

Chapter 31

Report on Global Environment

Competitiveness of Brazil

Brazil is the largest country in South America and in the Latin America region. Bounded by the Atlantic Ocean on the east. It is bordered on the north by Venezuela, Guyana, Suriname and the French overseas region of French Guiana; on the northwest by Colombia; on the west by Bolivia and Peru; on the southwest by Argentina and Paraguay and on the south by Uruguay. It covers 8,459.4 thousand of square kilometres. It had a population of 196.66 million and domestic production the gross (GDP) of USD 2476.65 billion in 2011. Through the evaluation of global environment competitiveness, we can know that the environment competitiveness index of Brazil ranks at 5 among 133 countries.

Score:
57.46
Rank:
5

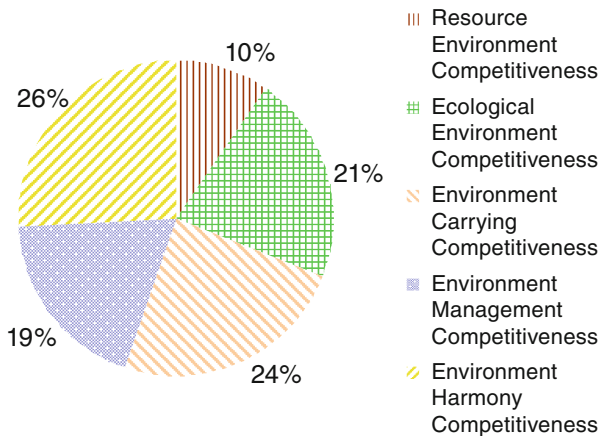


Fig. 31.1 Contribution of sub-index to GEC

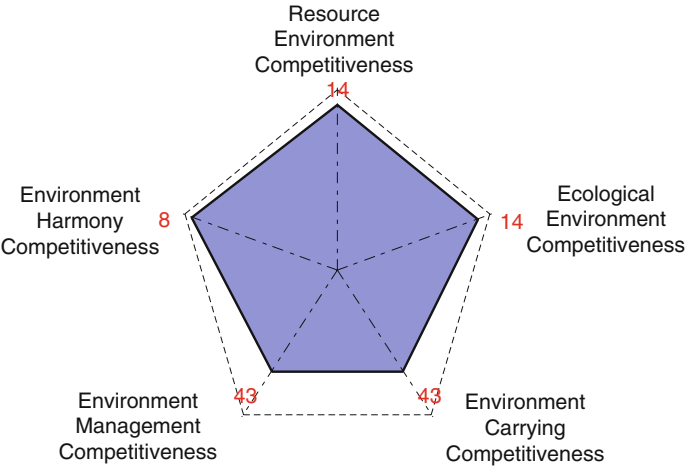


Fig. 31.2 Rank of sub-index of GEC

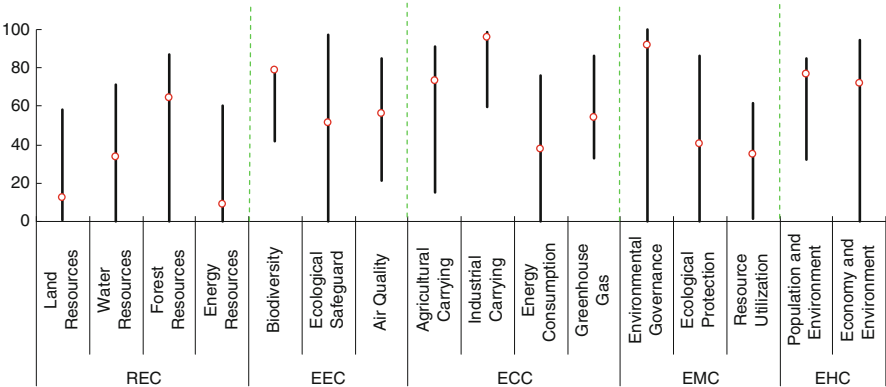


Fig. 31.3 Score and rank of the pillars of GEC

Table 31.1 Score and rank of all indicators of GEC

Indicators	Score	Rank	Indicators	Score	Rank
1 Resource Environment Competitiveness	28.18	14	Groundwater	31.88	24
1.1 Land Resources	12.51	67	Total internal renewable water resources	32.30	37
Land area per capita	7.73	31	1.3 Forest Resources	64.15	4
Percentage of arable land to total land area	14.29	88	Growing stock in forest and other wooded land	100.00	1
Arable land per capita	17.12	27	Proportion of land area covered by forest	71.63	10
1.2 Water Resources	33.88	28	Forest area per capita	18.35	15
Surface water	10.50	30	1.4 Energy Resources	8.93	47
Annual precipitation	60.82	18			

(continued)

Table 31.1 (continued)

Indicators	Score	Rank	Indicators	Score	Rank
Fossil energy	0.54	38	Energy consumption per unit of land area	99.94	33
Energy production	1.28	54	Ratio of clean energy consumption	26.65	27
Proportion of combustible renewable and waste to total energy consumption	32.80	30	Elasticity of energy consumption	13.71	79
Net energy imports of the energy consumption	11.75	46	Elasticity of electric power consumption	10.61	72
2 Ecological Environment Competitiveness	61.40	14	3.4 Greenhouse Gas	53.87	119
2.1 Biodiversity	78.73	2	Growth rate of CO ₂ emissions	26.58	125
Threatened fish species	60.38	122	Growth rate of Methane emissions	53.71	95
Threatened mammal species	55.98	130	CO ₂ emissions per unit of land area	99.95	39
Threatened plant species	77.30	131	CO ₂ emissions per unit of energy consumption	62.52	32
GEF benefits index for biodiversity	100.00	1	4 Environment Management Competitiveness	54.18	43
2.2 Ecological Safeguard	51.43	14	4.1 Environmental Governance	91.69	60
Terrestrial protected areas	71.20	11	Agricultural chemicals regulation	90.48	37
Marine protected areas	21.78	15	Percentage of the rural population with access to an improved water source	85.00	72
2.3 Air Quality	55.87	78	Percentage of the urban population with access to an improved water source	100.00	1
Inhalable particles (PM10)	86.86	30	4.2 Ecological Protection	40.40	43
Particulate matter (PM2.5)	93.79	19	Area of plantation and afforestation	9.61	7
Index of indoor air pollution	38.30	56	Biome protect	82.70	41
Nitrogen oxides emission	18.50	130	Overfishing of fishing resources	39.14	74
Sulfur dioxide emission	36.51	116	4.3 Resource Utilization	35.06	74
3 Environment Carrying Competitiveness	69.21	43	Utilization rate of water resources	0.02	119
3.1 Agricultural Carrying	73.40	29	Percentage of total internal renewable water resources to total water resources	53.61	85
Cereal yield per unit of arable land	41.57	38	Percentage of agricultural land to total land area	36.96	95
Fertilizer consumption per unit of arable land	89.90	86	Percentage of fossil fuel energy consumption to total energy consumption	49.64	36
Annual freshwater withdrawals for agriculture per unit of arable land	99.33	53			
3.2 Industrial Carrying	96.23	7			
Net exports of goods as a percentage of GDP	93.51	8			
Electric power consumption per unit of value added of industry	93.62	45			
SO ₂ emissions per unit of value added of industry	99.92	35			
Annual freshwater withdrawals for industry per value added of industry	97.86	62			
3.3 Energy Consumption	37.73	32			

(continued)

Table 31.1 (continued)

Indicators	Score	Rank	Indicators	Score	Rank
5 Environment Harmony Competitiveness	74.36	8	CO ₂ emissions per capita	94.72	54
5.1 Population and Environment	76.93	32	Energy consumption per capita	90.36	62
Percentage of population with access to Improved sanitation facilities	80.00	78	5.2 Economy and Environment	71.79	20
Motor vehicles per 1,000 people	68.27	87	Land resource utilization efficiency	0.08	73
Renewable internal freshwater resources per capita	33.34	13	Sulfur dioxide emissions per unit of GDP	97.82	30
SO ₂ emissions per capita	96.74	58	Carbon dioxide emissions per unit of GDP	95.40	11
			Energy consumption per unit of GDP	93.85	23

Table 31.2 Rank distribution of the individual indicators of GEC

Sub-index	Number of the individual indicators	Rank 1–10	Rank 11–30	Rank 31–60	Rank 61–100	Rank 101–133
Resource Environment Competitiveness	14	3	5	4	2	0
Ecological Environment Competitiveness	11	1	4	1	1	4
Environment Carrying Competitiveness	15	2	2	6	3	2
Environment Management Competitiveness	10	1	0	4	4	1
Environment Harmony Competitiveness	10	0	4	3	3	0
Total	60	7	15	18	13	7

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