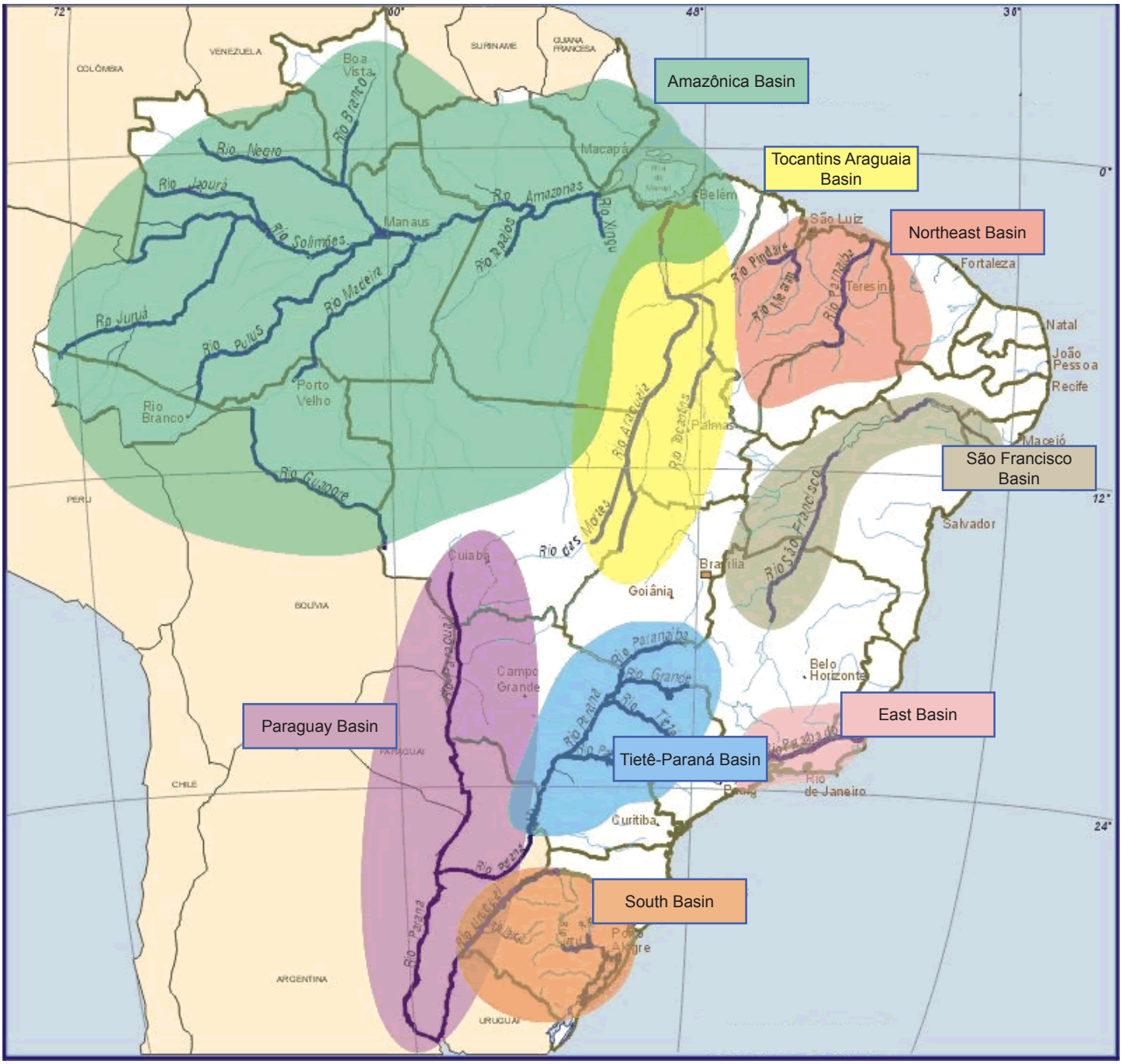
The Port of Manaus access channel is 1,640 ft wide and 114.8 ft deep. Porto Velho's access channel depth varies from 8.2 to 57.4 ft. The Port of Santarém's access channel is 5,904 ft wide and 49.2 ft deep.



Sources: Ministério dos Transportes, Brazil
Companhia Nacional de Abastecimento (CONAB)

Brazilian river basins

Brazil's river system comprises eight basins: Amazônica, Nordeste, Tocantins Araguaia, São Franciso, Bacia do Leste, Bacia do Prata, Paraguay, and Sul. The Amazônica and Paraguay Basin account for 72 percent of the total area of the Brazilian basins. The Paraguay Basin serves Argentina, Brazil, Bolivia, Paraguay, and Uruguay. Its navigable extension is comparable with the Mississippi River in the United States and the Rhine River in Europe.



Source: Ministério dos Transportes, Brazil

Brazilian multimodal transportation system

Source: Agência Nacional de Transportes Aquavárious

Major Brazilian highways

Source: Confederação Nacional do Transporte

The Brazilian highway system extends 982,522 miles (1,584,713 kilometers) with only 14 percent paved. The United States public roads system consists of 4,092,730 miles (6,586,610 kilometers) with 65 percent paved.

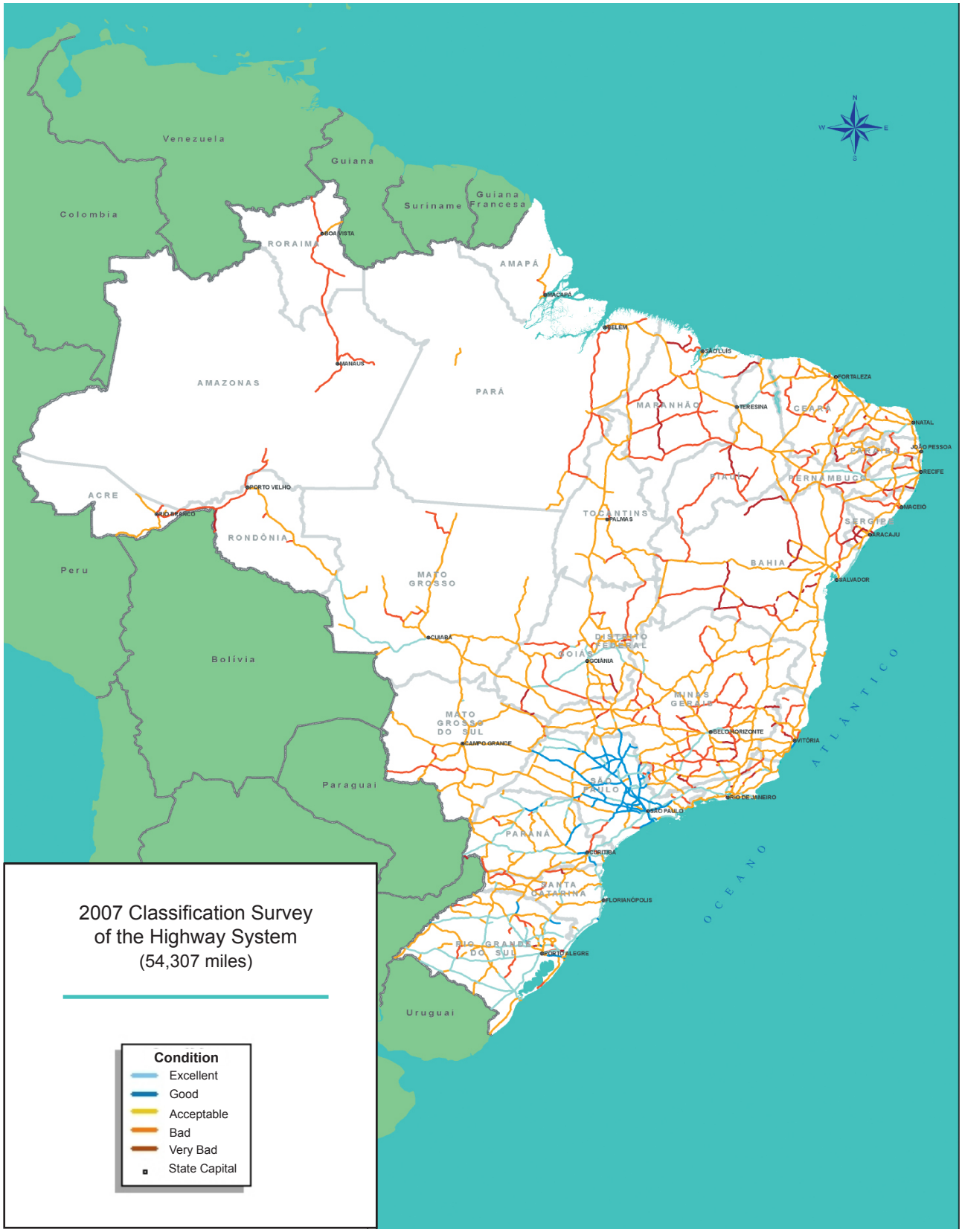
Brazil highway system extension in miles, 2013			
	Paved roads	Unpaved roads	Total
Federal	40,498	7,850	48,348
Federal/State	11,180	2,962	14,142
State	68,722	69,027	137,749
County	16,633	765,649	782,282
Total	137,033	845,489	982,522
% share	14	86	100

Source: Confederação Nacional do Transporte (CNT)

U.S. highway system extension and condition, 2012			
Extension[1] (miles)		Condition[2]	
		Paved	Unpaved
Rural	2,979,711	54	46
Urban	1,113,018	94	6
Total	4,092,730	65	35

[1]Table HM-10 Public road length -2012. Includes the States and the District of Columbia. October 1, 2013
[2]Includes the 50 States and the District of Columbia. Some differences from other tables may be noted because these are estimated from sample and summary data; some States may have missing/incomplete data. Table HM-12 Public road length -2012 by type of surface and ownership/functional system. October 1, 2013
Source: Highway Statistics 2012. U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: Annual Issues)
http://www.fhwa.dot.gov/policyinformation/statistics/2012/

Brazilian highways condition classification



Source: Confederação Nacional do Transporte

Brazilian public highways

Source: Confederação Nacional do Transporte

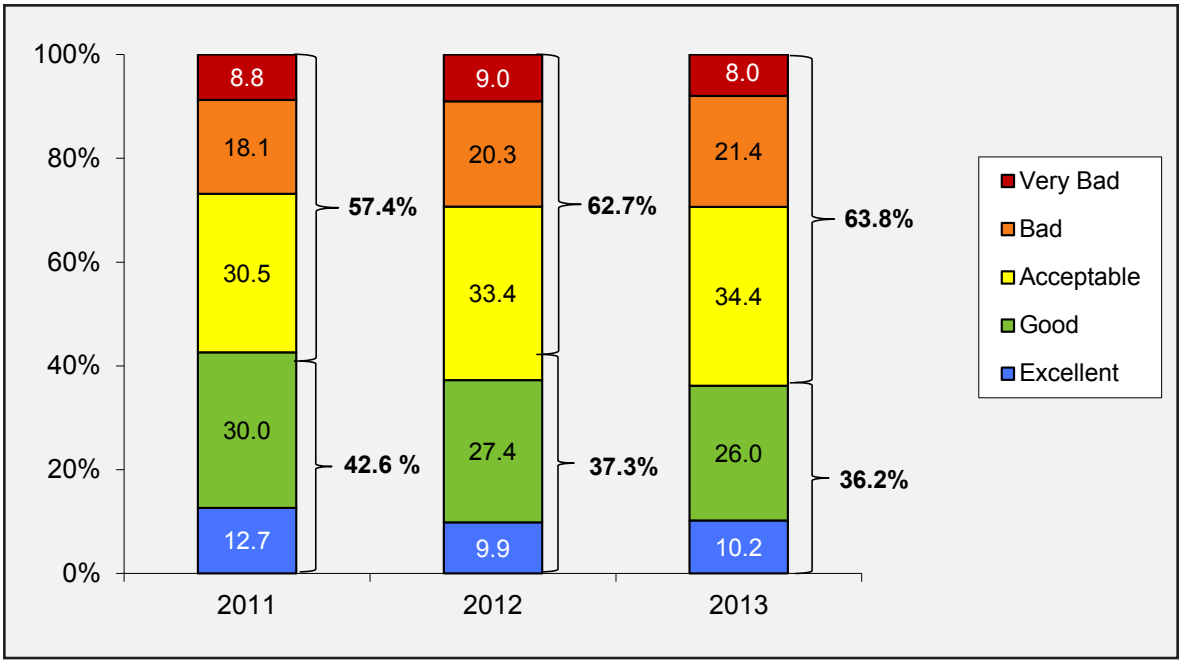
Brazilian private highway conditions

Source: Confederação Nacional do Transporte

Brazilian highways

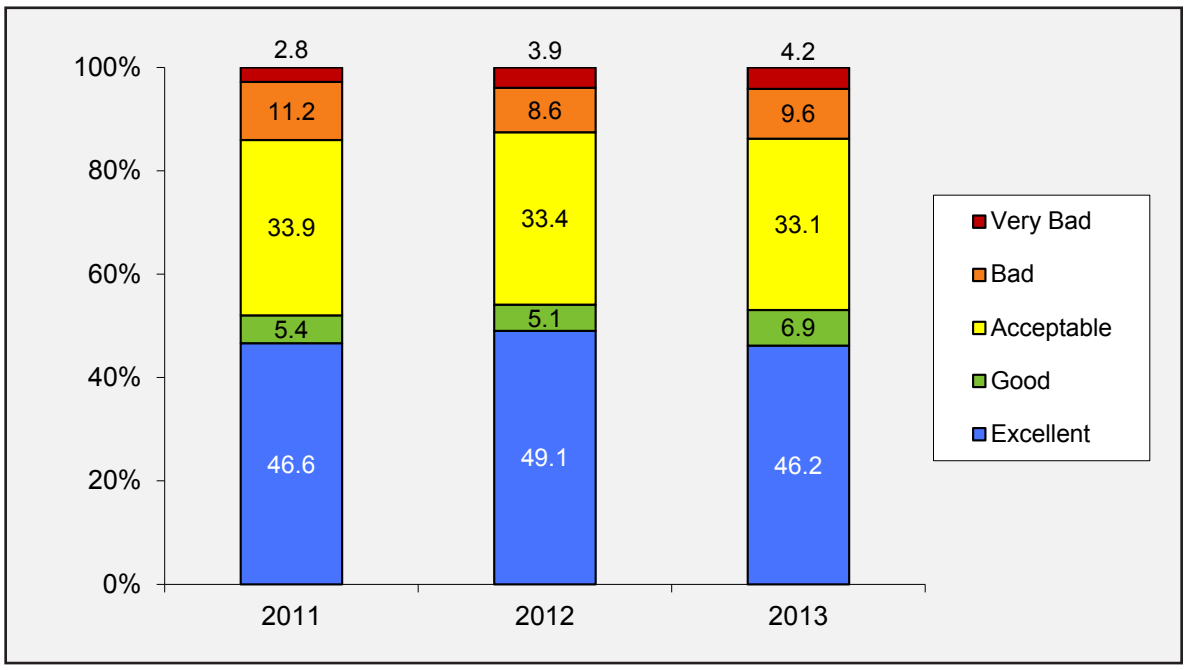
The 2013 Confederação Nacional do Transporte (CNT) survey of the overall highway condition in Brazil shows that 36.2 percent of the roads ranged between good to excellent in 2013 compared to 42.6 percent in 2011. Still, 63.8 percent ranged from acceptable to inadequate. The survey also shows that more than half of the paved roads were in good to excellent and about 47 percent ranged from acceptable to very bad condition; 67 percent of traffic road signs had problems; and 88 percent of the paved roads evaluated are two lane. The survey sample of paved roads increased 1 percent from 59,338 miles in 2012 to 59,963 miles in 2013.

Brazilian highway conditions, 2011-2013



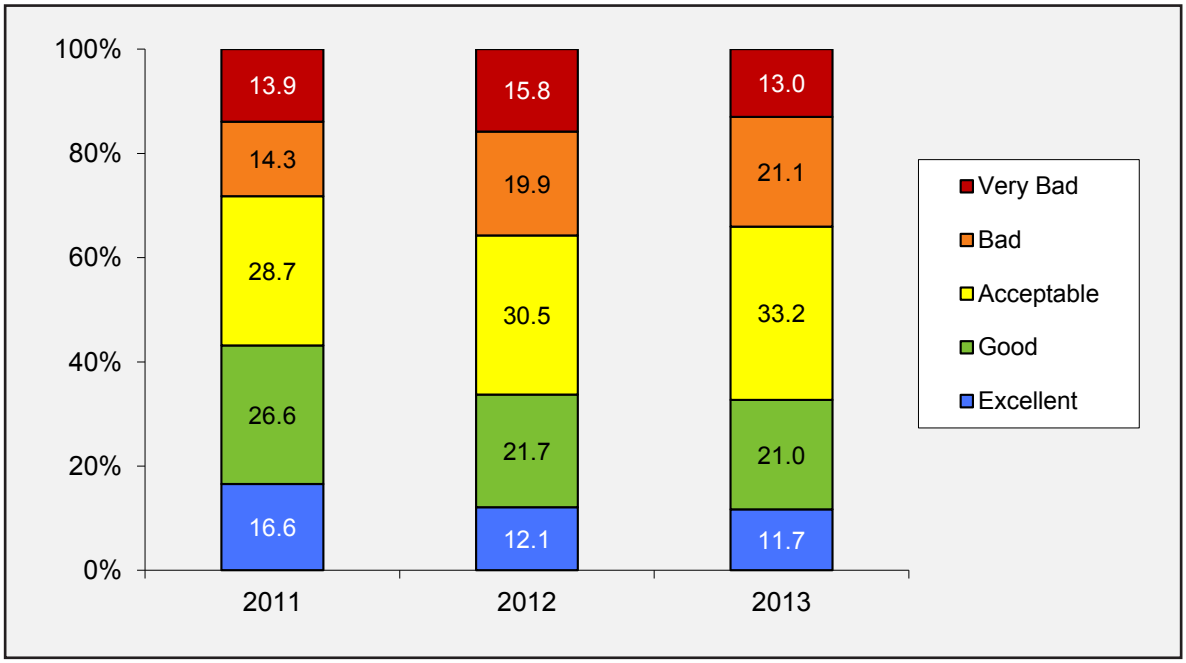
Source: Confederação Nacional do Transporte (CNT)

Brazilian paved highway conditions, 2011-2013



Source: Confederação Nacional do Transporte (CNT)

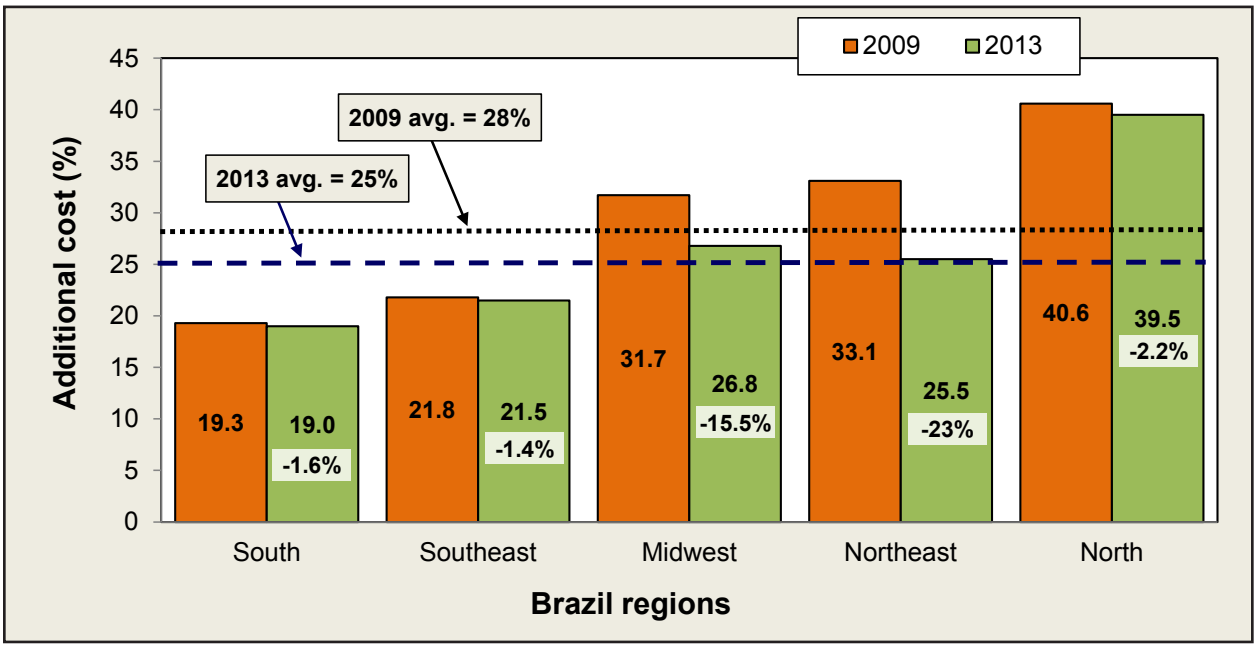
Brazilian road sign conditions, 2011-2013



Source: Confederação Nacional do Transporte (CNT)

The CNT estimates that due to the poor conditions of the paved roads, the 2013 marginal operational cost of cargo trucks is 25 percent higher compared with a paved road under optimal conditions. Overall, the 2013 additional operational cargo cost (25 percent) was lower than 2009 (28 percent). This cost declined significantly in the Northeast and Midwest regions. For example, if the cost of shipping a metric ton of soybeans from Sorriso, North MT to Santos is $100/mt. The 2013 optimal cost should be $75/mt.

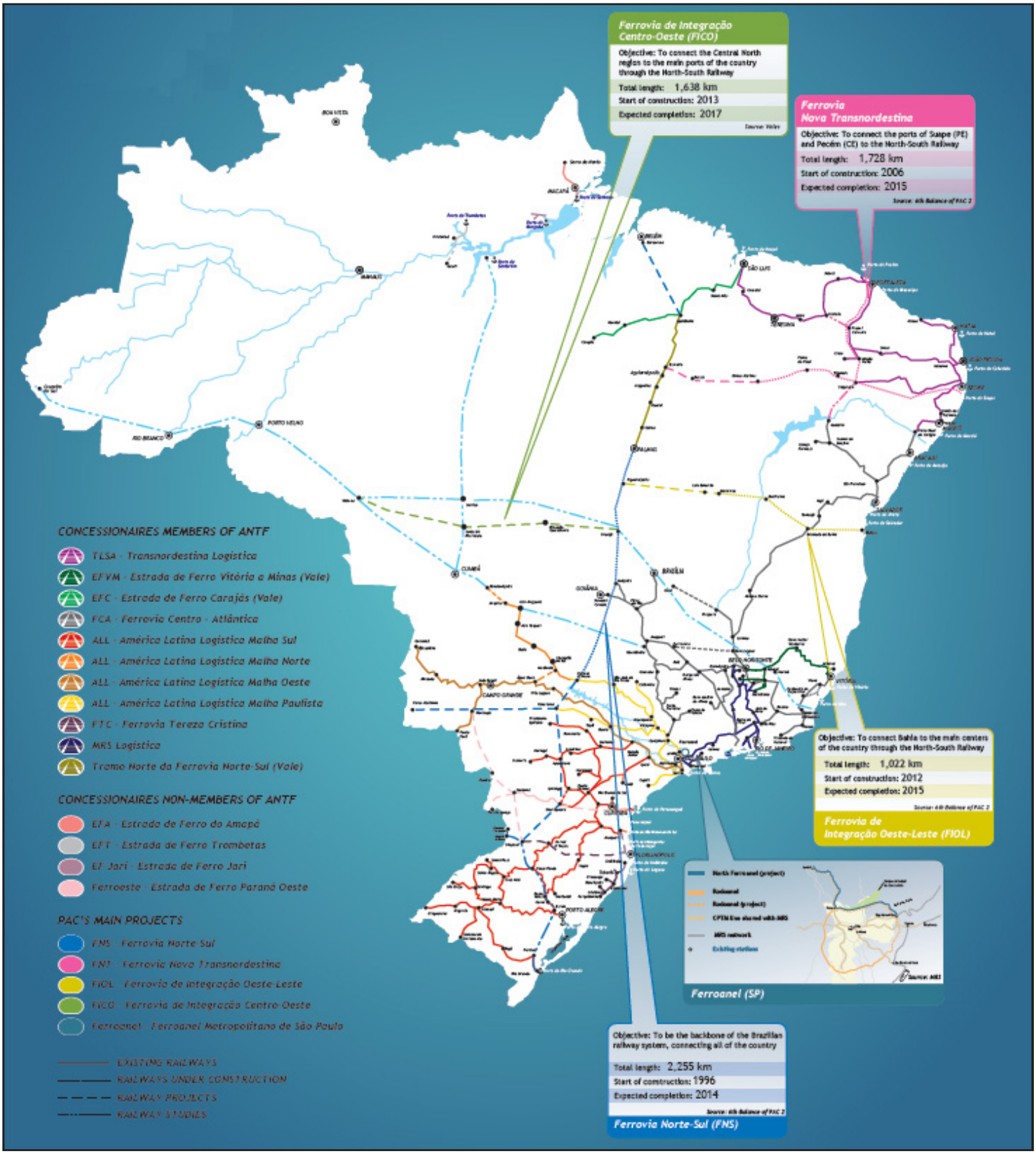
Cost increases due to road pavement conditions, 2009-2013



Source: Confederação Nacional do Transporte (CNT)

Brazilian railway expansion: ongoing projects

The Brazilian railroad system consists of 12 railroads with an extension of 26,596 miles, mostly concentrated in the South, Southeast, and Northeast.

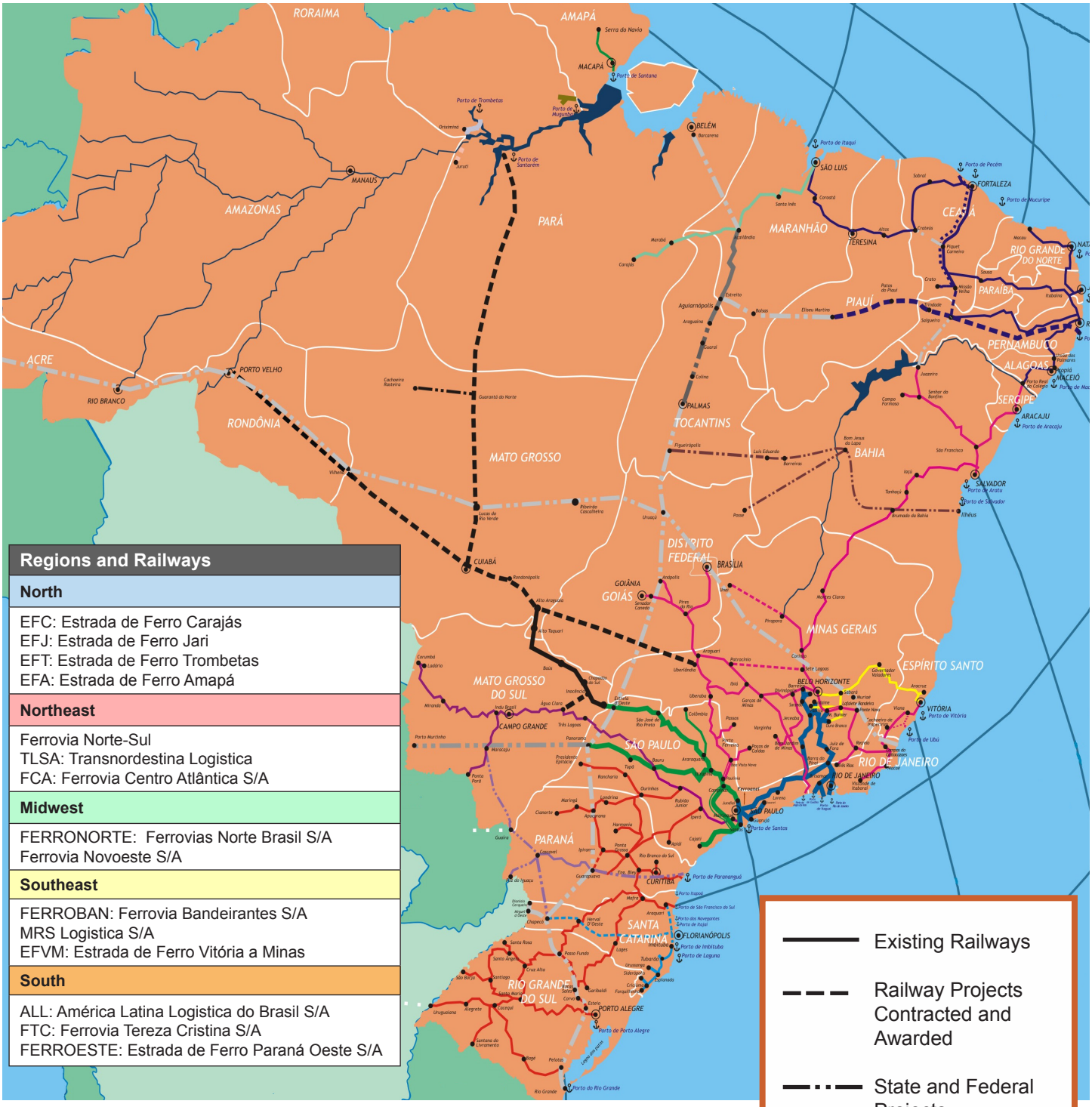


Source: National Association of Rail Transporters (ANTF)

Transportation Modes

Brazilian rail system: gauge sizes

The gauge system (distance between two rails) varies by region, creating difficulties in integrating the system like the North American region which uses a standard gauge. There are three types of gauge: metric (39"), broad (63") and mixed (39"-63"). The metric gauge accounts for 86 percent of the total Brazilian rail miles, and predominates in the Southern region. The broad gauge accounts for 12 percent of total railroads and prevails in the Southeast region, leaving about 2 percent mixed.



Source: National Association of Rail Transporters (ANTF)

United States: soybean supply and distribution (1,000 metric tons)									
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1999/00	29,318	9,484	72,224	114	81,822	26,537	42,927	47,388	7,897
2000/01	29,303	7,897	75,055	97	83,049	27,103	44,625	49,203	6,743
2001/02	29,532	6,743	78,672	63	85,478	28,948	46,259	50,867	5,663
2002/03	29,339	5,663	75,010	127	80,800	28,423	43,948	47,524	4,853
2003/04	29,330	4,853	66,783	151	71,787	24,128	41,632	44,600	3,059
2004/05	29,930	3,059	85,019	152	88,230	29,860	46,160	51,410	6,960
2005/06	28,834	6,960	83,507	92	90,559	25,579	47,324	52,751	12,229
2006/07	30,190	12,229	87,001	246	99,476	30,386	49,198	53,473	15,617
2007/08	25,959	15,617	72,859	269	88,745	31,538	49,081	51,627	5,580
2008/09	30,222	5,580	80,749	361	86,690	34,817	45,230	48,112	3,761
2009/10	30,907	3,761	91,417	397	95,575	40,798	47,673	50,671	4,106
2010/11	31,003	4,106	90,605	393	95,104	40,957	44,851	48,295	5,852
2011/12	29,856	5,852	84,192	439	90,483	37,150	46,348	48,723	4,610
2012/13	30,823	4,610	82,561	984	88,155	35,913	45,967	48,416	3,826
2013/14	30,703	3,826	89,507	2,449	95,782	43,545	46,266	48,842	3,395
2014/15**	32,564	3,395	98,929	408	102,732	44,225	46,675	49,666	8,841

*Data based on Local Marketing Year (MY). Soybeans are on a September/August MY
**Forecast, June 11 2014
Source: USDA/Foreign Agricultural Service/Circular Series

Soybean production (1,000 metric tons)						
Country*	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15**
United States	90,605	84,192	82,561	89,507	98,929	98,929
Brazil	75,300	66,500	82,000	87,500	91,000	91,000
Argentina	49,000	40,100	49,300	54,000	54,000	54,000
China	15,080	14,485	13,050	12,200	12,000	12,000
India	9,800	11,000	11,500	11,000	12,000	12,000
Paraguay	7,128	4,043	8,300	8,100	8,200	8,200
Canada	4,445	4,298	5,086	5,200	6,100	6,100
Other	12,787	14,907	16,056	16,281	17,766	17,591
Total	**264,145**	**239,525**	**267,853**	**283,788**	**299,995**	**299,820**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast, June 11, 2014
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean imports (1,000 metric tons)						
Country*	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15****
China	52,339	59,231	59,865	69,000	72,000	72,000
European Union	12,472	12,070	12,506	12,450	12,500	12,500
Mexico	3,498	3,606	3,409	3,650	3,740	3,740
Japan	2,917	2,759	2,830	2,800	2,800	2,800
Taiwan	2,454	2,285	2,286	2,200	2,300	2,300
Thailand	2,139	1,907	1,867	1,930	2,100	2,100
Indonesia	1,898	1,922	1,795	1,900	1,975	1,975
Egypt	1,644	1,661	1,658	1,600	1,700	1,700
Vietnam	932	1,290	1,258	1,350	1,450	1,450
Turkey	1,351	1,057	1,249	1,160	1,200	1,200
Other	7,116	5,668	6,841	9,341	6,913	6,563
Total	**88,760**	**93,456**	**95,564**	**107,381**	**108,678**	**108,328**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast, June 11, 2014
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean exports (1,000 metric tons)						
Country*	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15****
Brazil	29,951	36,257	41,904	45,500	45,000	45,000
United States	40,957	37,150	35,913	43,545	44,225	44,225
Argentina	9,205	7,368	7,738	8,500	9,000	9,000
Paraguay	5,226	3,574	5,518	4,300	4,320	4,320
Canada	2,943	2,933	3,484	3,400	3,700	3,700
Other	3,418	4,869	6,091	5,747	6,081	6,081
Total	**91,700**	**92,151**	**100,648**	**110,992**	**112,326**	**112,326**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast, June 11, 2014
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean crush (1,000 metric tons)						
Country*	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15****
China	55,000	60,970	64,950	68,350	72,500	72,500
United States	44,851	46,348	45,967	46,266	46,675	46,675
Argentina	37,614	35,886	33,611	37,300	39,800	39,800
Brazil	36,330	38,083	35,235	37,000	37,100	37,100
European Union	12,355	12,245	12,743	12,350	12,580	12,580
India	9,400	9,600	9,600	9,200	9,900	9,900
Mexico	3,625	3,675	3,650	3,850	3,965	3,965
Paraguay	1,570	900	2,950	3,500	3,700	3,700
Russia	2,170	2,400	2,440	2,740	2,800	2,800
Bolivia	1,800	2,000	2,175	2,000	2,100	2,100
Japan	2,149	1,960	1,915	1,960	1,950	1,950
Taiwan	2,060	2,020	1,920	1,770	1,920	1,920
Egypt	1,644	1,620	1,640	1,620	1,680	1,680
Canada	1,425	1,411	1,541	1,600	1,675	1,675
Thailand	1,820	1,751	1,425	1,550	1,600	1,600
Other	7,577	7,243	7,502	8,033	8,503	8,503
Total	**221,390**	**228,112**	**229,264**	**239,089**	**248,448**	**248,448**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast, June 11, 2014
Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean ending stocks (1,000 metric tons)						
Country*	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15****
Argentina	21,403	16,389	22,402	28,554	31,656	31,156
Brazil	23,636	13,024	15,330	17,905	24,305	24,555
China	14,538	15,909	12,378	13,698	13,498	13,498
United States	5,852	4,610	3,826	3,395	8,841	8,977
European Union	536	537	246	588	883	650
Other	4,390	3,124	2,861	3,028	3,701	3,389
Total	**70,355**	**53,593**	**57,043**	**67,168**	**82,884**	**82,225**

*Most countries are on an October/September Marketing Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY.
**Forecast, June 11, 2014
Source: USDA/ Foreign Agricultural Service/Circular Series

Quarterly costs of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China										
	2013					2013				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	To Hamburg, Germany (via U.S. Gulf)									
	Minneapolis, Minnesota --US$/mt--					Davenport, Iowa --US$/mt--				
Truck	10.98	9.46	13.38	12.42	11.56	10.98	9.46	13.38	12.42	11.56
Rail**	36.48	-	-	-	36.48	27.93	-	-	-	27.93
Barge[1]	11.92	25.59	27.93	37.73	25.79	11.92	17.77	21.94	33.90	21.38
Ocean[2]	19.57	20.97	24.85	26.07	22.87	19.57	20.97	24.85	26.07	22.87
Total transportation[2]	78.95	56.02	66.16	76.22	69.34	70.40	48.20	60.17	72.39	62.79
Farm price[3]	526.66	535.23	521.76	460.52	511.04	530.33	545.03	529.11	466.64	517.78
Landed cost	605.61	591.25	587.92	536.74	580.38	600.73	593.23	589.28	539.03	580.57
Transport % of landed cost	13.0	9.5	11.3	14.2	12.0	11.7	8.1	10.2	13.4	10.9
	To Shanghai, China (via U.S. Gulf)									
	Minneapolis, Minnesota --US$/mt--					Davenport, Iowa --US$/mt--				
Truck	10.98	9.46	13.38	12.42	11.56	10.98	9.46	13.38	12.42	11.56
Rail**	36.48	-	-	-	36.48	27.93	-	-	-	27.93
Barge[1]	11.92	25.59	27.93	37.73	25.79	11.92	17.77	21.94	33.90	21.38
Ocean[2]	43.73	43.47	45.71	54.13	46.76	43.73	43.47	45.71	54.13	46.76
Total transportation[2]	103.11	78.52	87.02	104.28	93.23	94.56	70.70	81.03	100.45	86.69
Farm price[3]	526.66	535.23	521.76	460.52	511.04	530.33	545.03	529.11	466.64	517.78
Landed cost	629.77	613.75	608.78	564.80	604.28	624.89	615.73	610.14	567.09	604.46
Transport % of landed cost	16.4	12.8	14.3	18.5	15.5	15.1	11.5	13.3	17.7	14.4
	To Shanghai, China (via PNW)									
	Fargo, ND --US$/mt--					Sioux Falls, SD --US$/mt--				
Truck	10.98	9.46	13.38	12.42	11.56	10.98	9.46	13.38	12.42	11.56
Rail**	57.47	57.77	57.12	59.31	34.74	59.06	58.89	58.67	60.88	34.74
Ocean[2]	23.08	22.88	25.15	28.62	24.93	23.08	22.88	25.15	28.62	24.93
Total transportation[2]	91.53	90.11	95.65	100.35	94.41	93.12	91.23	97.20	101.92	95.87
Farm price[3]	530.19	513.19	491.14	456.62	497.79	522.99	530.33	508.29	456.62	504.56
Landed cost	621.72	603.30	586.79	556.97	592.20	616.11	621.56	605.49	558.54	600.43
Transport % of landed cost	14.7	14.9	16.3	18.0	16.0	15.1	14.7	16.1	18.2	16.0

**Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River
[1]The Mississippi River closes from Minneapolis to just north of St. Louis from mid-December to late March.
[2]Source: O'Neil Commodity Consulting; Excludes handling charges
[3]Source: USDA/NASS

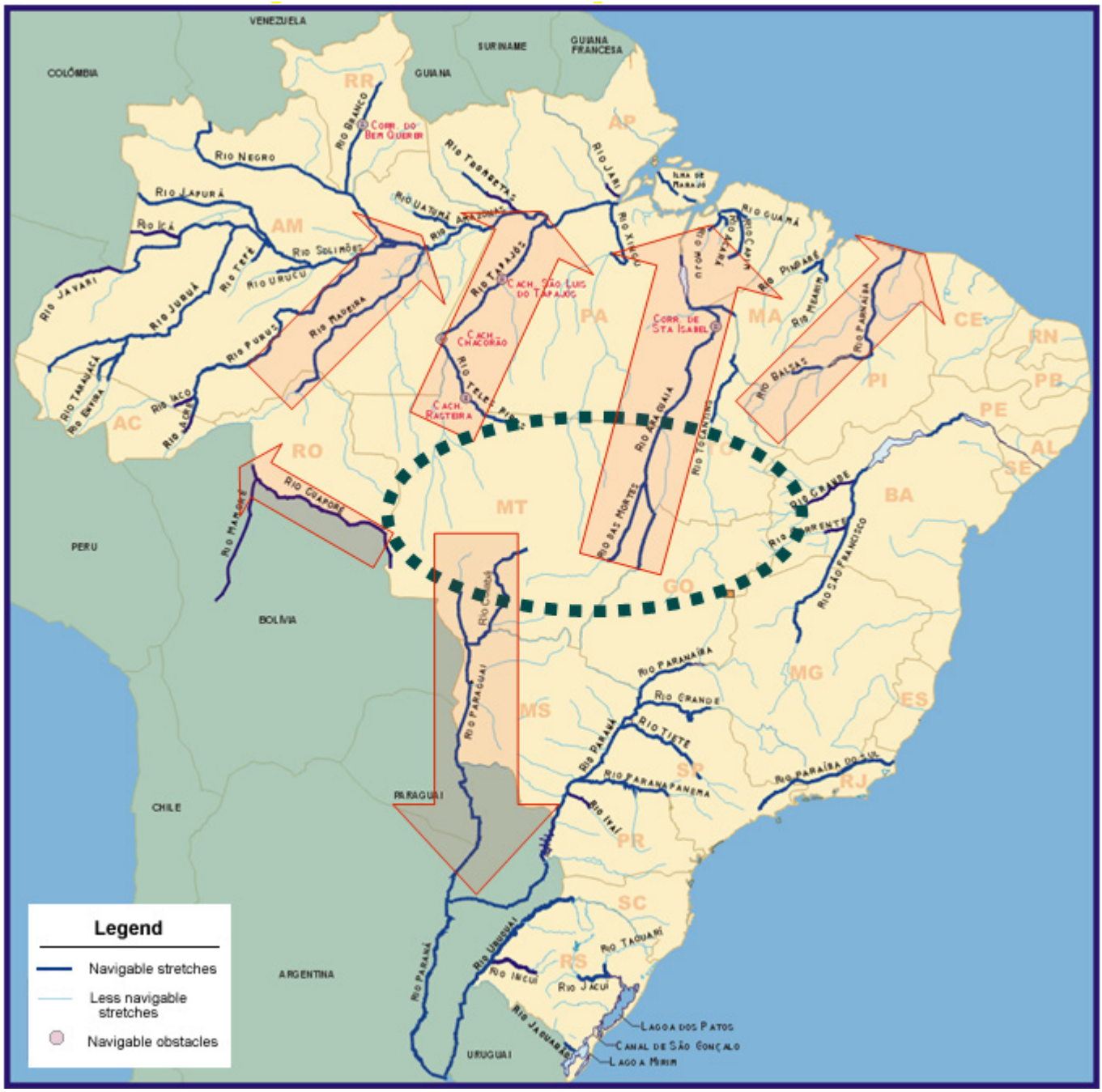
Average quarterly exchange rate															
	1st qtr	2nd qtr	3rd qtr	4th qtr	2006	1st qtr	2nd qtr	3rd qtr	4th qtr	2007	1st qtr	2nd qtr	3rd qtr	4th qtr	2008
Real per US$	2.1959	2.1852	2.1711	2.1520	**2.1761**	2.1082	1.9818	1.9177	1.7857	**1.9484**	1.7365	1.6561	1.6678	2.2779	**1.8346**
	1st qtr	2nd qtr	3rd qtr	4th qtr	2009	1st qtr	2nd qtr	3rd qtr	4th qtr	2010	1st qtr	2nd qtr	3rd qtr	4th qtr	2011
Real per US$	2.3113	2.0728	1.8680	1.7386	**1.9977**	1.8003	1.7927	1.7487	1.6963	**1.7595**	1.6673	1.5962	1.6357	1.8012	**1.6751**
	1st qtr	2nd qtr	3rd qtr	4th qtr	2013	1st qtr	2nd qtr	3rd qtr	4th qtr	2013					
Real per US$	1.7701	1.9641	2.0288	2.0576	**1.9551**	1.9977	2.0673	2.2880	2.2735	**2.1566**					

Source: Banco Central do Brasil

Selected quarterly Brazilian farm prices (US$/metric ton)*				
Year	Rio Grande do Sul	Mato Grosso	Goiás	Paraná
2007				
1st qtr	249.78	196.22	231.95	251.13
2nd qtr	228.00	198.61	225.49	239.48
3rd qtr	256.59	234.16	267.93	272.70
4th qtr	333.86	306.30	349.22	361.26
Average	267.06	233.82	268.65	281.14
2008				
1st qtr	404.89	349.23	406.90	423.63
2nd qtr	429.72	389.20	401.89	434.42
3rd qtr	435.02	419.80	409.37	435.49
4th qtr	309.01	277.74	274.34	303.68
Average	394.66	358.99	373.13	399.31
2009				
1st qtr	315.99	264.63	288.68	326.95
2nd qtr	359.68	315.88	336.86	373.16
3rd qtr	374.28	347.80	356.43	391.57
4th qtr	388.08	369.07	371.29	398.17
Average	359.51	324.34	338.31	372.46
2010				
1st qtr	331.49	261.05	309.89	325.22
2nd qtr	304.36	269.58	271.15	300.32
3rd qtr	342.98	328.51	315.43	350.41
4th qtr	400.78	413.46	400.62	425.79
Average	344.90	318.15	324.27	350.44
2011				
1st qtr	431.68	406.96	441.07	459.96
2nd qtr	425.42	386.58	413.15	435.53
3rd qtr	428.53	416.62	417.65	440.47
4th qtr	377.84	358.24	379.70	390.69
Average	415.87	392.10	412.89	431.66
2012				
1st qtr	405.07	377.70	401.58	428.80
2nd qtr	448.47	448.29	428.40	475.69
3rd qtr	557.90	570.66	566.91	593.20
4th qtr	521.43	536.60	522.33	557.54
Average	483.22	483.31	479.80	513.81
2013				
1st qtr	460.13	419.35	445.56	476.22
2nd qtr	459.96	391.58	419.62	461.97
3rd qtr	448.29	404.93	405.90	453.28
4th qtr	458.54	426.00	442.20	481.71
Average	456.73	410.46	428.32	468.29

Source: Companhia Nacional de Abastecimento (CONAB)

Major river export routes



Source: National Agency for Waterway Transportation (ANTAQ)

Major river system corridors

Sources: Ministério dos Transportes, Brazil
National Agency for Waterway Transportation (ANTAQ)

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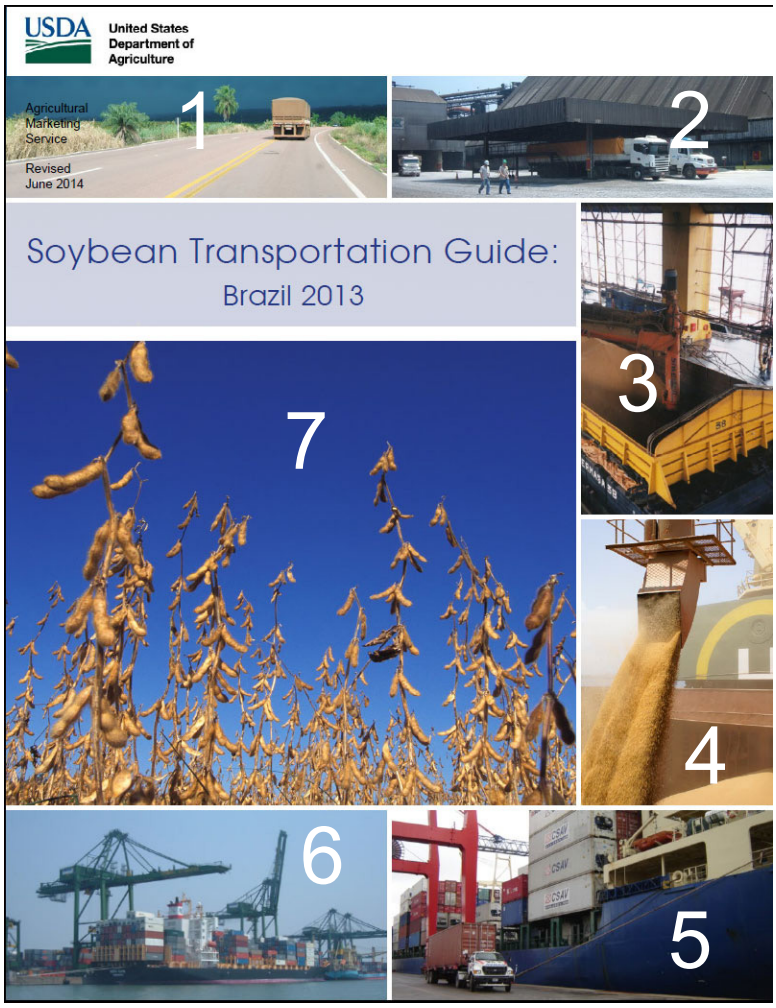

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