



Newsletter VIGIAR/DF

Special Edition

Year 02 Number 14

06/11/2014

Objective: Report to the Federal District's population and visitors about the risks of air pollution and its relationship to human health during the World Cup 2014.

1 – AIR QUALITY CLOSE TO LOCAL AGGLOMERATION WORLD CUP 2014 (Source:IBRAM)

Date	Smoke			PTS		
	Rod	SCS	Tag	Rod	SCS	Tag*
06/02/2014	32,36	20	*	172,15	135,44	*
06/03/2014	43,86	23,58	*	175,85	135,44	*
06/04/2014	42,16	14,63	*	208,42	105,66	*
06/05/2014	19,48	17,93	*	**	**	*

* On 11/26/2013, equipment was involved in a traffic accident not noticed, without further sampling. Triggered the insurer liable.

** No sampling

The monitoring points featured in this issue are located in the vicinity of Mané Garrincha Stadium, Road Plano Piloto, Hotel Sector and Fanf Fest. De general, air quality, as assessed by parameters Brasilia-IBRAM Environmental Institute in the month of June 2014 air quality related to smoke is good, reaching levels of care for Total Suspended Particle-PTS, which can cause sensitive groups (children, the elderly and people with respiratory and heart disease), symptoms such as dry cough and tiredness, although the population in general, is not affected.



1.1 - FORECAST FOR THE PERIOD 11 to 13.Jun.2014 (Source: INPE)

	Carbon monoxide - CO	Particulate matter - MP	Ozone - O ₃	Nitrogen oxides - NO _x
11/june	Good	Good	Moderate	Moderate
12/june	Good	Good	Moderate	Moderate
13/june	Good	Good	Moderate	Moderate

Table 1. Higher emission rates predicted for the period from 11 to 13 June 2014. There is no variation of the emission of carbon monoxide during the study period. The highest predicted to particulate matter emission will give 03h, 18h ozone and nitrogen oxides at 00h, as mapped by the National Institute of Space Research-INPE.

2 - FOCI OF FIRES IN FEDERAL DISTRICT

2.1 - OUTBREAKS OF FIRE OBSERVED FROM 05 to 06.Jun.2014 (Source:INPE)

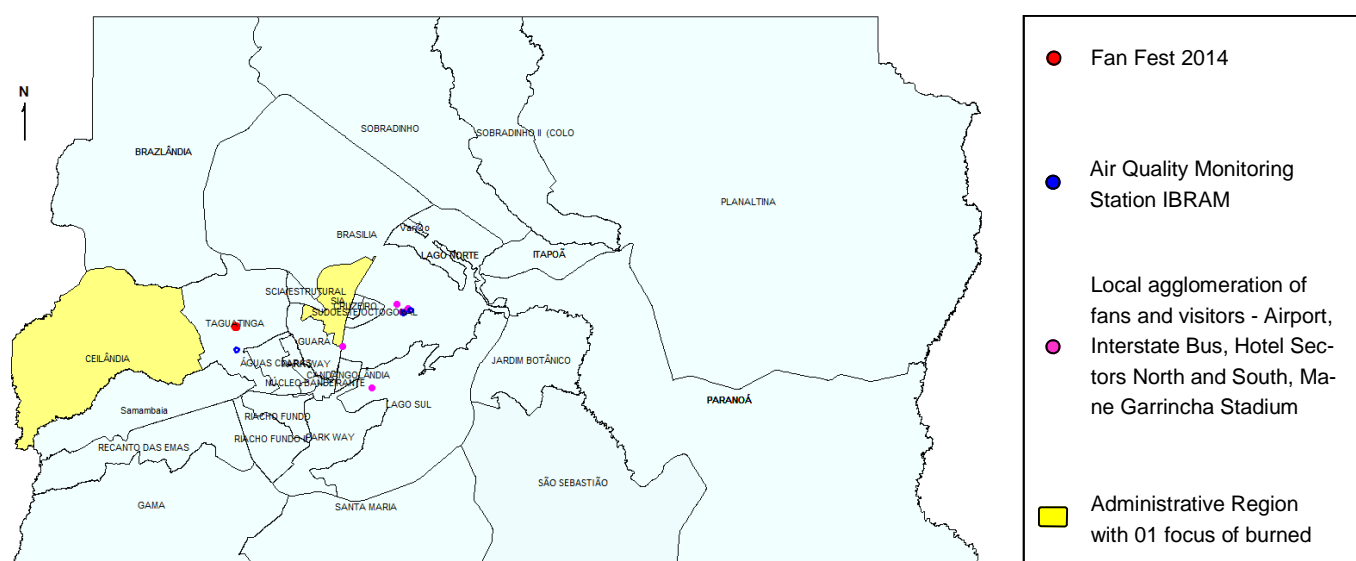


Figure 1. Foci of fires in the DF in the period of 05 to 10 June 2014.



2.2 - RISK OF FIRES FOR THE PERIOD 11 to 06/13/2014 (Source:INPE)

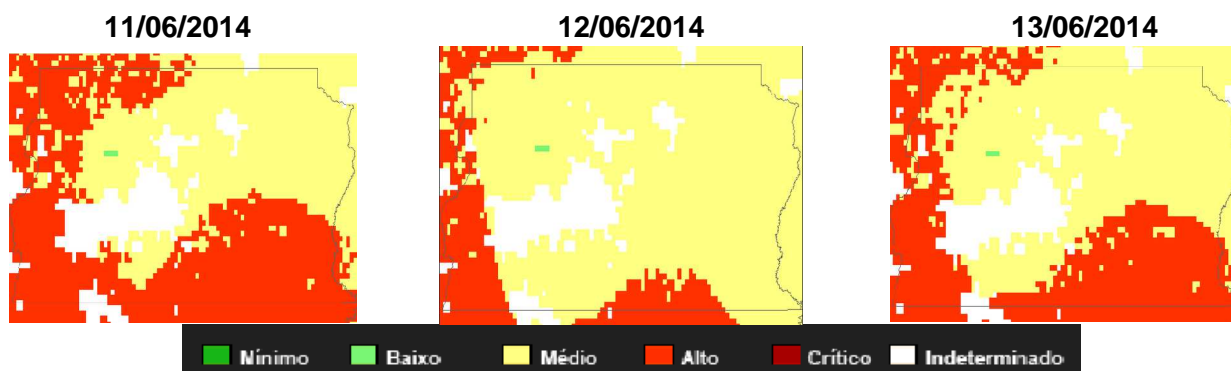


Figure 2. Risk of fire in the Federal District.

The risk of fire planned for 11 to 06/13/2014 features levels that vary from medium to critical in the Federal District, with some areas of indeterminacy or null. However, it is important to keep attention to the picture presented in order to trigger actions to prevent and control when necessary, in accordance with Decree No. 17,431, of June 11, 1996, establishing the Plan for Prevention and Control of Forest Fires in the Federal District and other measures.

3 - WEATHER










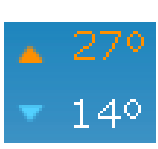

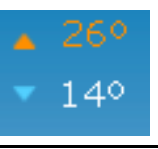

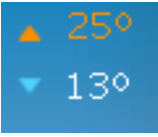
3.1 - METEOROLOGICAL OBSERVATIONS: 05.Jun.2014 to 10.Jun.2014

The meteorological conditions for the period of 05.Jun.2014 a 10.Jun.2014, from conventional meteorological station of Brasília (15.79 ° S, 47.93 ° W and altitude of 1159.54 meters relative to mean sea level) the National of Meteorology Institute -INMET.

Data	Temperatura (°C)	Temperatura (°C)	Temperatura (°C)	Precipitação (mm)	Umidade (%)
	Média	Máxima	Mínima		
05.Jun	21,5	26,5	15,2	0	71
06.Jun	22,5	26,8	15,3	0,1	61
07.Jun	22,9	26,3	15,6	0	50
08.Jun	22,4	26	14,5	0	51
09.Jun	22	26	14,5	0	51
10.Jun	20,8	25	15,7	0	60



3.2 - WEATHER FORECAST FOR THE PERIOD: 11.Jun.2014 a 15.Jun.2014

Data	Conditions	Temperatures	Humidity		Winds	
11.Jun	 Clear to party cloudy with haze		 Umidade Máxima 80%	 Umidade Mínima 40%	weak to moderate with gusts	Direction: SE-NE
12.Jun	 Clear with haze		 Umidade Máxima 90%	 Umidade Mínima 40%	weak to moderate with gusts	Direction: SE-NE
13.Jun	 Party cloudy to cloudy		-	-	weak to moderate with gusts	Direction: NE
14.Jun	 Party cloudy to cloudy		-	-	weak to moderate with gusts	Direction: NE
15.Jun	 Clear to party cloudy with haze		-	-	weak to moderate with gusts	Direction: SE

4 - ULTRAVIOLET INDEX

4.1– UVI MAXIMUM EXPECTED 06.Jun.2014 (Source:INPE)

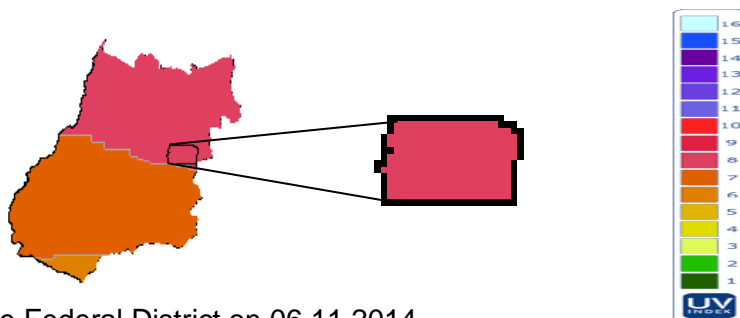
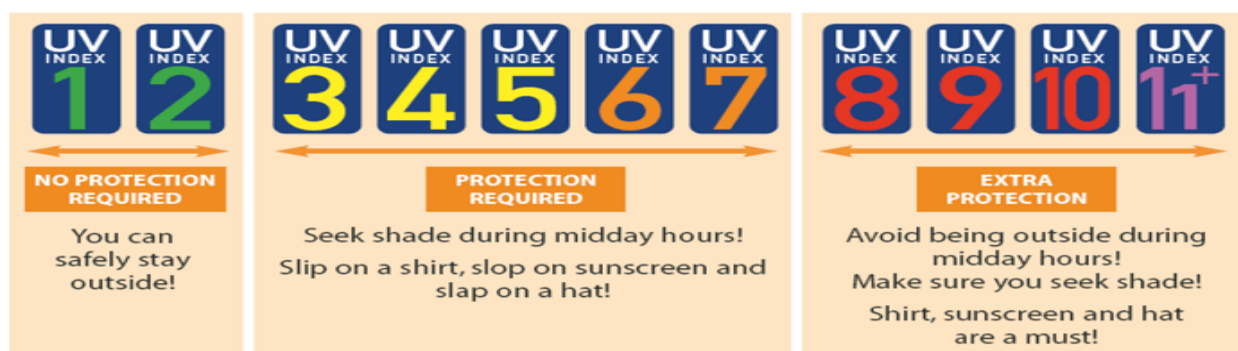


Figure 8 - Ultraviolet Index in the Federal District on 06.11.2014.



5 - CLIMATOLOGY WORLD CUP 2014

Brazil is divided in five distinctive administrative regions and, in each of these regions, there will be World Cup events (figure 1 illustrates the spatial localization of the host cities). The host-cities and their respective regions are:



North Region: Manaus (AM);

Southeast Region: Rio de Janeiro (RJ), São Paulo (SP) and Belo Horizonte (MG);

Northeast Region: Natal (RN); Fortaleza (CE); Recife (PE) and Salvador (BA);

Midwest Region: Brasília (DF) and Cuiabá (MT);

South Region: Curitiba (PR) and Porto Alegre (RS).

Midwest Region

The Midwest is the second largest region in Brazil, situated at a location known as central plateau, with an area of approximately 1.606.371,505 Km²; the region is central and is not bathed by the Atlantic Ocean. In this region the contrast between winter and summer is very noticeable. Summer is essentially hot and rainy (December to March), whilst winter is dry and colder (June to September). The climate characteristics suffer influences from systems coming from the north and south of the continent. In the summer, the region is dominated by the Chaco Low on the surface, and the Bolivian High on high levels. These systems, dynamically coupled, move towards north during the winter.

Winter presents drought characteristics and mild temperatures due to the frequent invasion of cold air fronts coming from extratropical areas. The lines of instability occur both in the summer, associated with the low level convergence, as in the winter, anticipating the entry of fronts. In this region, two Host Cities were selected: Brasília (DF) and Cuiabá (MT).

Host City – BRASÍLIA (DF), capital of Brazil and Government Headquarters of the Federal District (DF), located on coordinates 15°48'S and 47°51'W, on an altitude of approximately 1100 meters above sea level. The average mean temperature is 20.6°C, and the highest average occurs in September (21.7°C) and the lowest in July (18.3°C). The annual average of maximum temperature is 26.6°C, reaching a maximum of 28.3°C in September and a minimum of 25.1°C in July. Regarding the minimum temperature, the annual mean is of 16.1°C; November, December and March present the highest average (17,5°C), and July the lower average (12.9°C), in a way that July is the coldest month and September, pronominally, the hottest. The annual-mean insolation is of 2363 hours, with number superior than 200 hours from April to September, reaching the highest average in July (266.5 hours) and the lowest in December (138.1 hours).



The average annual accumulated precipitation is of 1540.6 mm and presents a rainy period that extends from end of September until the beginning of May under the influence of the Continental Equatorial Mass providing the city, and region, with weather conditions generally cloudy and evolving, in late afternoon, to overcast with showers and thunderstorms. January is the rainiest month (247.4 mm) and June stands as the least rainy month (8.7 mm). Important to point out that June, July and August (winter) and September are usually the driest months of the year. In average, annually occur 111 days with rain equal or over 1 mm; the highest average is in December (18 days) and the lowest during the winter (1 day). May and October are considered transition months between the two very well defined seasons. The average annual relative humidity of the air is of 67.6%, December is the most humid (79%) and august the least humid (49%).

In regards to winds, the annual average of the resulting direction is 76°, whereas the mean prevailing wind direction (cardinal and collateral points) is East from April to September and calm from October to March

Annual Mean Temperature	Annual Minimum Temperature	Annual Maximal Temperature	Annual Precipitation	Record of Most Intense Rain in 24h	Record of Minimum Temperature	Record of Maximal Temperature
20,6 °C	16,1°C	26,6°C	1540,6 mm	132,8mm 11/1963	1,6 °C 07/1975	34,5 °C 10/1963

Extremes for the period of 1991-2013 - BRASÍLIA			
Months	Maximum Pluviometric Precipitation (mm)/year	Absolute Maximum Temperature (° C)/ year	Absolute Minimum Temperature (° C)/ year
June	13,3/1997	28,9/2010	6,9/1994,1996
July	14,6/2001	30,3/2006	6,6/1994

According to Köppen classification, the climate in this region is Rainy Tropical Savannah with dry winter that constitutes the so called “Second Zone Aw – 2”. Summer is hot and humid with temperatures that rarely surpass 30°C. Winter is dry and relatively cold.

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6 - RECOMMENDATIONS FOR HEALTH

Preparations for the trip

General precautions

- To have a safe and healthy stay in Brazil, inquire in advance about the destinations within the country, since there are different climates, foods and cultural habits;
- When deciding your itinerary, plan activities of interest and take preventive health measures;
- Get acquainted with your destination. Find out whether there is a risk of disease and need for vaccinations or other preventive measures;
- Avoid travel if you are ill;
- See your doctor, preferably between 4 and 8 weeks before the trip to inform your travel plan. Ask for guidance on precautions to protect against diseases and injuries;
- You may or may not have difficulty to find the medications you usually use during the trip. Seek your doctor's guidance as to which medications and in what quantity you should take during the trip, including hand baggage;
- Securely pack drugs according to the manufacturer's standards along with the original box and leaflet;
- Have a meal before traveling. Eat what you are used to, avoiding fats, since they can cause discomfort during the trip;
- Carry with you your identification documents, preferably in English and Portuguese, with personal contact information, blood type, whether you have allergies, diabetes or other conditions that may require special care;
- Follow the airlines' rules on the carriage of objects and liquids;
- If you feel a change in your health conditions during the trip, please inform the crew;
- Every pregnant woman should consult her doctor before traveling, as she will be subject to various risks and travel can affect her safety and comfort;
- Consult the transportation company specific rules for pregnant women before traveling.

Vaccinations

- Brazil does not require the International Certificate of Vaccination or Prophylaxis for entry into the country;
- Make sure that your routine immunizations are up to date, according to the recommendations of your country of origin, since it is an effective and safe measure for the prevention of various diseases;
- Although there are no cases of measles and rubella in Brazil, these diseases are present in other countries. Therefore, it is recommended to be vaccinated against them;
- Preparation for the trip is a good opportunity to check the vaccination status of infants, children, adolescents, adults and the elderly.



Prevention against yellow fever

- Prevent yellow fever by getting a vaccine 10 days before visiting forest areas or practicing ecological or rural tourism. [Check the list of municipalities with recommendations on vaccination against yellow fever \(only in portuguese\)](#);
- Seek your doctor to help you decide whether the vaccine is required based on your travel plan;

Prevention against malaria

- Before traveling, check the areas that have reported cases of malaria throughout the year ([endemic or malaria transmission area](#)) (only in portuguese);
- In Brazil, transmission is concentrated in the Amazon region, comprising the States of Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia, Roraima and Tocantins;
- In malaria transmission areas, it is essential that the traveler knows the period of greatest activity of malaria mosquito vectors, from sunset to dawn;
- Use light-colored clothes with long sleeves during high exposure activities;
- Apply repellent to exposed areas of your skin according to the manufacturer's instructions. It is not recommended to use repellent on children aged less than two years without medical advice;
- In malaria transmission areas, it is imperative that travelers stay tuned to the emergence of symptoms, such as fever, aching body and headache;
- In the event of the outbreak of any disease symptoms, seek the nearest specialized health facility. Ideally, this treatment must be provided as soon as possible, within 48 hours after the first symptoms;
- Brazil has a structured public health to diagnose and treat patients in timely and appropriate fashion;
- For more information about malaria prior to your trip, seek guidance at one of [the Reference Centers](#) (only in portuguese);
- For information on the incidence of malaria in the world visit [the World Health Organization website](#).

Referral hospitals SUS # Host City of the World Cup - Brasília / DF

HBDF - Hospital de Base do Distrito Federal Tel: 3315-1200

HMIB - HOSPITAL MATERNO INFANTIL DE BRASILIA Tel: 34457500

HRAN - HOSPITAL REGIONAL DA ASA NORTE Tel: 33254313

HRC - HOSPITAL REGIONAL DA CEILÂNDIA Tel: 33713444

HRT - HOSPITAL REGIONAL DE TAGUATINGA Tel: 33531006

HRS - HOSPITAL REGIONAL DE SOBRADINHO Tel: 34879200

HRG - HOSPITAL REGIONAL DO GAMA Tel: 33859700

Sources: Ministério da Saúde, 2014, available in www.saude.gov.br

Secretaria de Saúde do Distrito Federal, available in www.saude.df.gov.br



Electronic address Newsletter VIGIAR/ DF:

<http://www.saude.df.gov.br/outros-links/informes-epidemiologicos/768-2013-12-09-17-11-36.html>

Questions and / or suggestions

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