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Weekly & monthly analysis of wildfires in the Amazon region and South America: August 30 - September 5, 2021

2021

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Scope of this report and executive summary

This report describes the trends of wildfires in the Amazon in 2021 through the comparison with the fire activity in the region in previous fire seasons. It must be noted than 2019 and 2020 were critical years in terms of fire activity in many of the countries in the region. Seasonality and trends on fire activity in the countries can be found at the "country profile application" in GWIS. The current report has been produced by the European Commission's Joint Research Centre (JRC) within its activities on the development of a Global Wildfire Information System (GWIS)[1] and the EU Project on support to wildfire management in LAC. Most of the Amazon region is in Brazil, specifically in the Brazilian Legal Amazon (BLA)[2], and in other neighbor countries. Figure 1 shows the geographical extent of the countries analyzed in this report.

- In the **Brazil Legal Amazon (BLA)**, within Brazil, a total of 8.50 Million ha (Mha) burnt since January 1 until September 5, 2021. This value is below those of 2019 and 2020 in the same period. **Last week, 171 fires occurred, decreasing from the peak from the last week.**
- **In Brazil, 14.02 Million ha (Mha) burnt since January 1 until September 5, 2021**, with a total of 68,243ha burnt in the last week. The total burnt area and number of fires in Brazil are lower than the values of 2019 and 2020 in the same period **(**228 fires occurred last week). The area burnt in the last week was the lowest value of the last 6 years for the same week. The average size of the fires is lower than in all the previous 6 years.
- **In Bolivia**, the total burnt area (3.30 Million ha (Mha)) and number of fires (6802 fires) decreased from the previous week. The total burned area this year is similar to the values of 2020 and lower than that of 2019.
- **In Colombia**, the total burnt area in the country (2.76 Mha) is above the values of 2018 and 2019 but approximately 10% below the values of 2020.The total number of fires since January 2021 is 9419, which is the highest value since 2015 for the same period.
- **In Paraguay**, 2.71 Million ha (Mha) burnt since January 1 until September 5, 2021. This figure is above those in 2018 and 2019 but 26 % below the values of 2020.
- **In Peru,** since January 1 until September 5, 2021, the total burnt area (1.21 Mha) and total number of fires (4513) are the second highest values recorded since 2015 (below 2020).
- **In Venezuela,** 4.27 Million ha (Mha) burnt in the current year until September 5. The value of the total burnt area in Venezuela is lower than that in 2019 and 2020.
- **In Chile,** 428,711 ha burnt in the current year until September 5, 2021. This value is 51% higher than that of 2020. This year, the number of fires (1591) is the highest since 2015.
- **In Argentina**, a total of 3.26 Million ha (Mha) burnt since January 1 until September 5, 2021, which is less than half of what was burned in 2020 in the same period. A total of 10904 fires were mapped in this period.
- **In Ecuador**, a total of 229 fires burnt 56,933 ha since January 1 until September 5, 2021. These values are similar to the values of the last 6 years.
- **In Uruguay**, a total of 47,040 ha burnt since January 1 until September 5, 2021. This value is higher than those of 2018 and 2019 but lower than the figure of 2020. One fire was recorded last week, a decrease from the previous week.
- **In French Guiana** a total of 893 ha burnt since January 1 until September 5, 2021. This value is similar to those of the previous years. One fire was recorded last week.
- **In Guyana,** a total of 61,285 ha burnt since January 1 until September 5, 2021, a value higher than that of 2018 but lower than the values in 2019 and 2020. 2 fires were mapped last week.
- **In Suriname**, 21 fires burnt a total of 4533 ha since January 1 until September 5,2021, a value similar to that of 2018 and lower than 2019 and 2020. 1 fire was mapped last week.
- This week, fire danger conditions are expected to remain extreme in great part of Brazil; fire danger will continue to be very high to extreme in the central and eastern part of Brazil and moderate to high in eastern and southwestern Bolivia, Paraguay and across Argentina.

[1] https://gwis.jrc.ec.europa.eu

[2] The Brazilian Legal Amazon is a geopolitical region in Brazil, established in the article 2 of the complementary law 124, of 2007, that includes 772 municipalities over 9 states. It comprises approximately five million square kilometres, which correspond to 59% of the Brazilian territory (IBGE, 2019)

Figure 1. Areas analyzed in this report: Brazil Legal Amazon, Brazil, Bolivia, Colombia, Paraguay, Peru, Venezuela, Chile, Argentina, Ecuador, Uruguay, French Guiana, Guyana and Suriname

1 Wildfires in the Brazilian Legal Amazon Region

Figure 2 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 8.50 Mha burnt in the BLA from January 1 until September 5, 2021, with 53,661 ha burnt in total during the last week, which is lowest value of the last six years for the same week. The number of fires recorded in GWIS in the last week was 171, decreasing from the previous week. The number of thermal anomalies until September 5, 2021 (379,570) shows a typical trend in the region as compared to the trends in 2018 and 2020, but the values remain below. 28,330 thermal anomalies were registered last week.

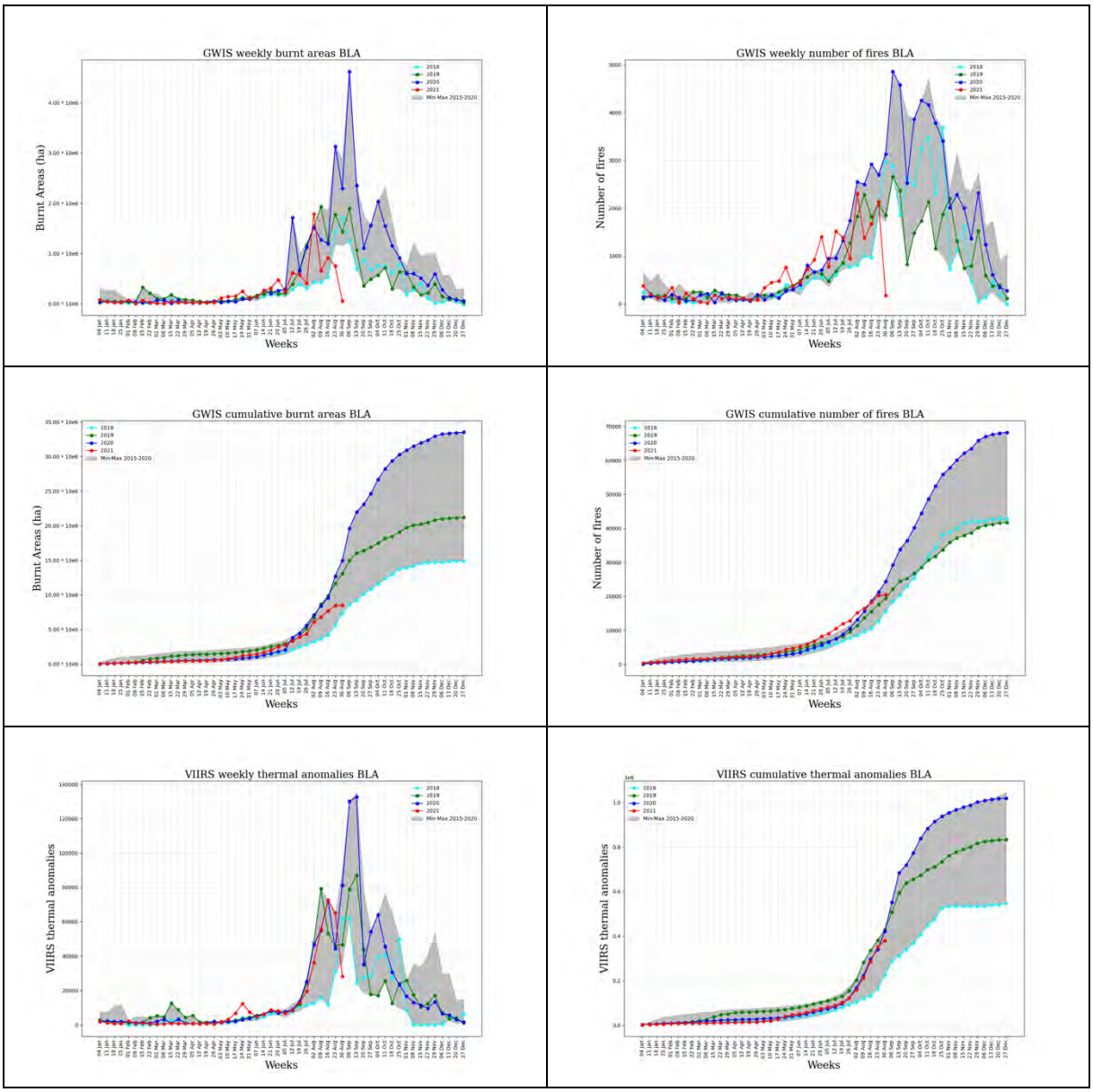


Figure 2. Trend of burnt areas and number of fires as compared to data in the last 6 years.

2 Wildfires in Brazil

Figure 3 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 14.02 Mha ha burnt in Brazil since January 1 until September 5, 2021, with a total 68,243 ha burnt in the last week. The total burnt area in the country remains below the values of the previous two years. The number of fires recorded in GWIS in the last week was 228, decreasing from the last week. The number of thermal anomalies until July 18, 2021 (620,317) shows a typical trend in the region. 47,148 thermal anomalies were registered last week.

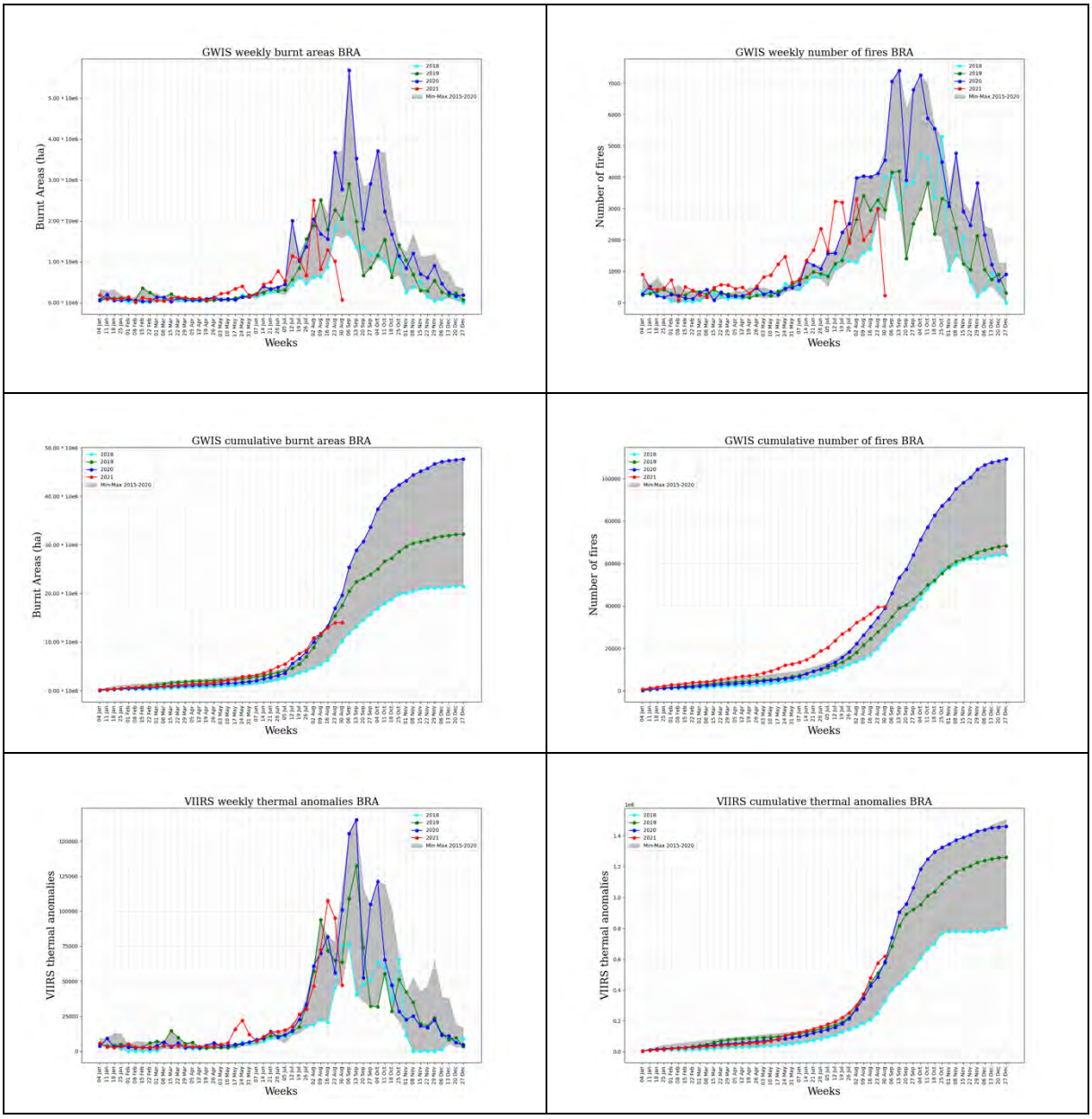


Figure 3. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

3 Wildfires in Bolivia

Figure 4 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 3.30 Mha ha burnt in Bolivia since January 1 until September 5, 2021, with 43,092 ha burnt in the last week, decreasing from the last week. The number of fires recorded in GWIS in the last week was 75, lower than the number of fires in the same week from the last 6 years. The number of thermal anomalies until September 5, 2021 (120,344) is the second highest value since 2015 for the same period. 12,593 thermal anomalies were detected by VIIRS in the last week.

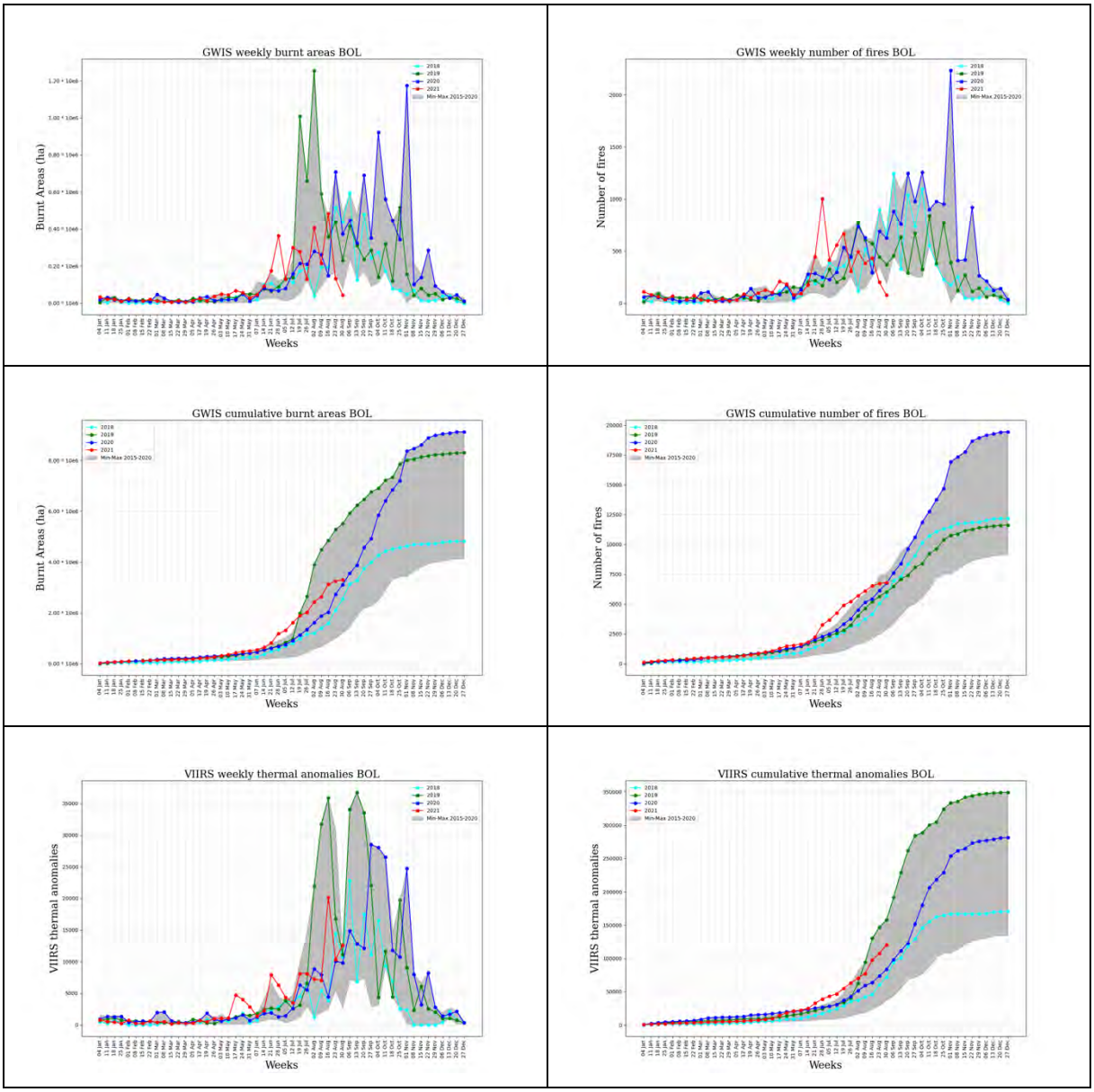


Figure 4. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

4 Wildfires in Colombia

Figure 5 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 2.76 Mha burnt in Colombia since January 1 until September 5, 2021. Approximately 2,198 ha burnt in the country the last week. The number of fires recorded in GWIS in the last week was 10 and the total number of fires since January 1 is the highest value since 2015 for the same period. The number of thermal anomalies until September 5, 2021 (63,968) follows a typical trend in the region with similar values of 2018 but way below of 2019 and 2020. 756 thermal anomalies recorded by VIIRS last week.

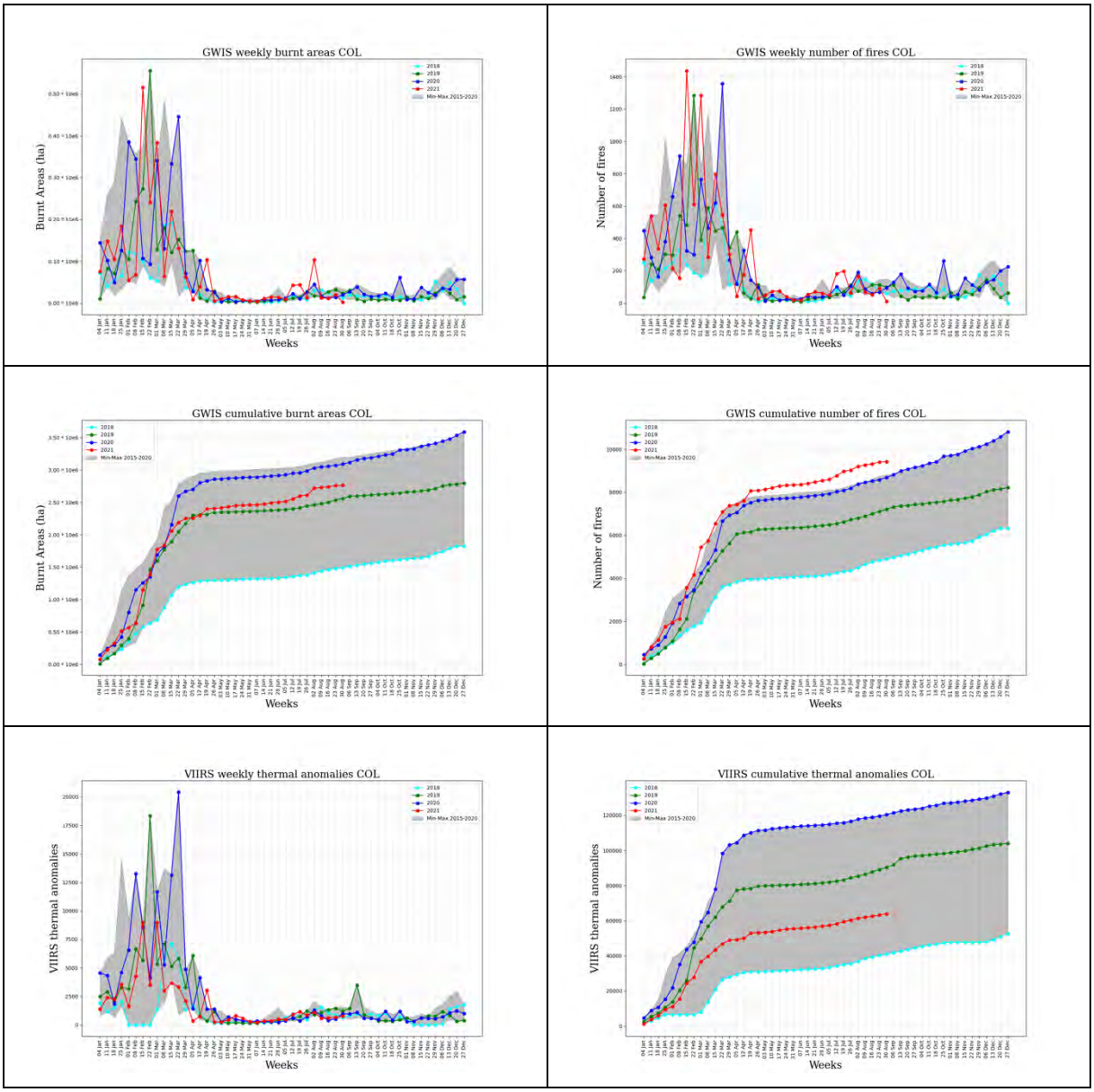


Figure 5. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

5 Wildfires in Paraguay

Figure 6 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 2.71 Mha burnt in Paraguay since January 1 until September 5, 2021. Approximately 14,224 ha burnt in the country the last week, decreasing from the previous week. The number of fires recorded in GWIS in the last week was 62. The number of thermal anomalies until September 5, 2021 (94,139) follows a typical trend in the region. 4199 thermal anomalies detected by VIIRS last week.

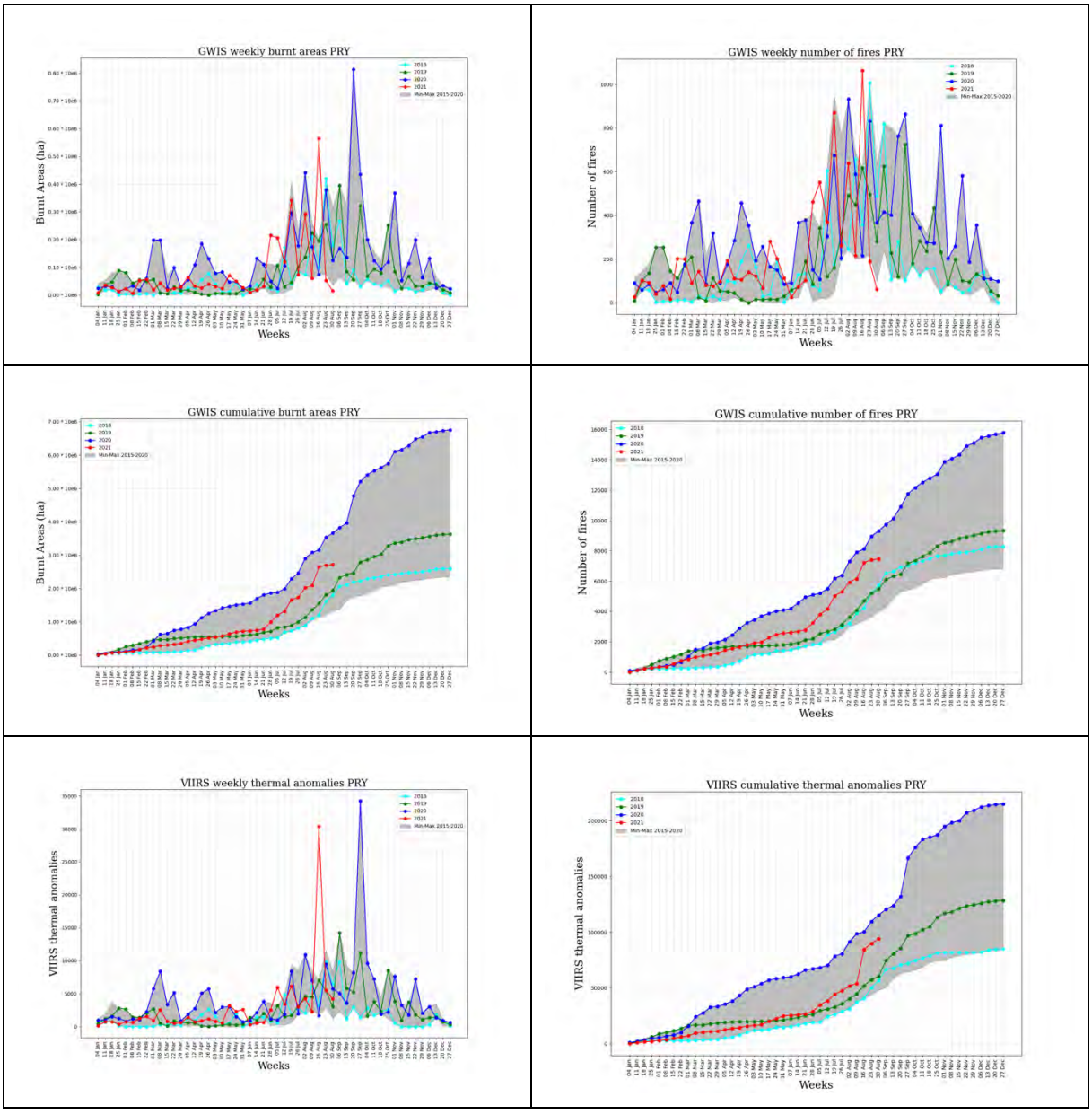


Figure 6. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

6 Wildfires in Peru

Figure 7 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 1.21 Mha burnt in Peru since January 1 until September 5, 2021, the second highest value since 2015 for the same period. Approximately 11,578 ha burnt in the last week, decreasing from the previous week. The number of fires recorded in GWIS in the last week was 48. The total number of fires since the beginning of the year is 1799, the highest value since 2015 for the same period. The number of thermal anomalies until September 5, 2021 (34,920) shows a typical trend in the region. 4904 thermal anomalies registered last week, decreasing after the last week.

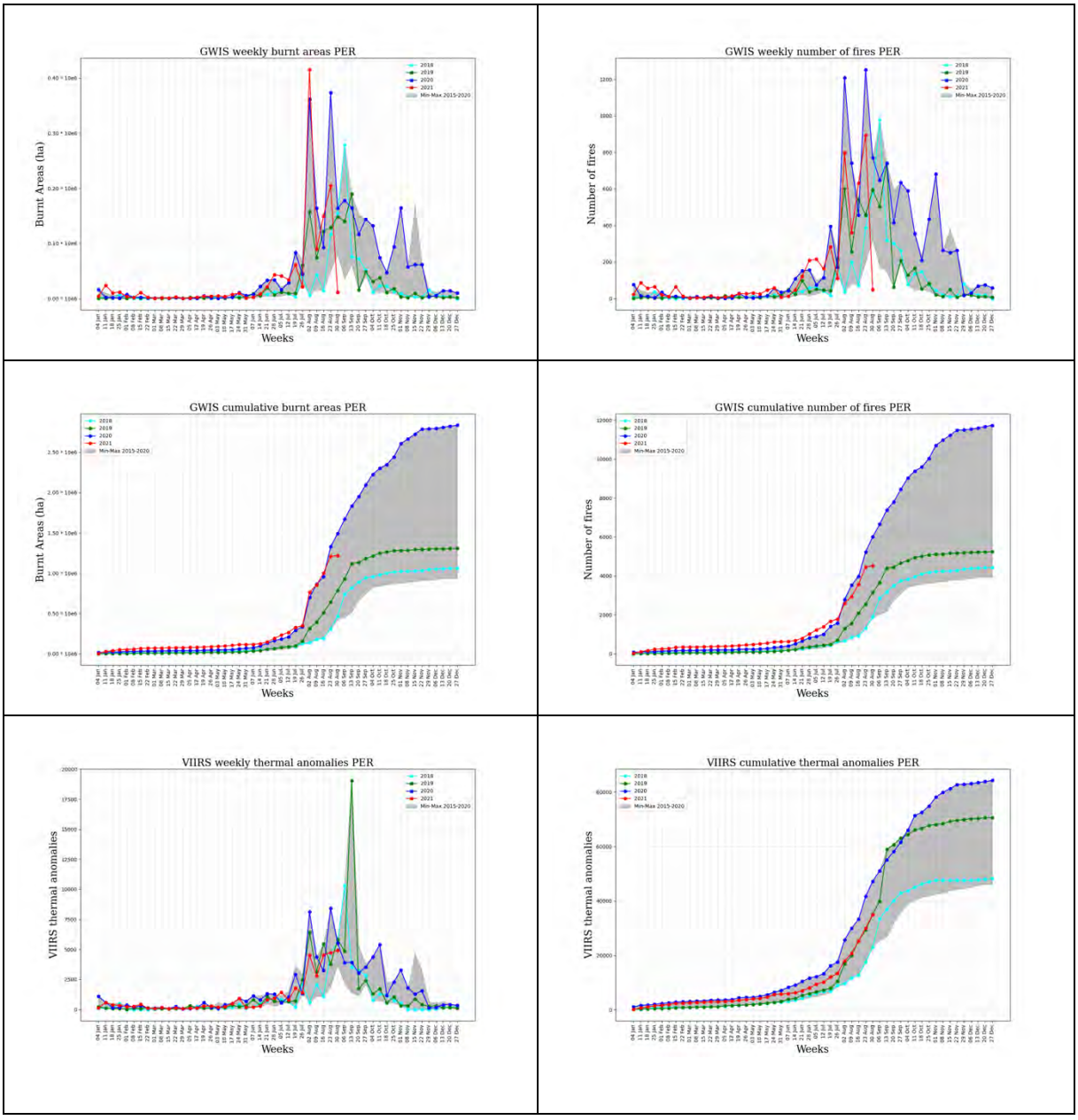


Figure 7. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

7 Wildfires in Venezuela

Figure 8 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 4.27 Mha burnt in Venezuela since January 1 until September 5, 2021, with 295 ha burnt in the last week. The number of fires recorded in GWIS in the last week was 2. The number of thermal anomalies until September 5, 2021 (122,658) shows a typical trend in the region. 937 thermal anomalies were recorded by VIIRS during the last week.

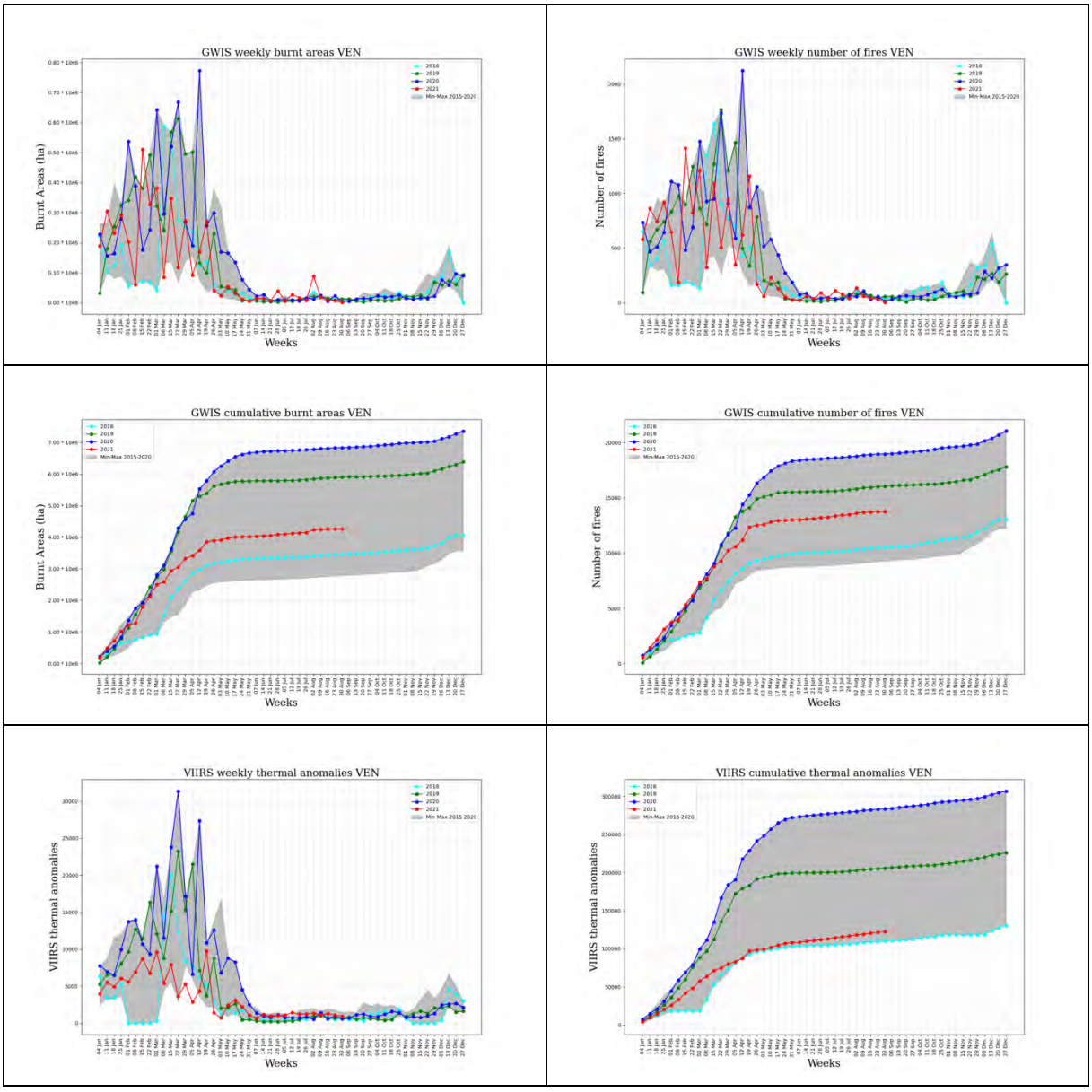


Figure 8. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

8 Wildfires in Chile

Figure 9 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 428,711 burnt in Chile since January 1 until September 5, 2021, with 1,116 ha burnt in the last week. The number of fires recorded in GWIS in the last week was 4. The number of thermal anomalies until September 5, 2021 (12,271) shows a typical trend in the region as compared to the trends during previous years. 140 thermal anomalies were detected by VIIRS during the last week, which is similar to the values in the same week during previous years.

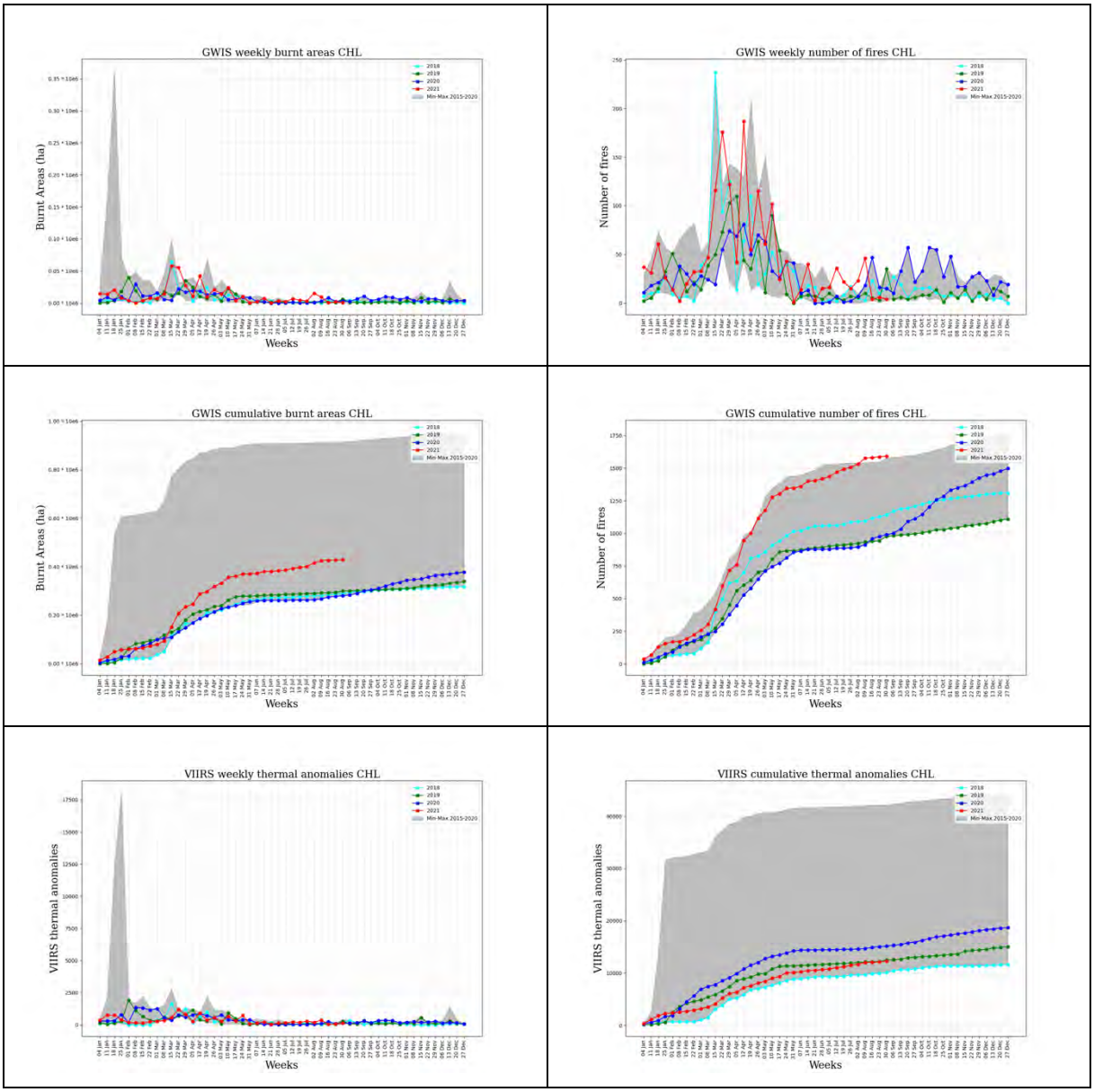


Figure 9. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

9 Wildfires in Argentina

Figure 10 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 3.26 Mha burnt in Argentina since January 1 until September 5, 2021, with 83,837 ha burnt in the last week. These values are below than of 2020. The number of fires recorded in GWIS in the last week was 287, one of the lowest value since 2015 for the same period. The number of thermal anomalies until September 5, 2021 (105,195) shows a typical trend in the region. 10310 thermal anomalies were recorded by VIIRS during the last week, a value that is like those recorded in that week for 2020.

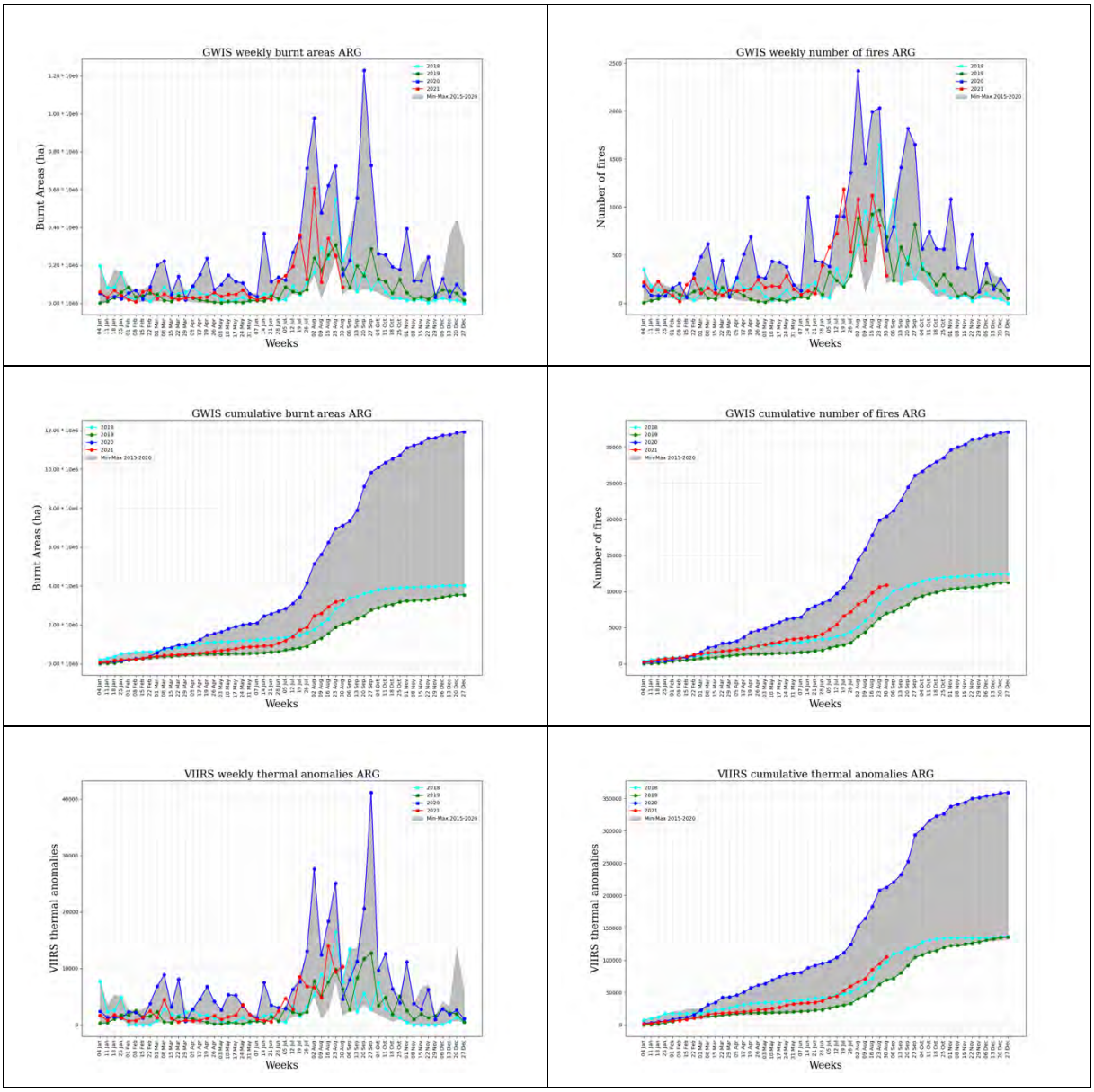


Figure 10. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

10 Wildfires in Ecuador

Figure 11 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 56,933 ha burnt in Ecuador since January 1 until September 5, 2021, similar values of 2020 for the same period, with 2604 ha burnt in the last week. The number of fires recorded in GWIS in the last week was 9. The number of thermal anomalies until September 5, 2021 (2059) shows a typical trend in the region. 191 thermal anomalies were detected by VIIRS in the last week.

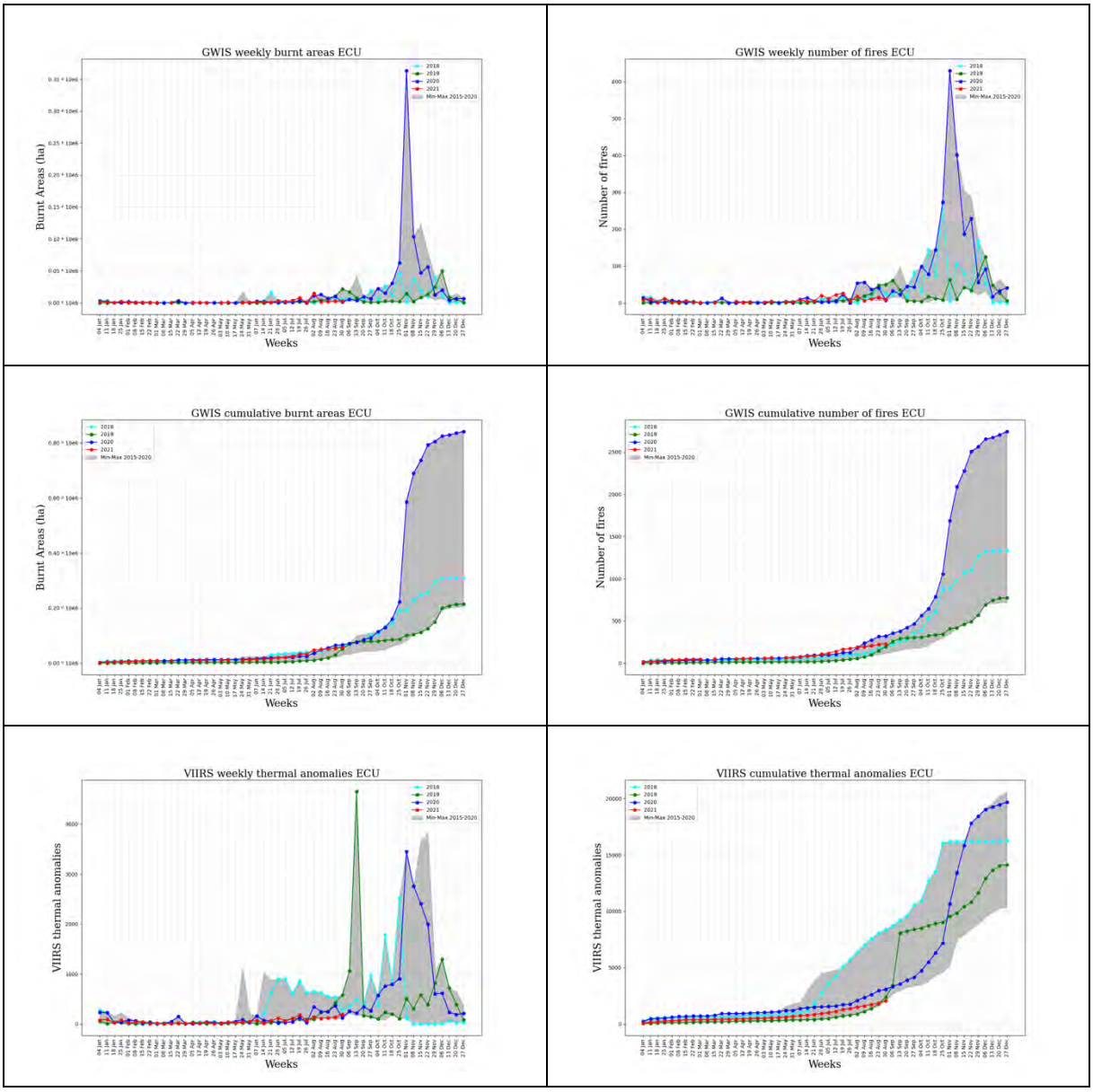


Figure 11. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

11 Wildfires in Uruguay

Figure 12 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 47,040 ha burnt in Uruguay since January 1 until September 5, 2021. 1 fire was recorded last week. The number of thermal anomalies until September 5, 2021 (1,592) shows a typical trend in the region.

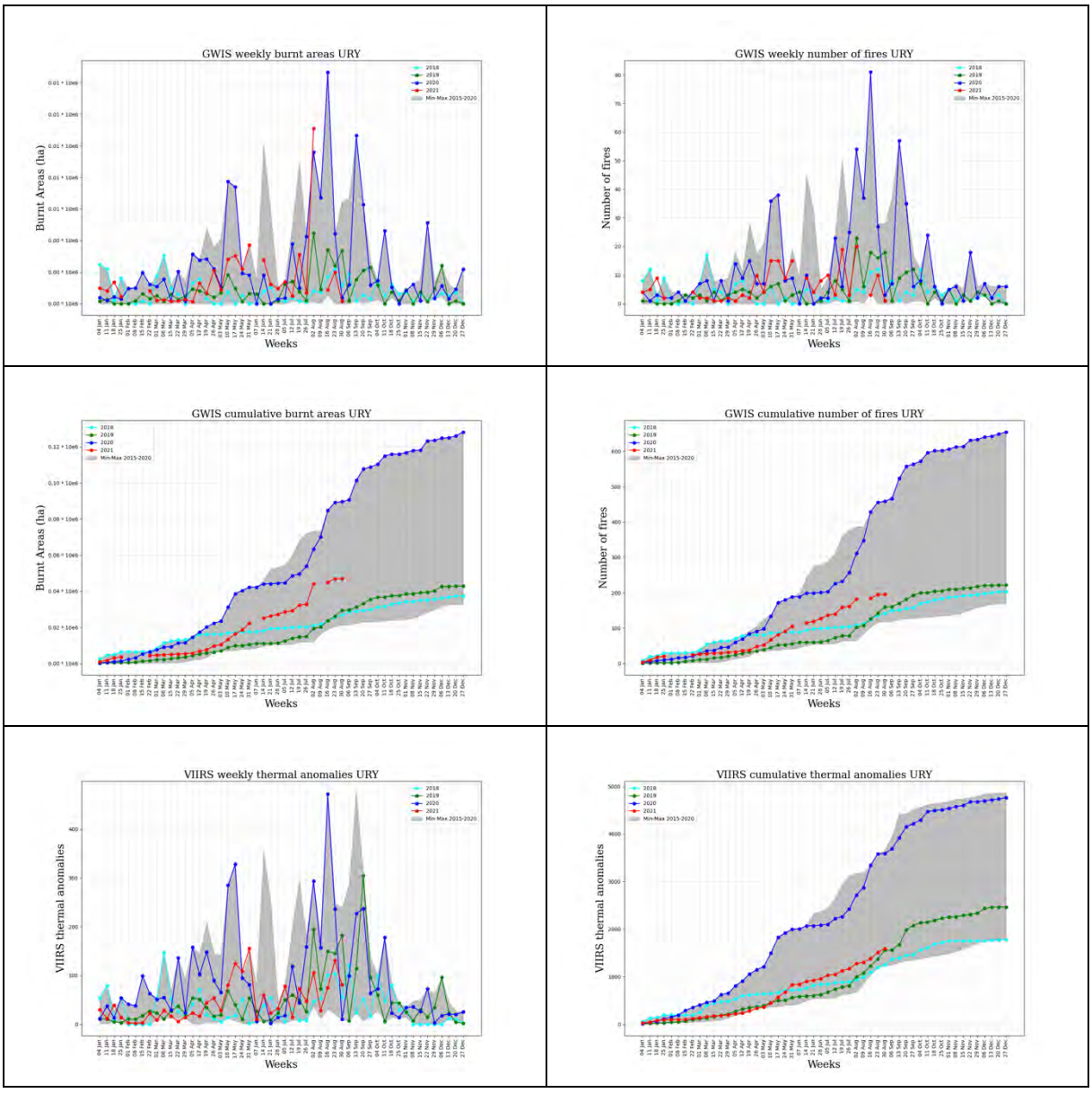


Figure 12. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

12 Wildfires in French Guiana

Figure 13 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 893 ha burnt since January 1 until September 5, 2021, with one fire recorded last week. The number of thermal anomalies until September 5, 2021 (55) shows a typical trend in the region as compared to the trends during previous years. 5 thermal anomalies were detected by VIIRS during the last week, which is similar to the values in the same week during previous years.

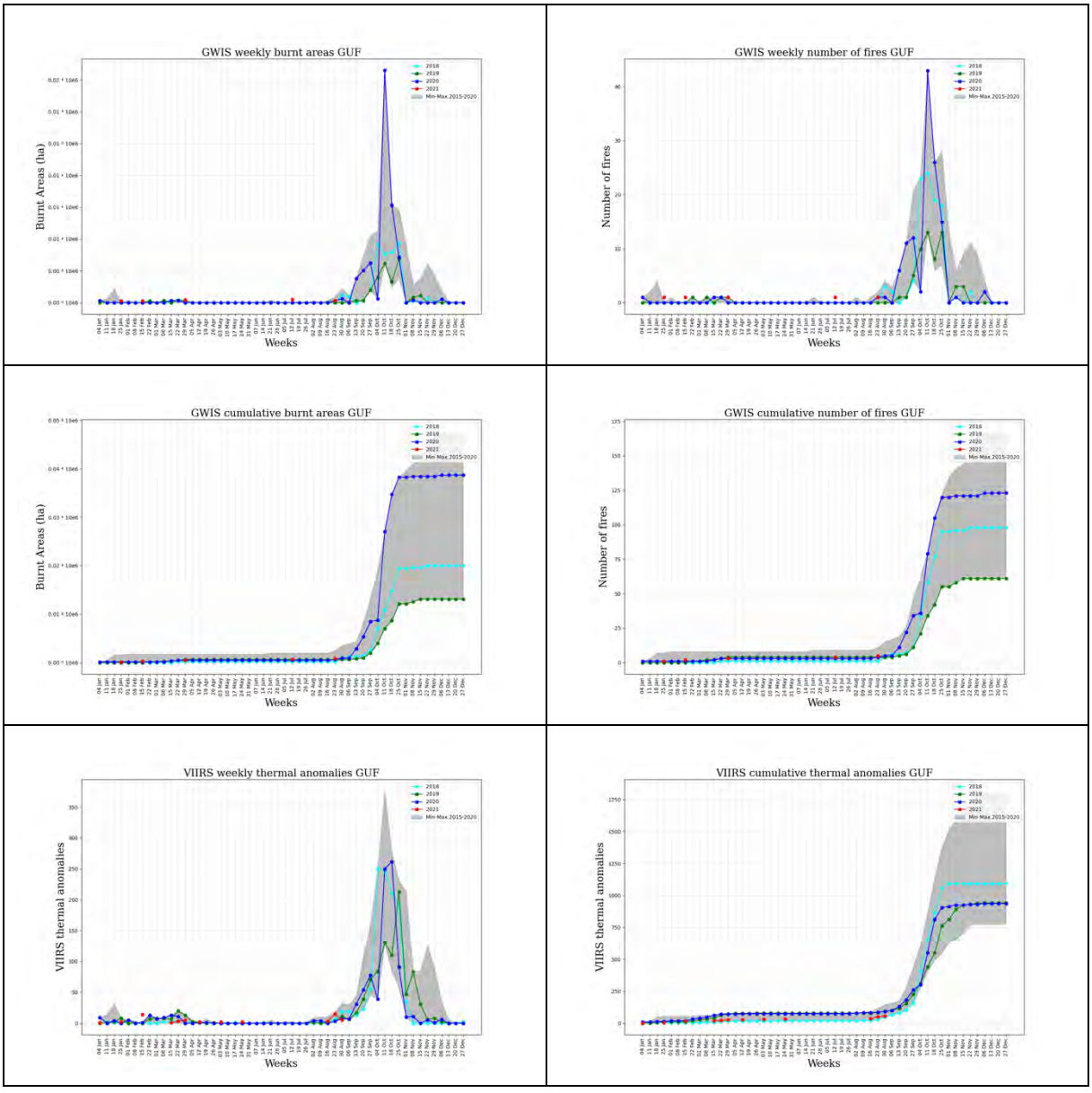


Figure 13. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

13 Wildfires in Guyana

Figure 14 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 61,285 ha burnt in Guyana since January 1 until September 5, 2021, with 2 fires recorded last week. The number of thermal anomalies until September 5, 2021 (1,704) shows a typical trend in the region as compared to the trends during previous years. 41 thermal anomalies were detected by VIIRS during the last week, which is similar to the values in the same week during previous years.

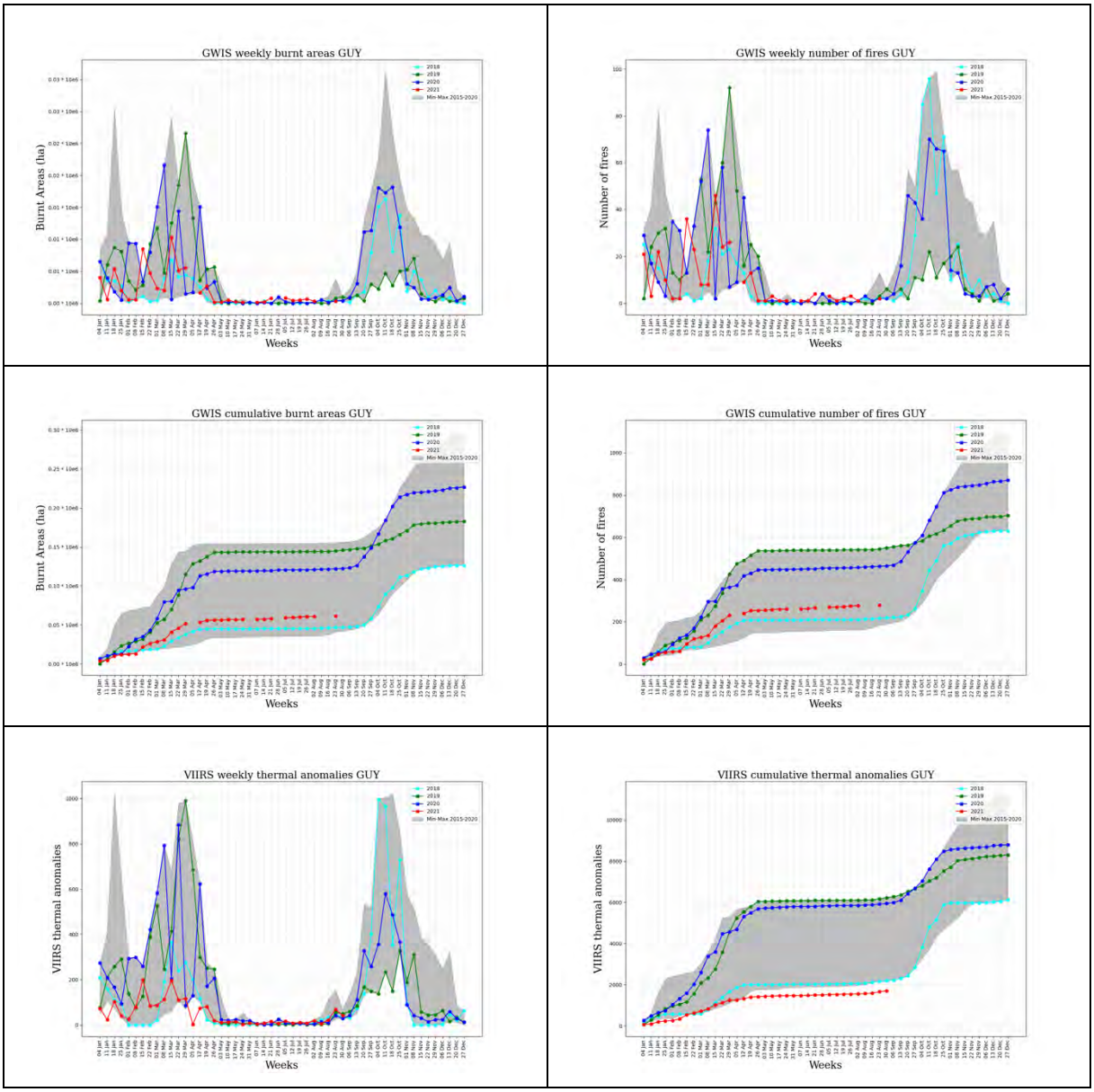


Figure 14. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

14 Wildfires in Suriname

Figure 15 shows the trends on the extent of burnt areas and the number of fires since January 1, 2021 produced by the Near-Real Time (NRT) fire analysis in GWIS. The last row shows the evolution of active hot spots (thermal anomalies) detected by the satellite sensor VIIRS. A total of 4533 ha burnt in Suriname since January 1 until September 5, 2021. One fire was recorded last week. The total number of fires since the beginning of the year is 21. The number of thermal anomalies until September 5, 2021 (132) shows a typical trend in the region. 2 thermal anomalies registered last week, increasing after the last week.

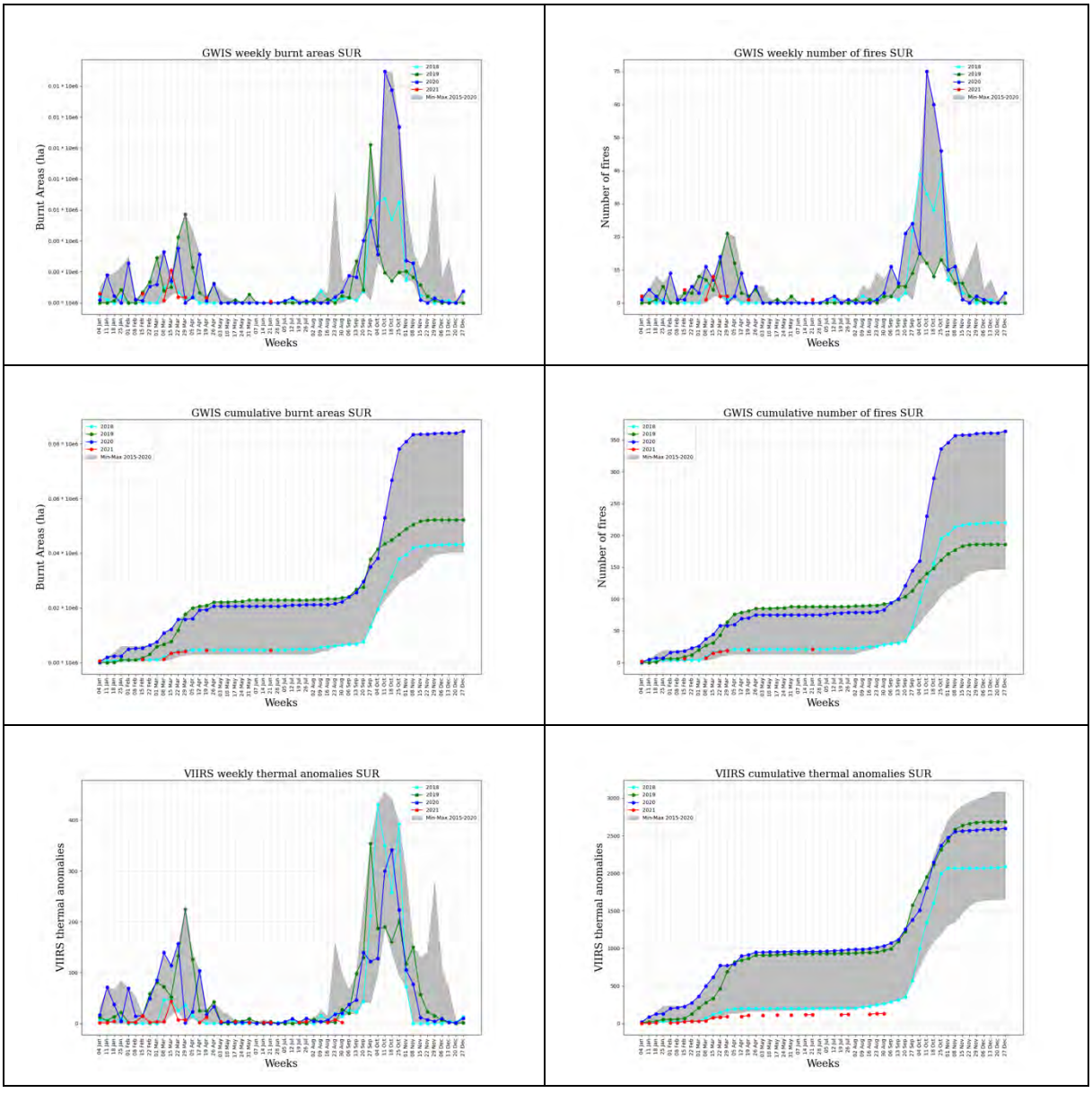


Figure 15. Trend of burnt areas, number of fires and thermal anomalies as compared to data in the last 6 years.

15 Fire danger and fire weather forecast in the Amazon region

This section provides information on the fire danger forecast in the Amazon region for the current week. High levels of fire danger facilitate fire ignitions and the propagation of ongoing fires. Figure 16 provides the average fire danger for the week of September 06 to September 12, 2021. This information is based on the daily fire danger forecast that is provided online in GWIS[3]. According to this forecast, it is expected that fire danger conditions will continue to be very high to extreme in the central and eastern part of Brazil and moderate to high in eastern and southwestern Bolivia, Paraguay and across Argentina.

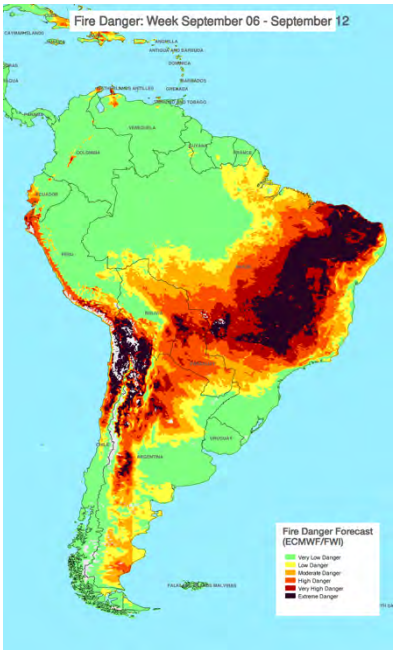


Figure 16. Average Fire danger forecast. Week, September 06 - September 12, 2021.

The weekly fire weather forecast of temperature and precipitation anomalies for this week is presented in Figure 17. Above average temperatures are forecasted for areas of southeastern Brazil, Bolivia, Paraguay and southern Argentina. Below average temperatures are forecasted in northern Brazil and central Argentina. The models estimate an above average precipitation rates for next week mainly in western Brazil, central Argentina and Peru. Below average precipitation is foreseen mainly in southern part of Brazil.

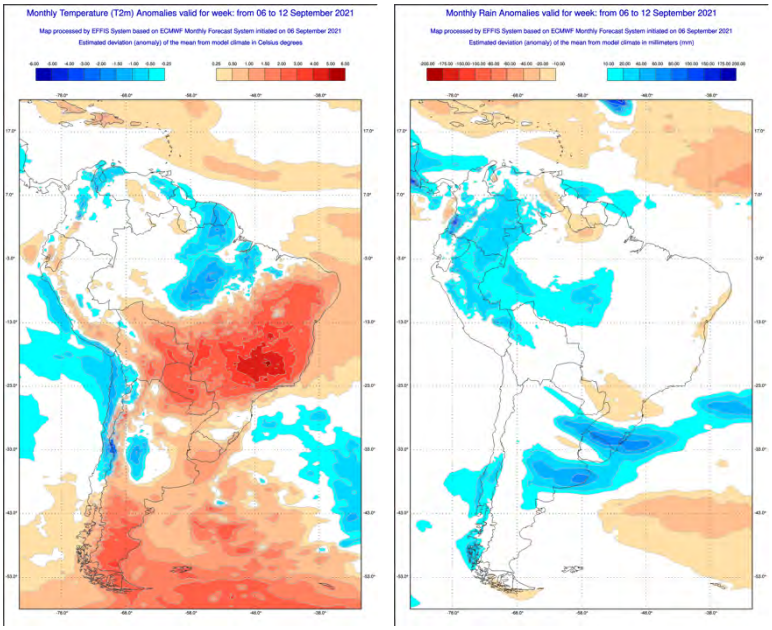


Figure 17. Fire weather anomalies of the current week, September 6- September 12, 2021.

[3] https://gwis.jrc.ec.europa.eu/static/gwis_current_situation/public/index.html

16 Monthly analysis (up to 5 September 2021)

16.1 Brazilian Legal Amazon (BLA)

Figure 18 shows the spatial distribution of burnt areas for 2021 mapped by the Near-Real Time (NRT) process in GWIS in the Brazilian Legal Amazon region, within Brazil.

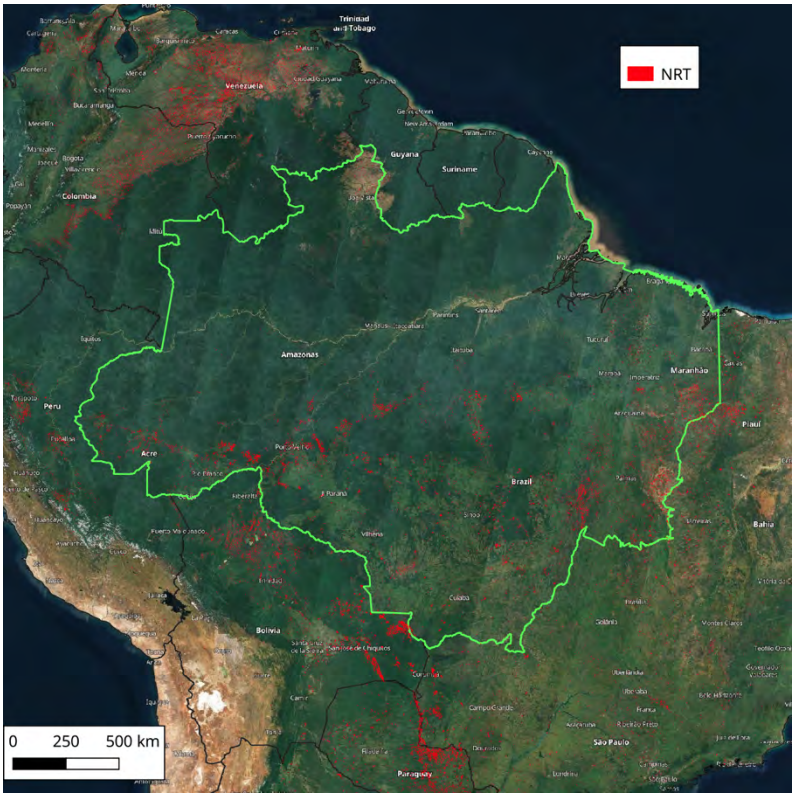
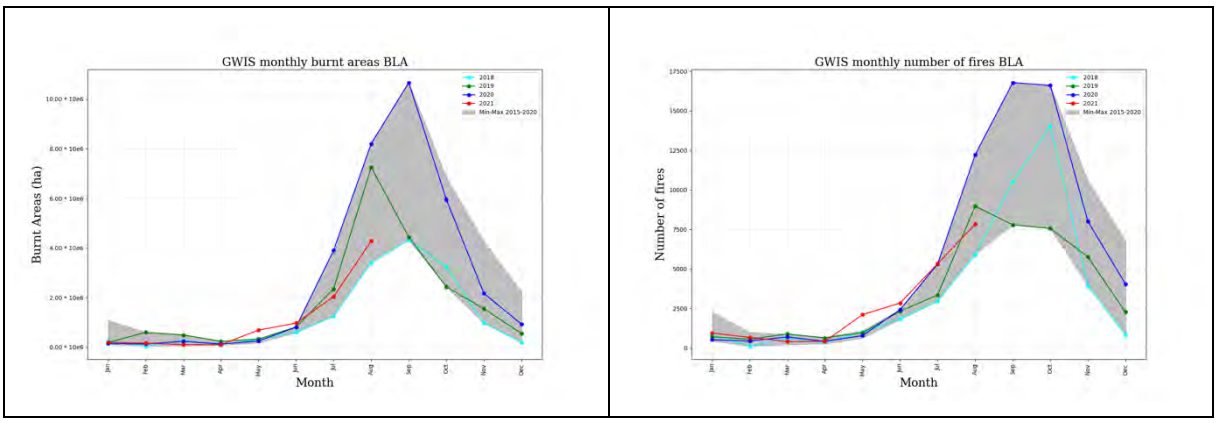


Figure 18. GWIS burnt areas for 2021 in Brazilian Legal Amazon (BLA). Burnt areas until 5 September.

The 2021 fire season in the BLA was following similar trends of the last year until August as shown in Figure 19. However, this year the burnt area up to August is lower than the last two years. Besides, the numbers of fires are below values of 2020. The current season is behaving quite like the average of the previous 6 years.



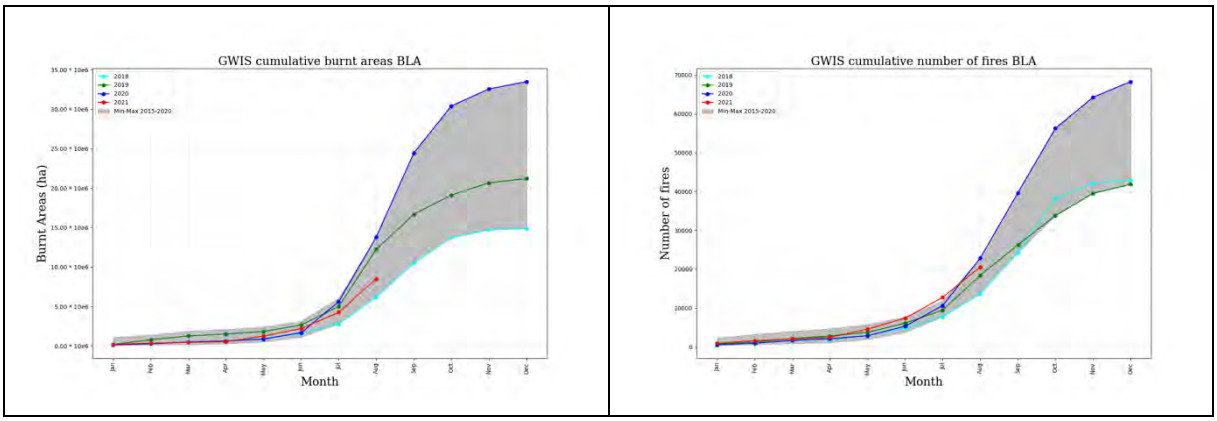


Figure 19. Trend of burnt areas and number of fires as compared to data in the last six years.

There is a considerable increase of the percentage of forest landcover burnt in August compared to previous months as shown in Figure 20.

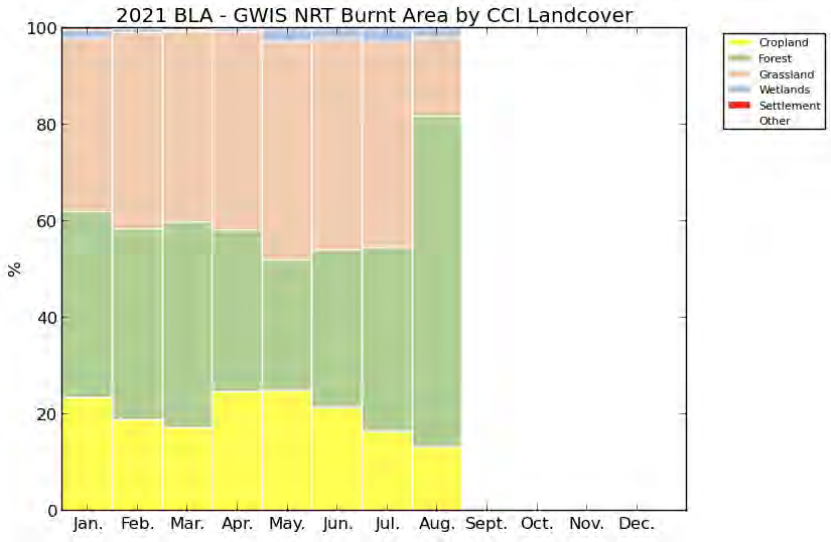


Figure 20. Monthly percentage of burnt land cover for the year 2021.

In terms of the number of active fire spots retrieved directly by the VIIRS sensor, 2021 presents a number of active fire spots up to August 2021 lower than 2019 and 2020 as shown in Figure 21. This type of data is often reported in the media.

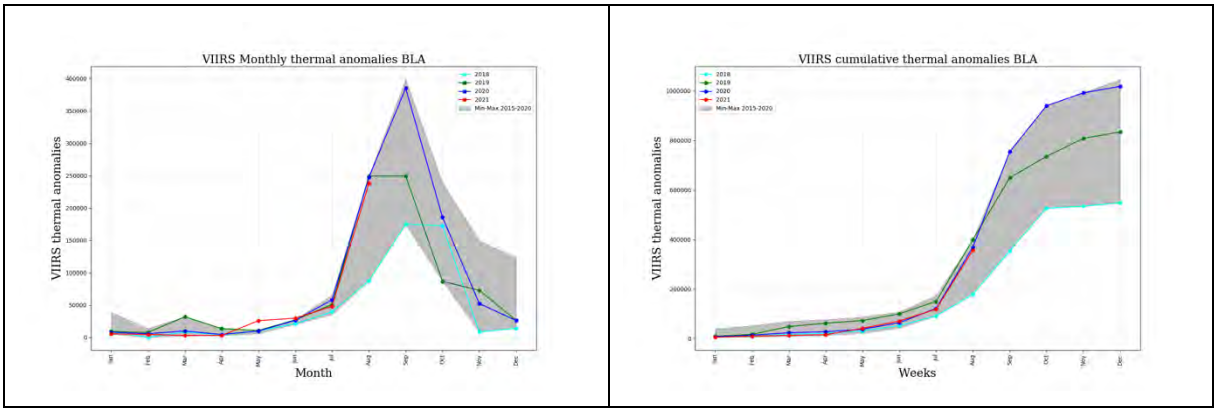


Figure 21. Trend of VIIRS thermal anomalies compared to data in the last six years.

16.2 Brazil

The spatial extent of the burnt areas mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 22. Although most of the burnt areas occurred in the center of the country (Cerrado Biome), the fire activity and resulting burnt areas are widespread from north to south, including the humid Amazon Forest.

Figure 22. GWIS burnt areas for 2021 in Brazil. Burnt areas until 5 September.

The 2021 fire season in Brazil is showing similar behavior to the average of the last 6 years. However, the number of fires depicts a small shift to the left, some of the fires started earlier than they used to do. Also, the average fire size this year is below the average for all the months except for May, June and August, being close to the minimum of the last 6 years. That fact could point out to controlled fires that might have taken place one month in advance compared to previous years.

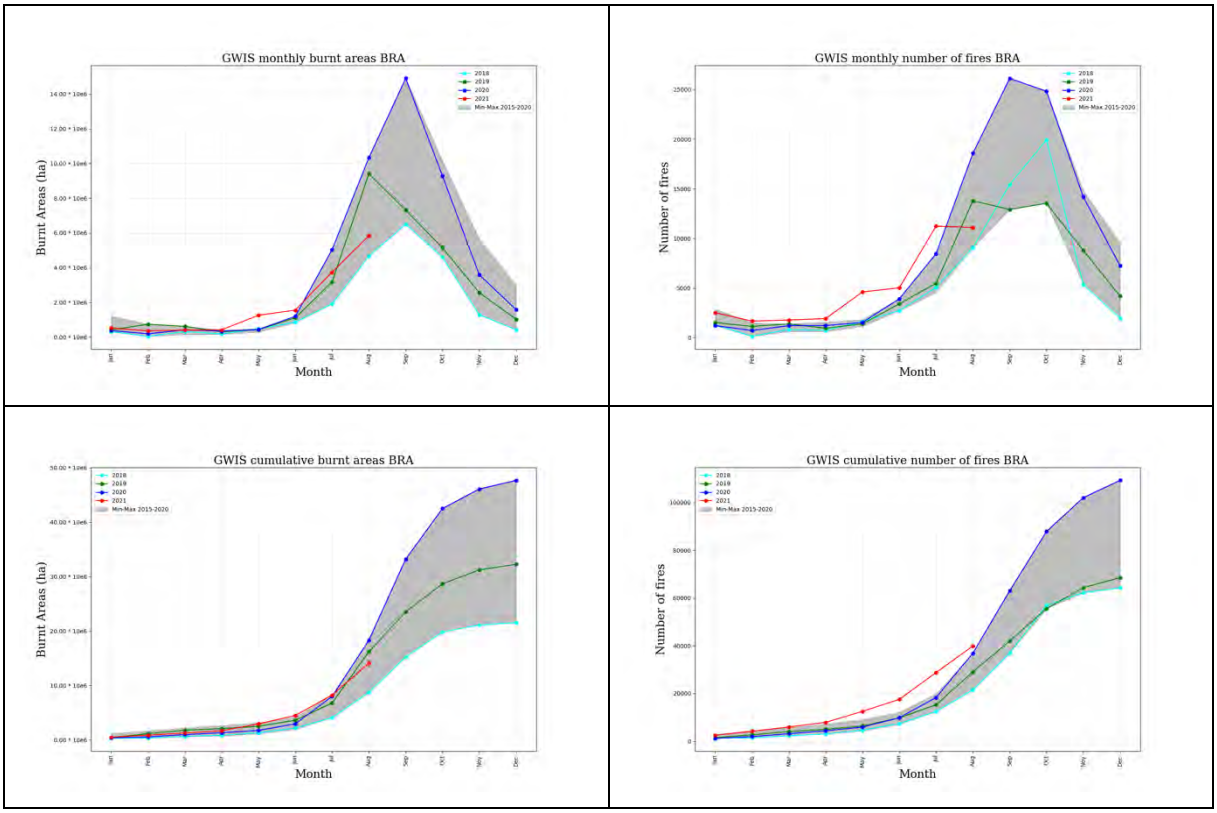


Figure 22. Trend of burnt areas and number of fires as compared to data in the last six years.

Figure 23 shows an increase of the percentage of forest land cover burnt in August, but not so remarkable as in BLA.

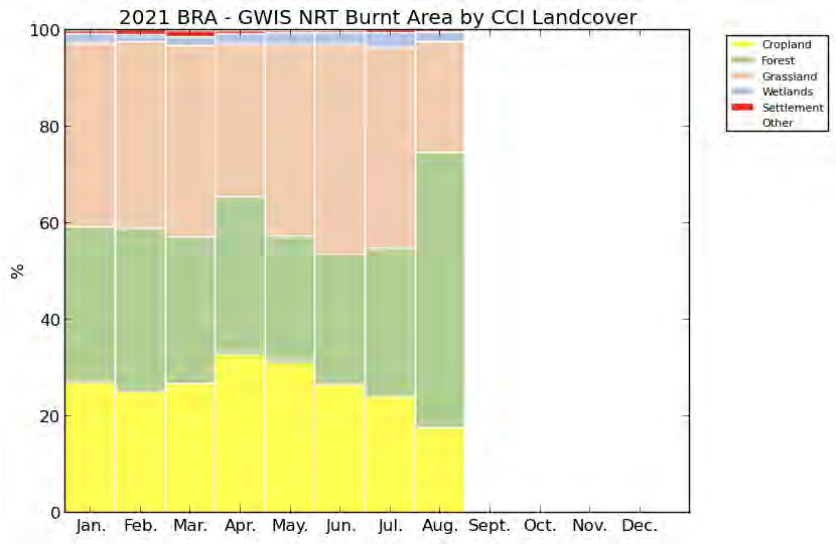


Figure 23. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents a number of active fire spots in the period between January and August above the values of 2020 as shown in Figure 24. This type of data is those often reported in the media, which point out to a higher number of fires this year as compared to past years.

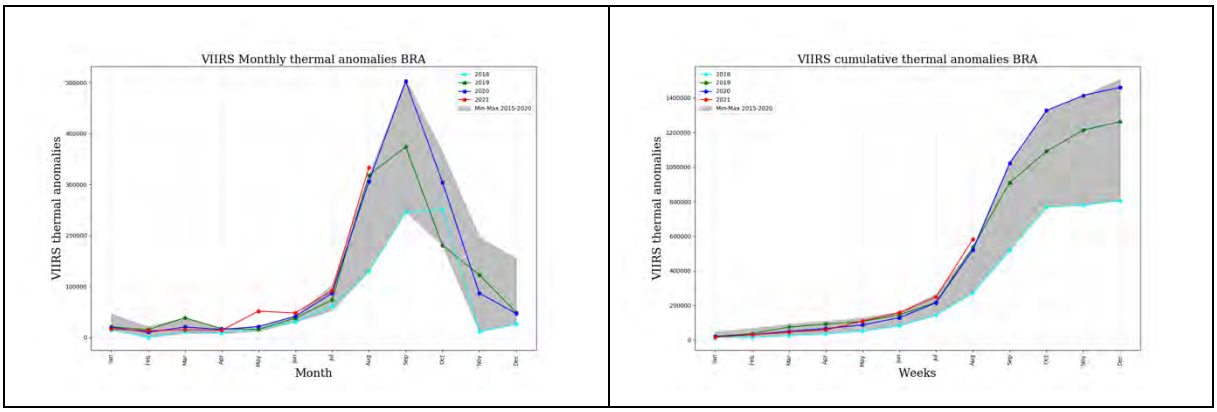


Figure 24. Trend of VIIRS thermal anomalies compared to data in the last six years

16.3 Bolivia

The spatial distribution of burnt areas in Bolivia in 2021 mapped by the Near-Real Time (NRT) process in GWIS is shown in Figure 23. In Bolivia the 2021 fire season is following a different trend to the past five years with a moderated burnt area but a greater number of fires than the average. Bolivia has 3.31 Mha of burnt area and 6845 fires up to August.

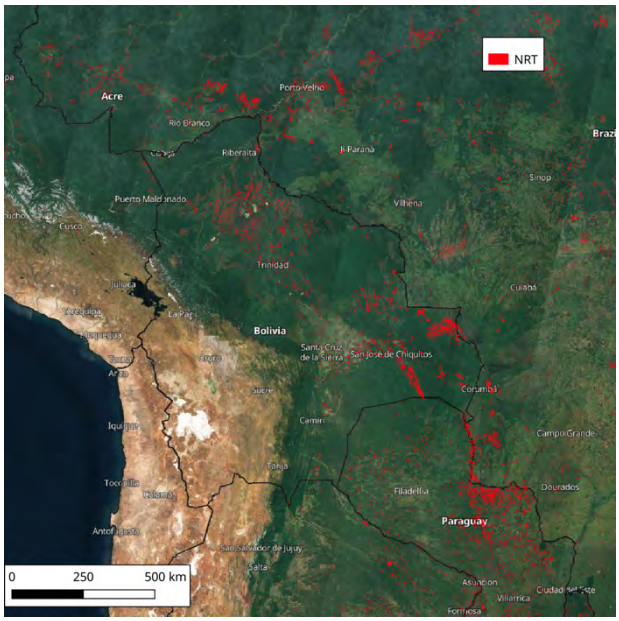


Figure 25. GWIS burnt areas for 2021 in Bolivia. Burnt areas until 5 September.

Considering 2019 a completely anomalous year because of the huge fire in Santa Cruz, this year is burning a considerable surface compared to the last 3 years. Besides, the number of fires stabilized entering inside the maximum and minimum area of the previous years.

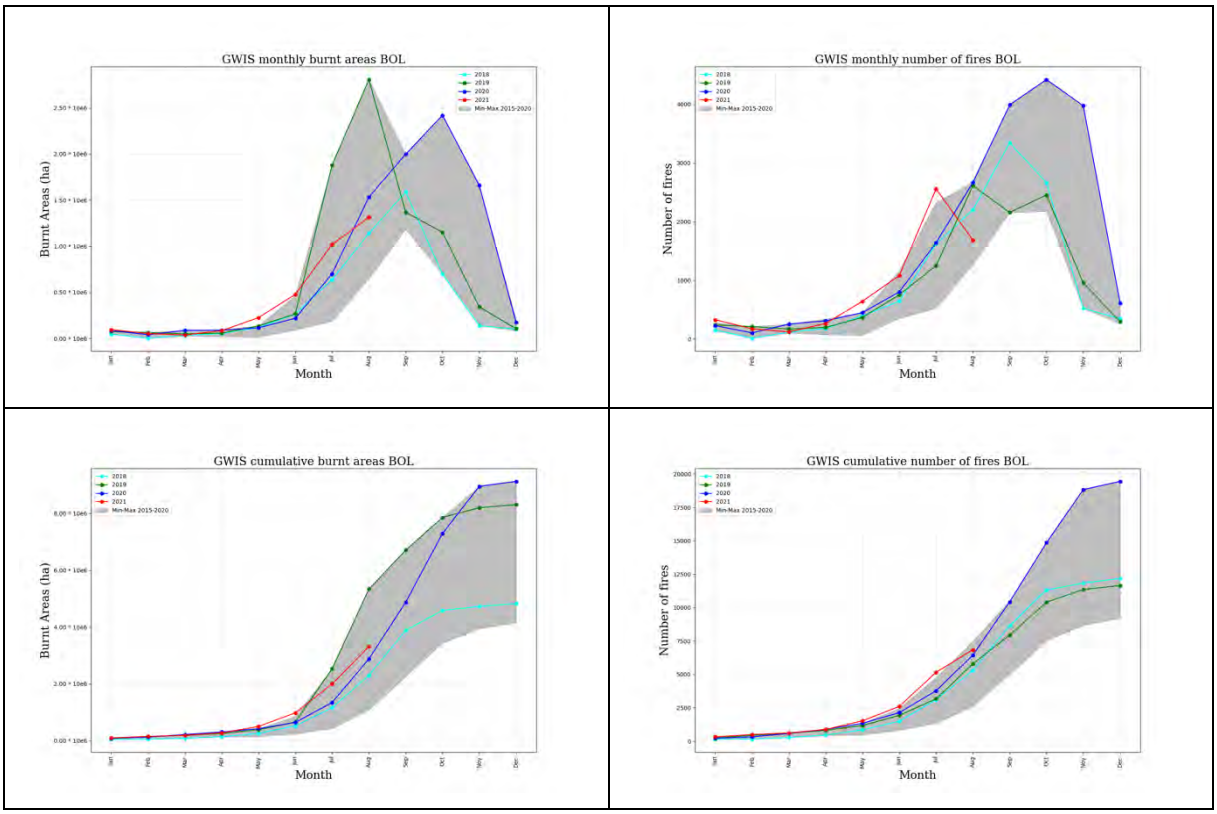


Figure 26. Trend of burnt areas and number of fires as compared to data in the last six years.

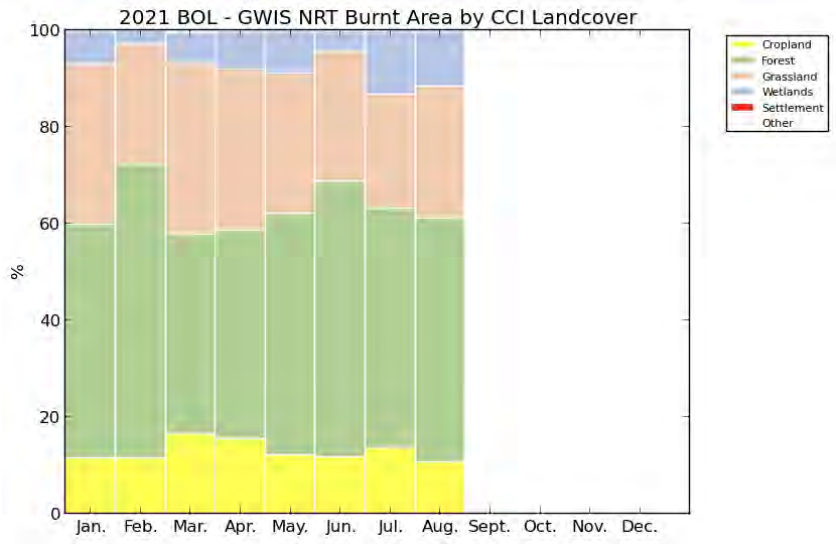


Figure 27. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents a number of active fire spots above 2019 and 2020 between May and June as shown in Figure 28. This type of information is often reported in the media.

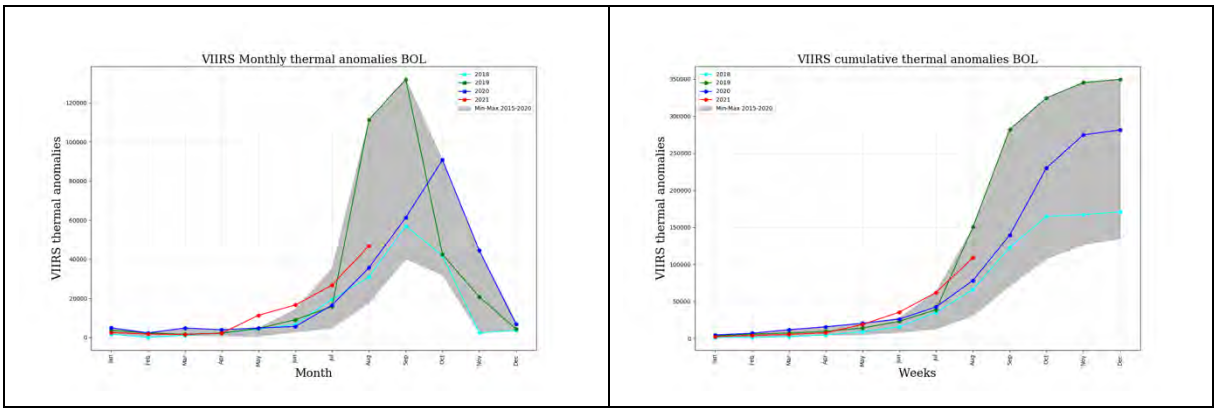


Figure 28. Trend of VIIRS thermal anomalies compared to data in the last six years.

16.4 Colombia

The spatial distribution of burnt areas in Colombia in 2021 mapped by the Near-Real Time (NRT) process in GWIS is shown in Figure 29.

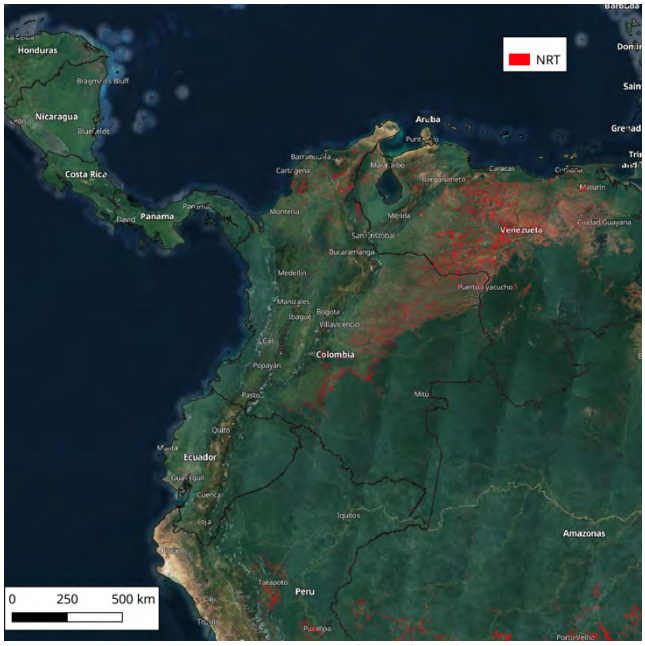


Figure 29 GWIS burnt areas for 2021 in Colombia. Burnt areas until 5 September.

The current fire season has been less severe than last year in terms of burnt area but with a higher number of fires. About 2.77 Mha of burnt areas have been mapped in the country until end of August. Figure 30 shows how the number of fires is considerable higher compared with the period 2015-2020. The fires are mainly located on the center and south-west of the country, a region designated as “Llanos”, a complex savanna ecosystem which undergoes periodic, human-induced and natural biomass burning during the dry season, usually between November and April.

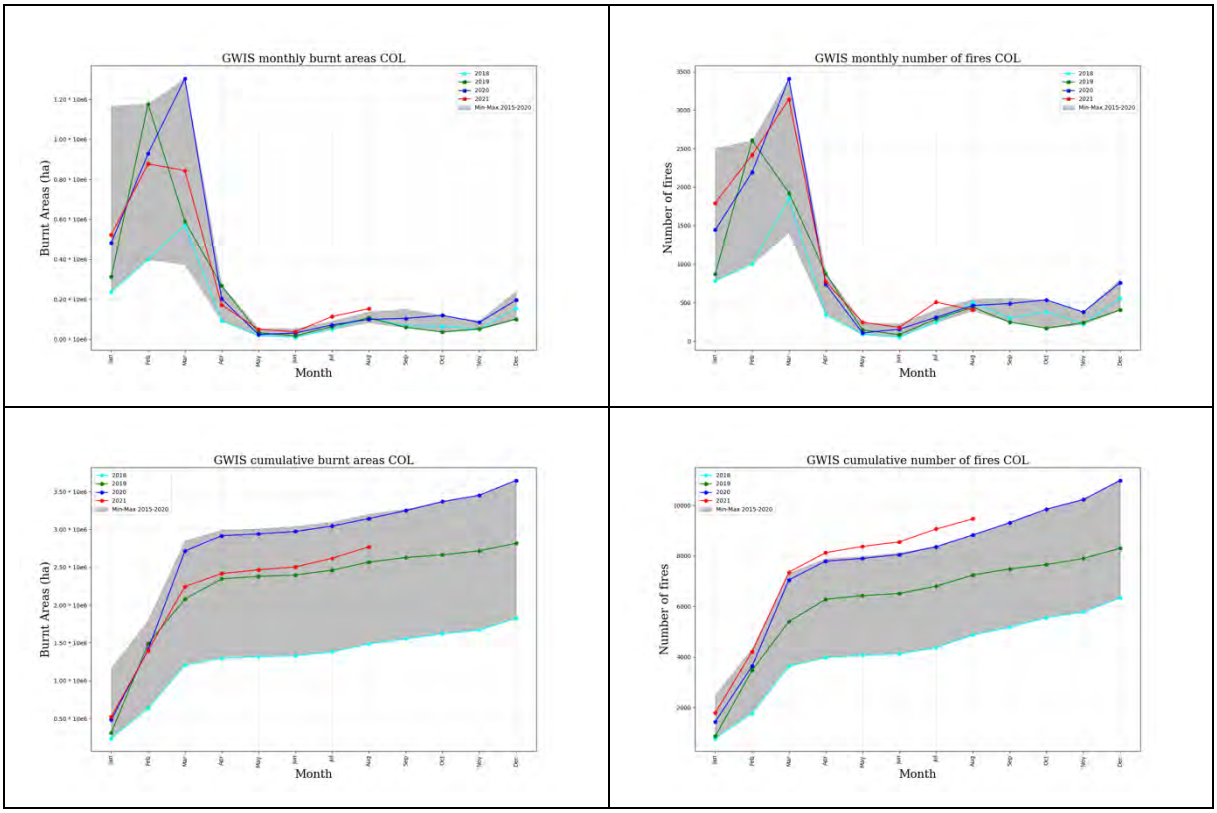


Figure 30. Trend of burnt areas and number of fires as compared to data in the last six years.

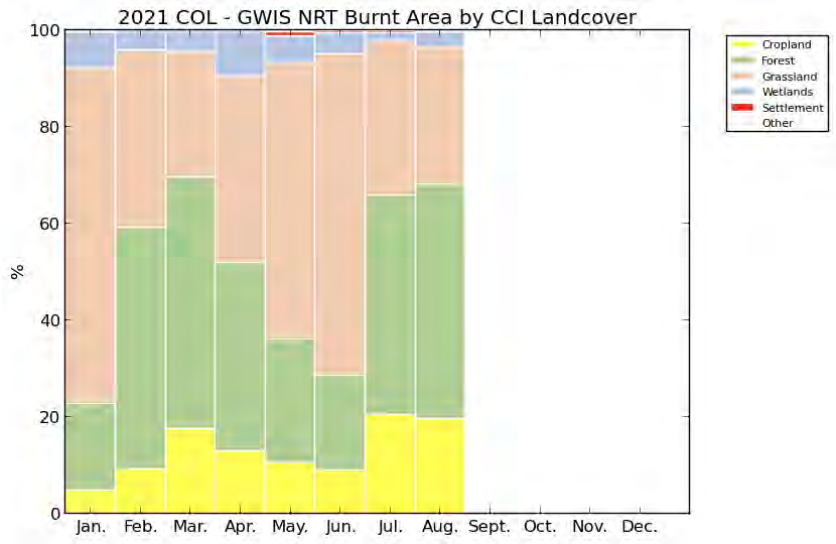


Figure 31. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents a number of active fire spots in the period between January and August lower than the previous two years as shown in Figure 32. This type of information is often reported in the media.

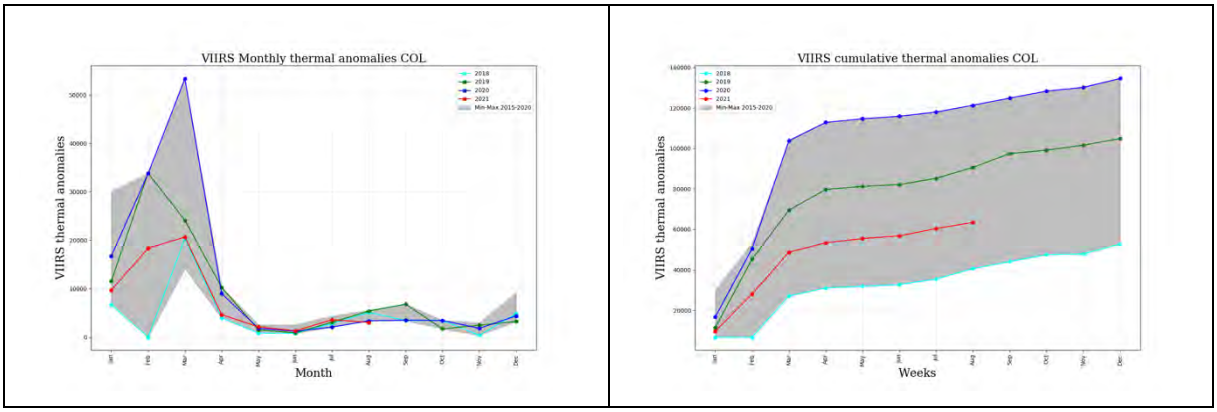


Figure 32. Trend of VIIRS thermal anomalies compared to data in the last six years.

16.5 Paraguay

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 33.

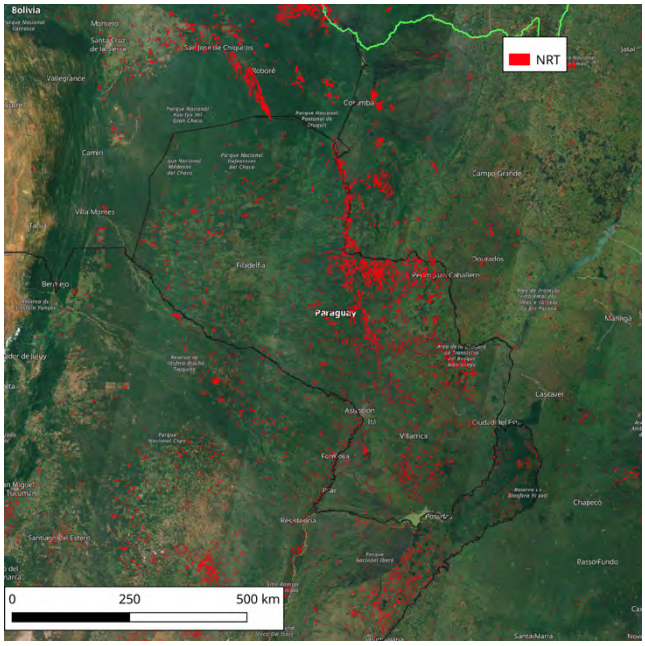


Figure 33. GWIS burnt areas for 2021 in Paraguay. Burnt areas until 5 September.

The 2021 fire season in Paraguay is showing a typical behavior compared to the previous 6 years, but with lower values than in 2020 (Figure 34). In July, the number of fires and burnt areas increased, reaching maximum values. In August, the number of fires decreased but the burnt area has been still increasing at a lower rate compared to previous years in the same month. The average fire size reached the maximum value of the last 6 years in August.

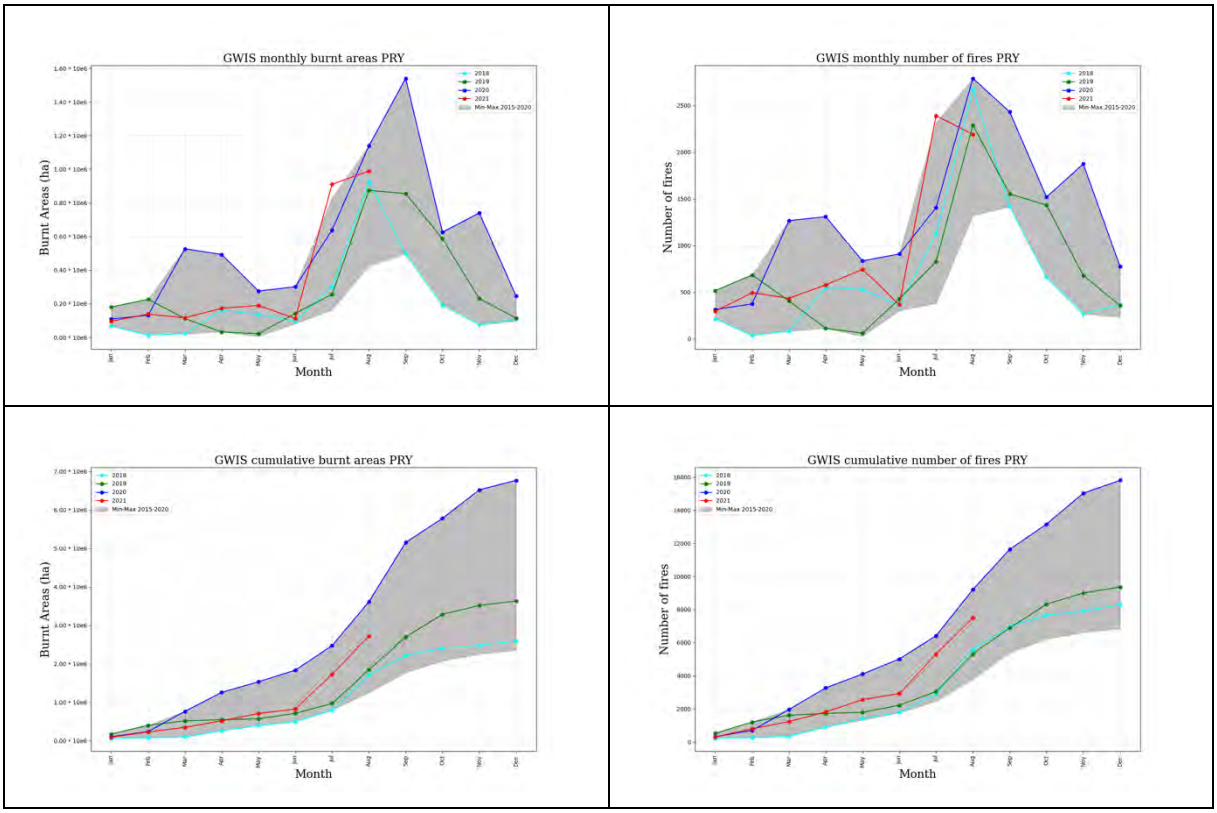


Figure 34. Trend of burnt areas and number of fires as compared to data in the last six years.

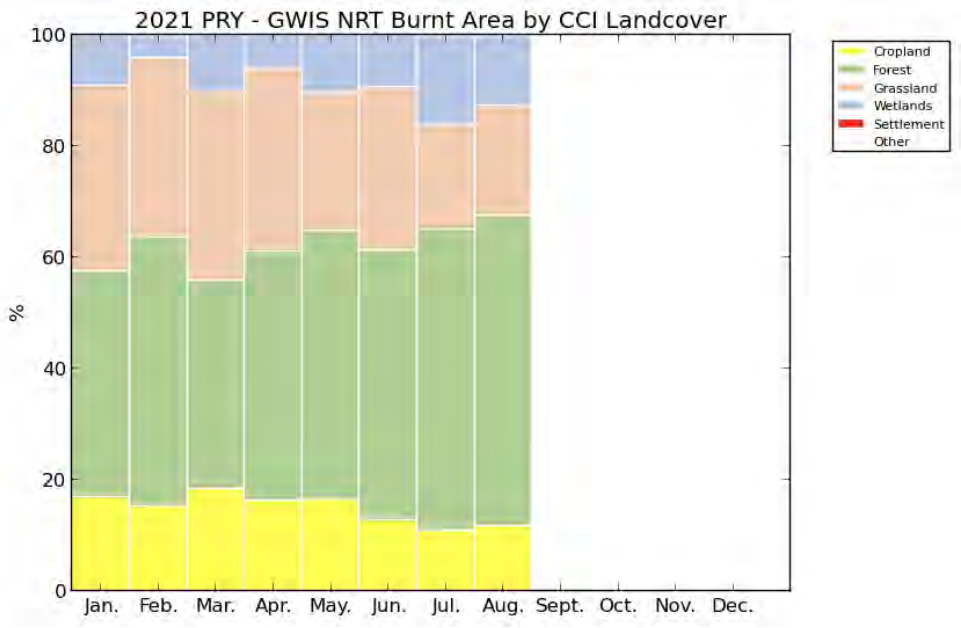


Figure 35. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same typical trend of the burned area and number of fires shown in Figure 36, with the highest number of active fire spots detected in August in the last 6 years. This type of information is often reported in the media.

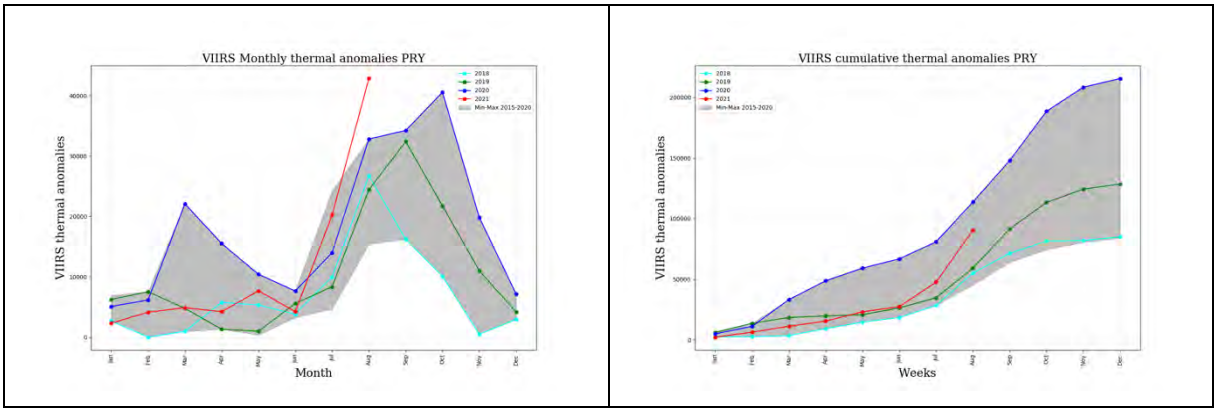


Figure 36. Trend of VIIRS thermal anomalies compared to data in the last six years.

16.6 Peru

The spatial extent of the burnt areas in the country in 2021 mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 37.

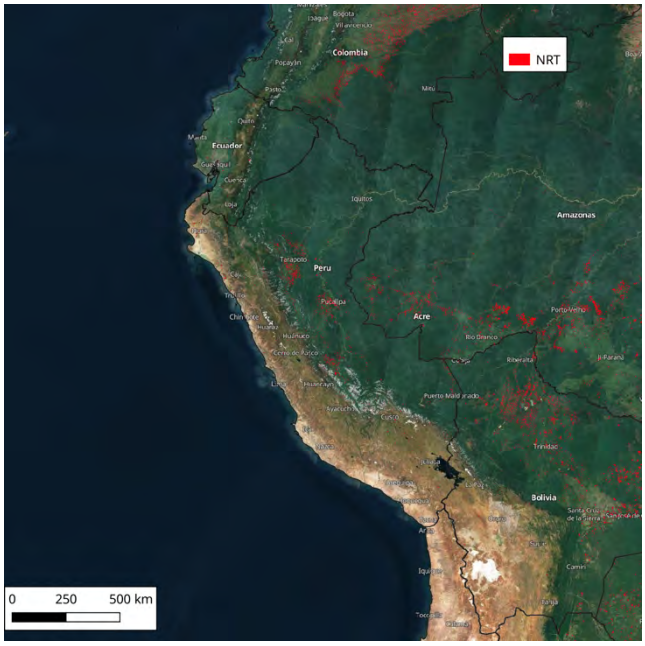


Figure 37. GWIS burnt areas for 2021 in Peru. Burnt areas until 5 September.

Peru in 2021 present similar values of burnt area of 2020. It is worth to mention that the burnt area data for Peru are subject to higher uncertainty than in other countries due to the mapping of small fires in large areas for long time periods.

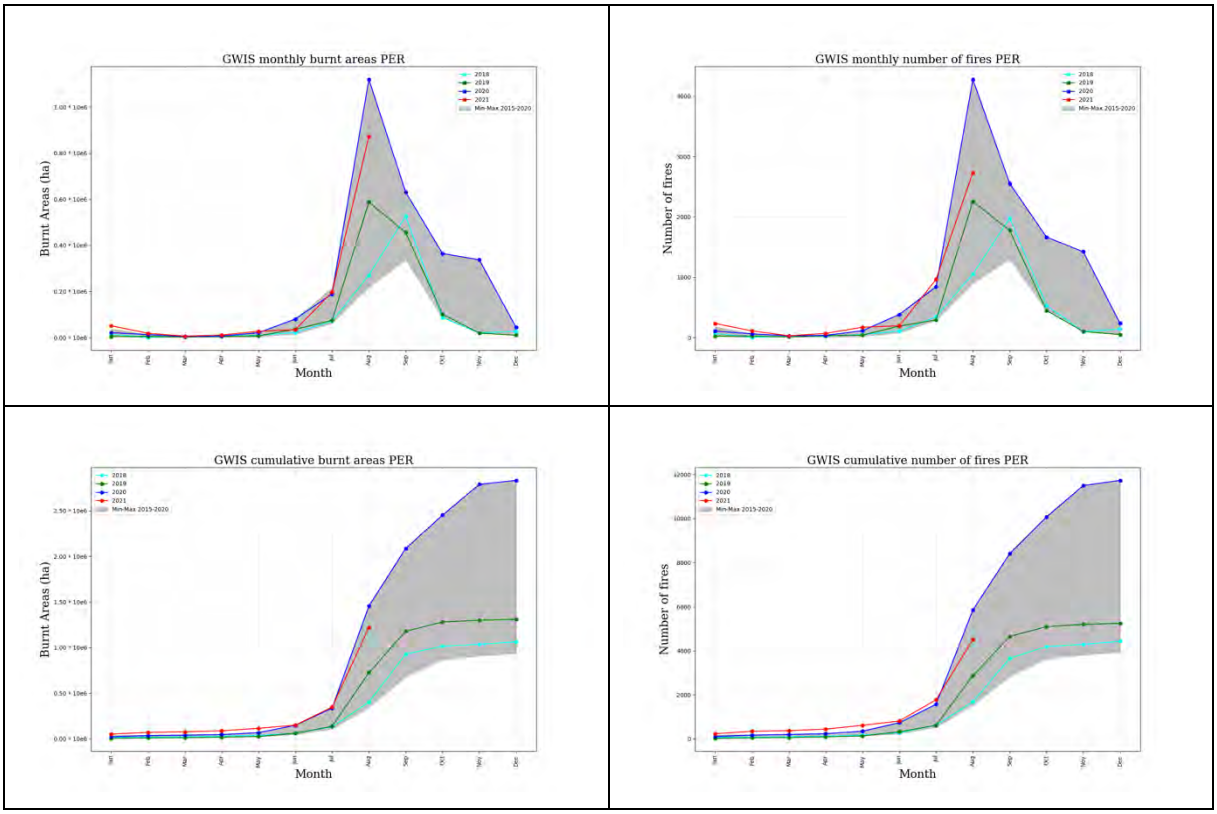


Figure 37 bis. Trend of burnt areas and number of fires as compared to data in the last six years.

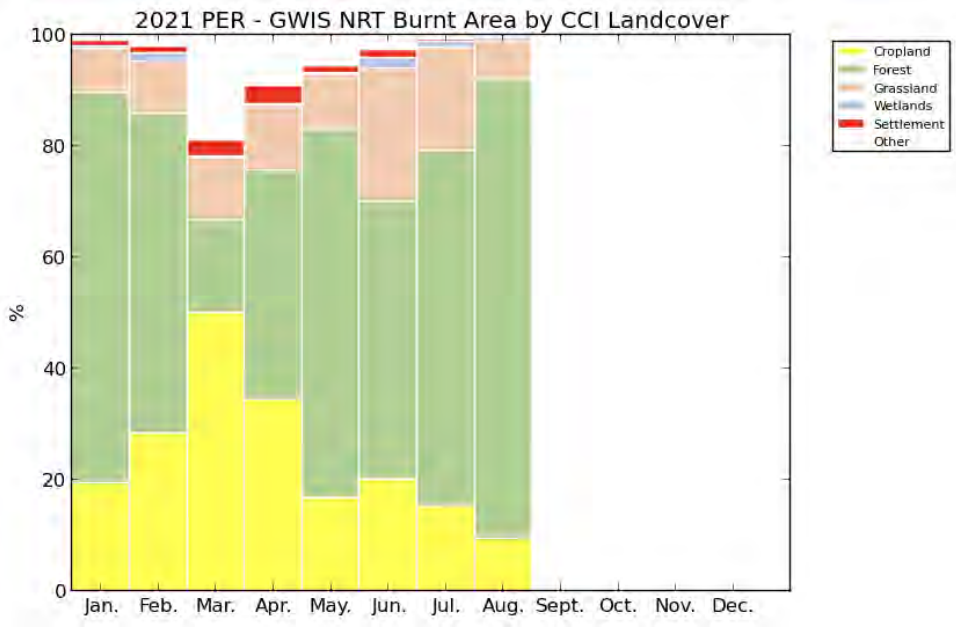


Figure 38. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same increasing trend seen in the number of fires shown in Figure 37, with a number of active fire spots in the first eight months of the year below the values of 2020 as shown in Figure 38. This type of information is often reported in the media.

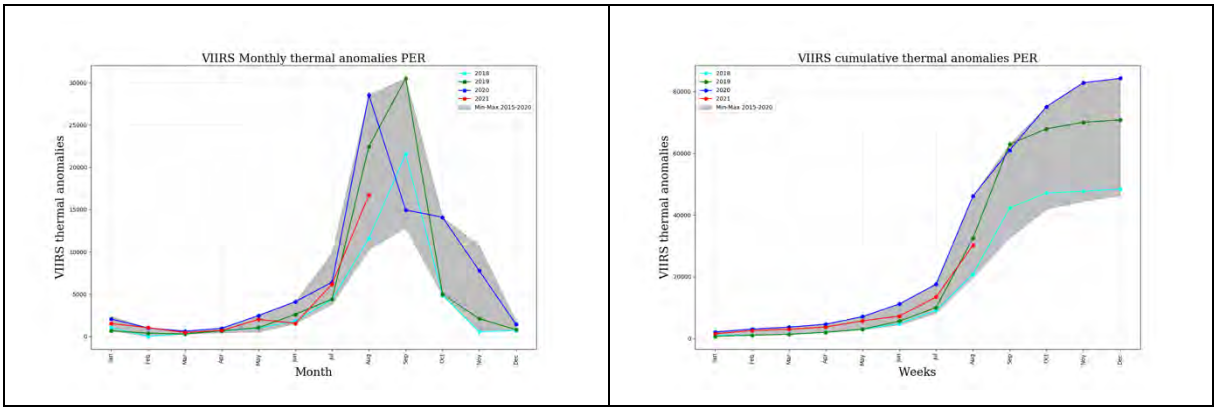


Figure 38 bis. Trend of VIIRS thermal anomalies compared to data in the last six years.

16.7 Venezuela

In 2021, wildfires in Venezuela spread over the central and northern areas of the country, with very large fires on the west of the country, such as those on the west side of Maracaibo Lake. (Figure 39). This region is part of the designated “Llanos”, a complex savanna ecosystem sharing the border with Colombia, where it undergoes periodic, human-induced and natural biomass burning during the dry season, usually between November and April.

Figure 39. GWIS burnt areas for 2021 in Venezuela. Burnt areas until 5 September.

The current fire season for 2021 is below the last two years in all terms, see Figure 40. The total burnt area is above 2018, and considerably lower than that of the 2019 and 2020 fire season. Until August, almost 4.27 Mha of burnt areas have been mapped by GWIS in the region.

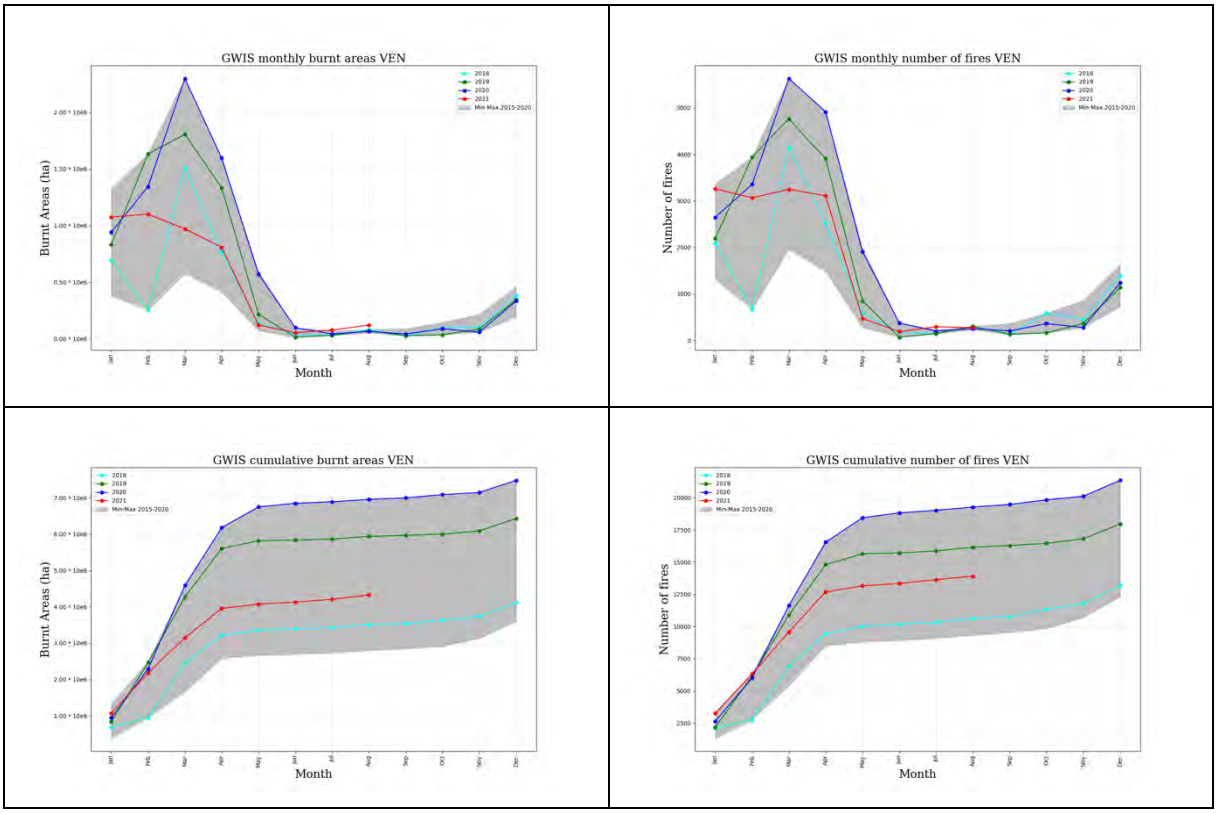


Figure 40. Trend of VIIRS thermal anomalies compared to data in the last six years.

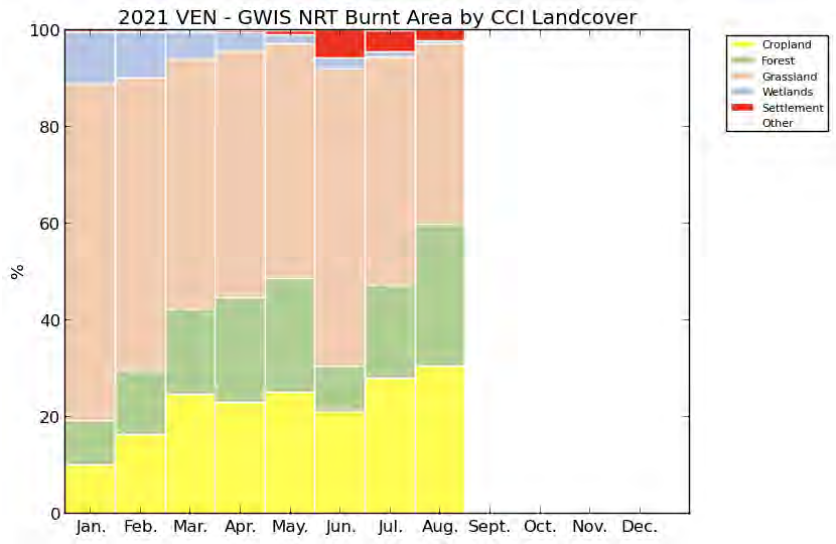


Figure 41. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same trend of the burned area and number of fires shown in Figure 41, with a number of active fire spots in the first eight months of the year below of those recorded in 2019 and 2020 as shown in Figure 42. This type of information is often reported in the media.

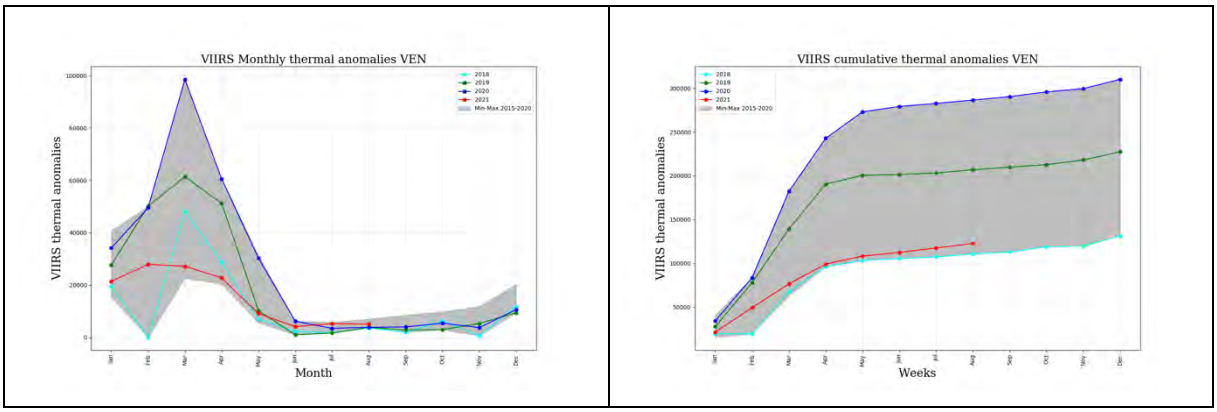


Figure 42. Trend of burnt areas and number of fires as compared to data in the last six years.

16.8 Chile

In 2021, wildfires in Chile spread mainly in the central and southern part of the country (Figure 43).

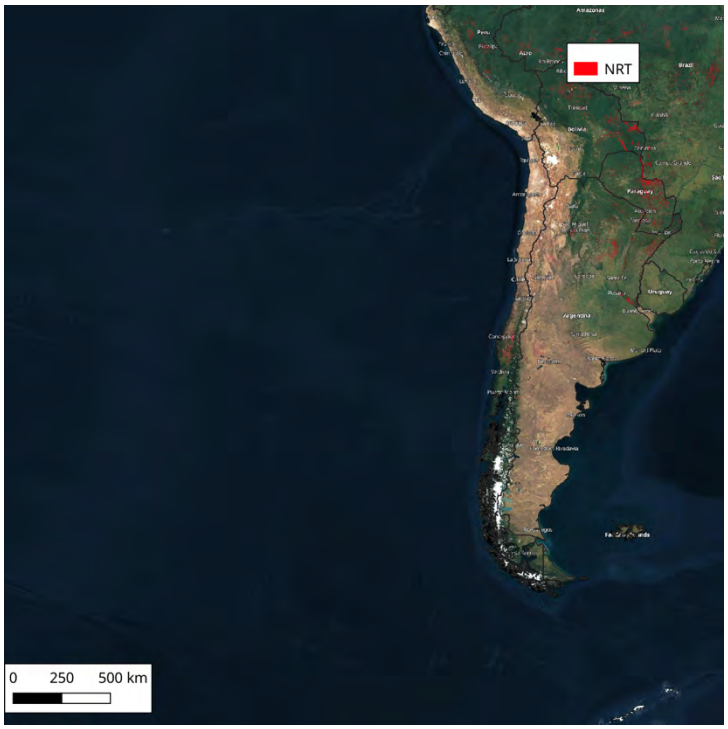


Figure 43. GWIS burnt areas for 2021 in Chile. Burnt areas until 5 September.

The current fire season for 2021 is above the last two years in all terms, see Figure 44. Until August, around 428 thousand ha of burnt areas have been mapped by GWIS in the region. The current year can be considered as quite severe since 2017 was a complete anomaly. During 2021, the accumulated number of fires reached the maximum of the last 6 years despite the total burnt area is far below the maximum.

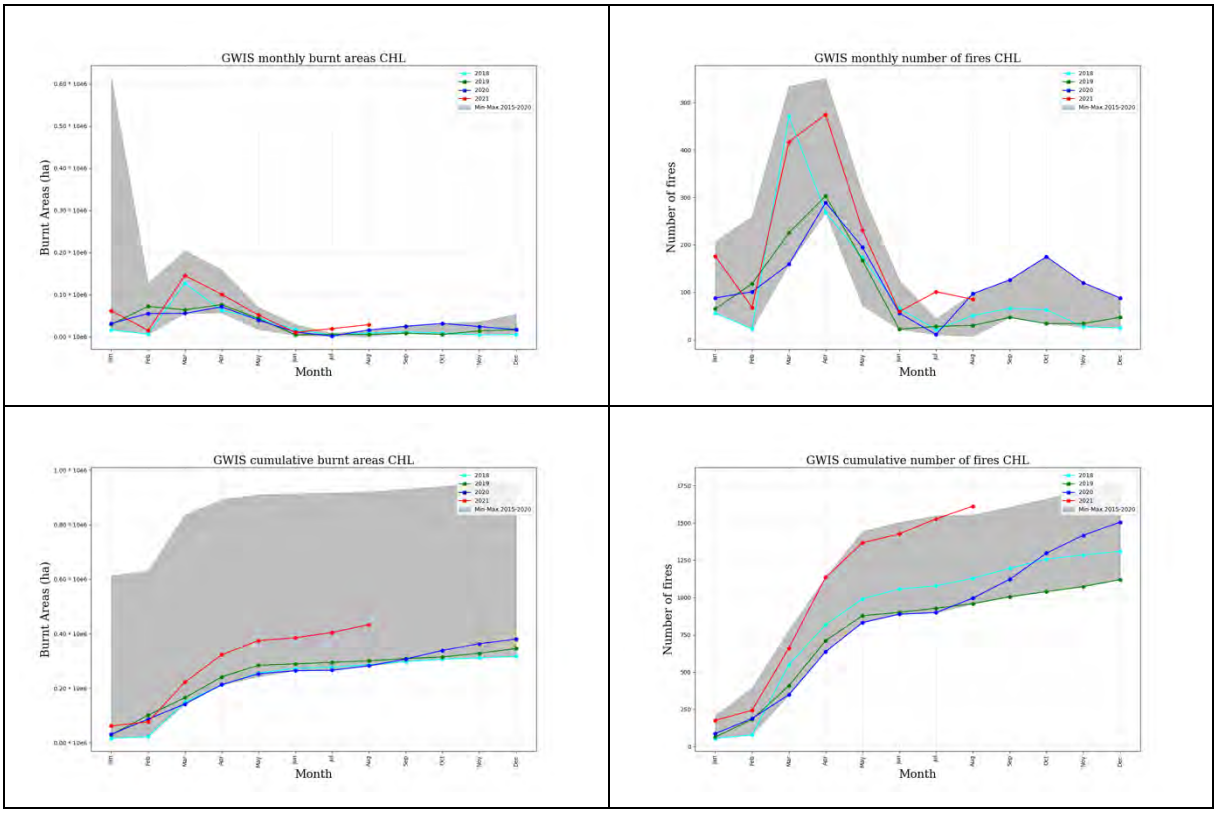


Figure 44. Trend of VIIRS thermal anomalies compared to data in the last six years.

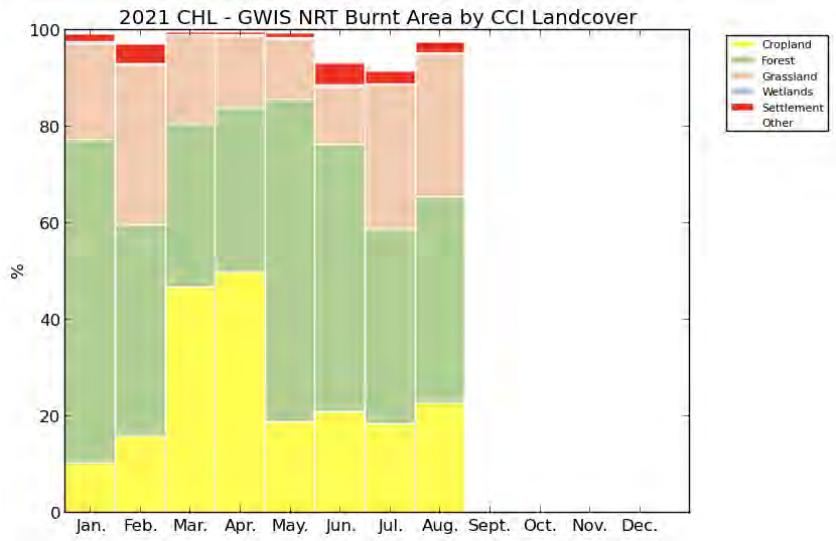


Figure 45. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents lower values than 2019 and 2020 for the first eight months as shown in Figure 46. This type of information is often reported in the media.

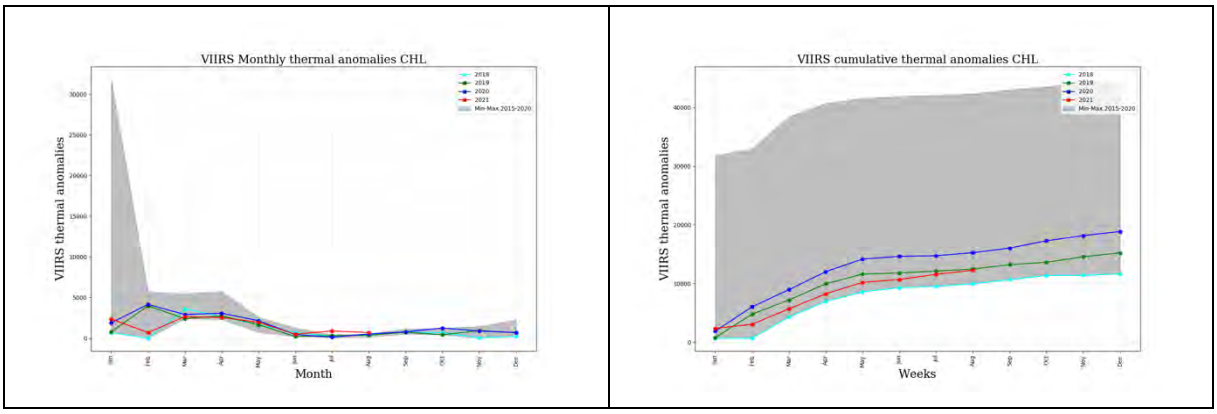


Figure 46. Trend of burnt areas and number of fires as compared to data in the last six years.

16.9 Argentina

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 47

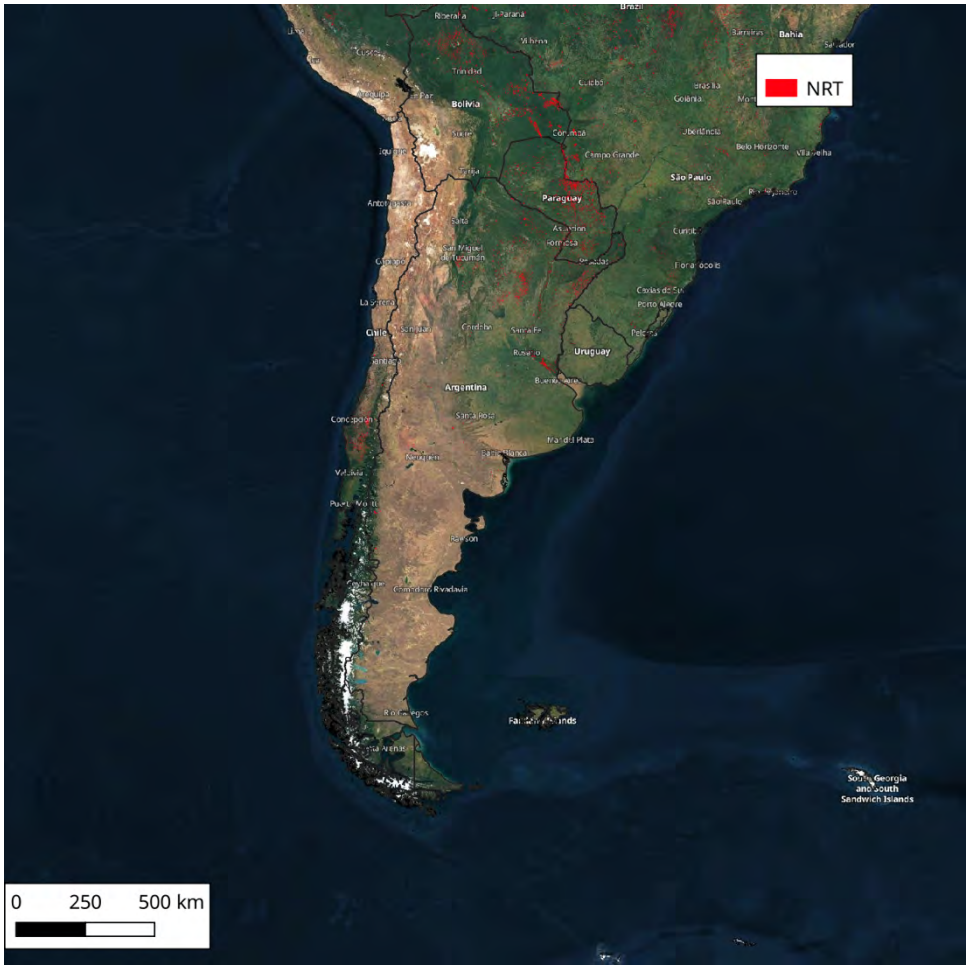
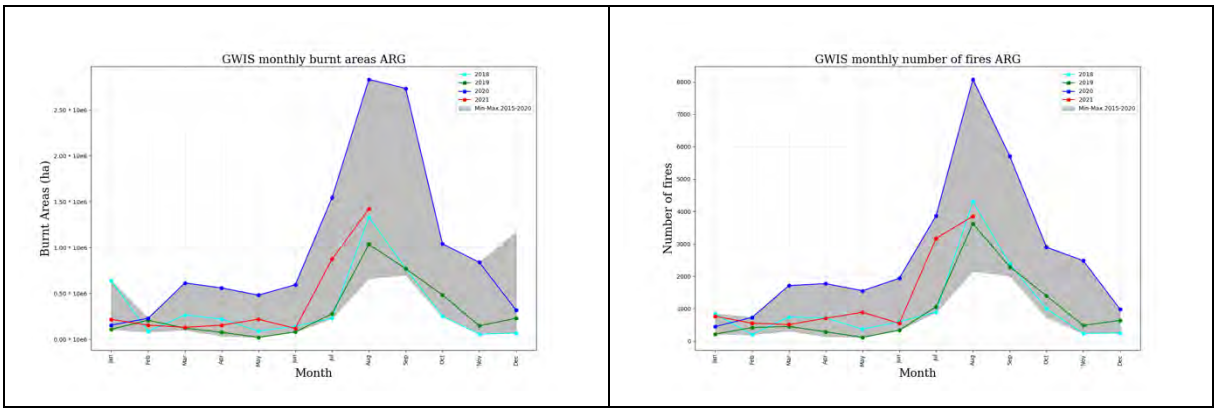


Figure 47. GWIS burnt areas for 2021 in Argentina. Burnt areas until 5 September.

The current fire season for 2021 is below than 2020 in all terms, see Figure 48. Until August, more than 3.26 Mha of burnt areas have been mapped by GWIS in the region. The current fire season is following the usual fire season for Argentina, however, burnt area and number of fires are quite high and it would be the higher without considering year 2020.



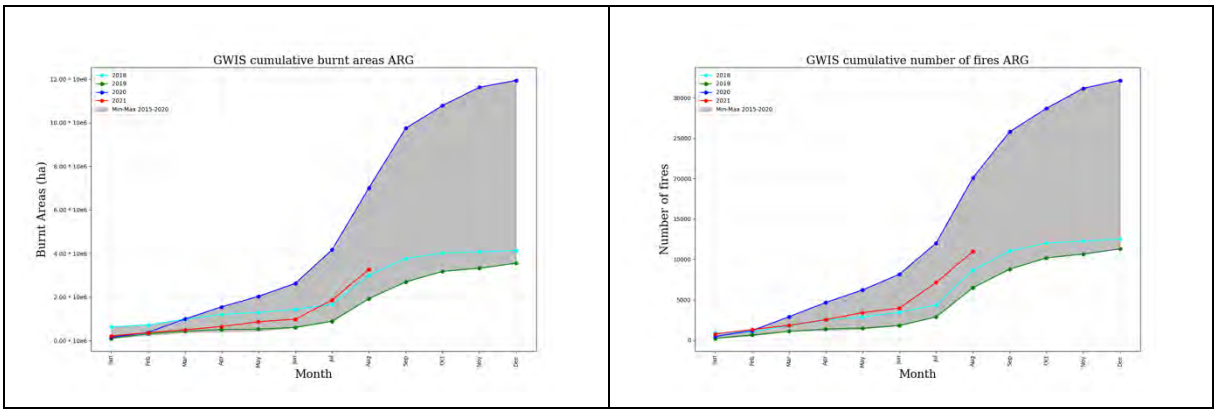


Figure 48. Trend of VIIRS thermal anomalies compared to data in the last six years.

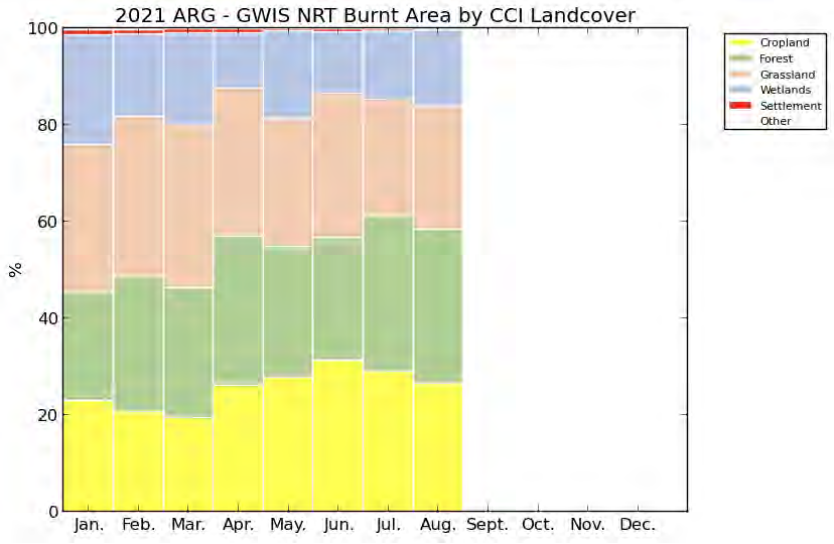


Figure 49. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same trend of the burned area and number of fires shown in Figure 41, with a number of active fire spots in the first eight months of the year below of those recorded in 2020 as shown in Figure 50. This type of information is often reported in the media.

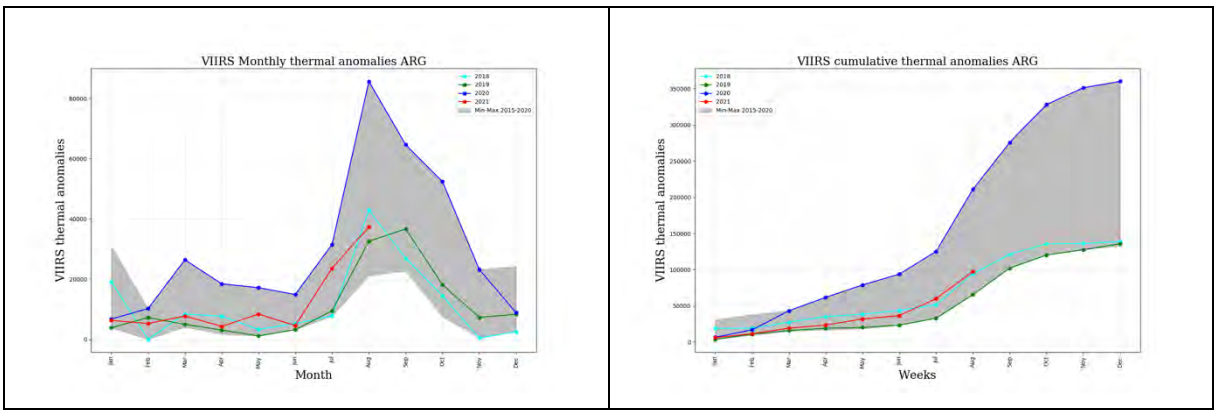


Figure 50. Trend of burnt areas and number of fires as compared to data in the last six years.

16.10 Ecuador

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 51

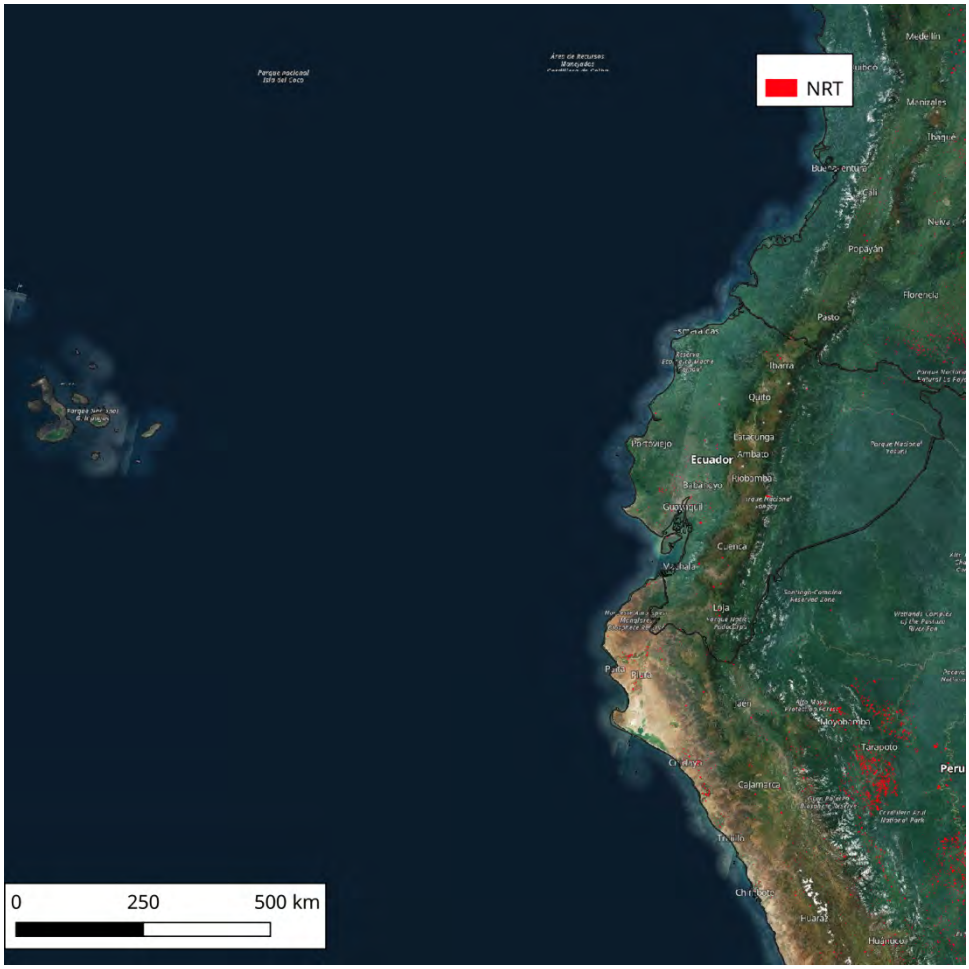
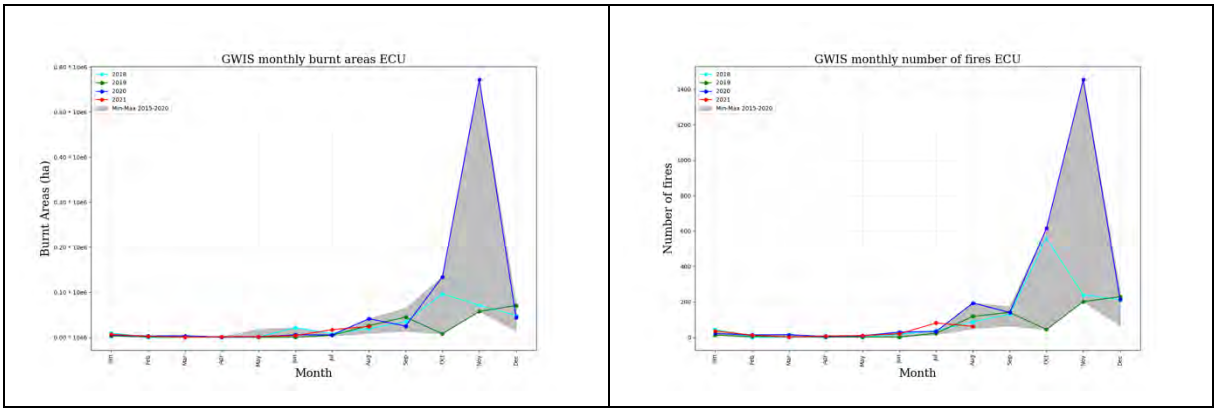


Figure 51. GWIS burnt areas for 2021 in Ecuador. Burnt areas until 5 September.

The current fire season for 2021 is slightly above the last two years in all terms, see Figure 52. Until August, a total of 57 thousand ha of burnt areas have been mapped by GWIS in the region. It is worth mentioning that the fire season is still about to start.



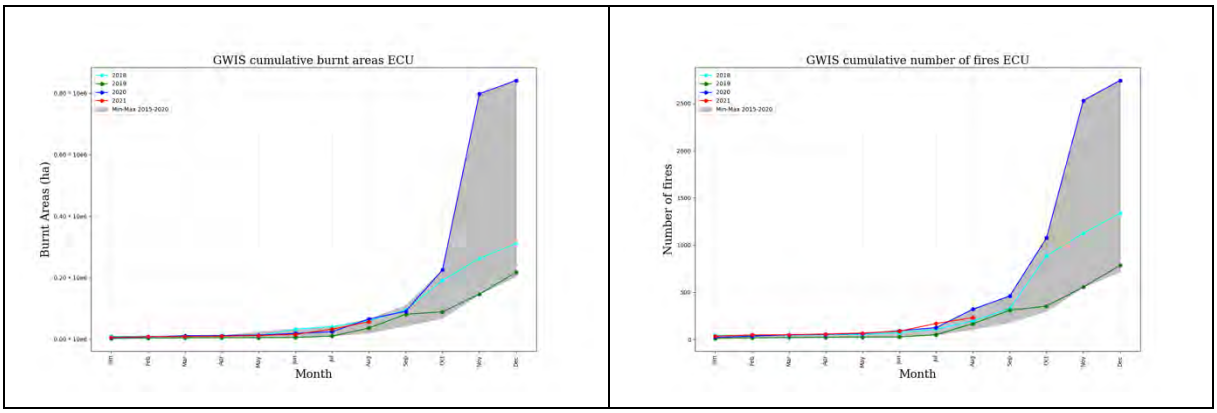


Figure 52. Trend of VIIRS thermal anomalies compared to data in the last six years.

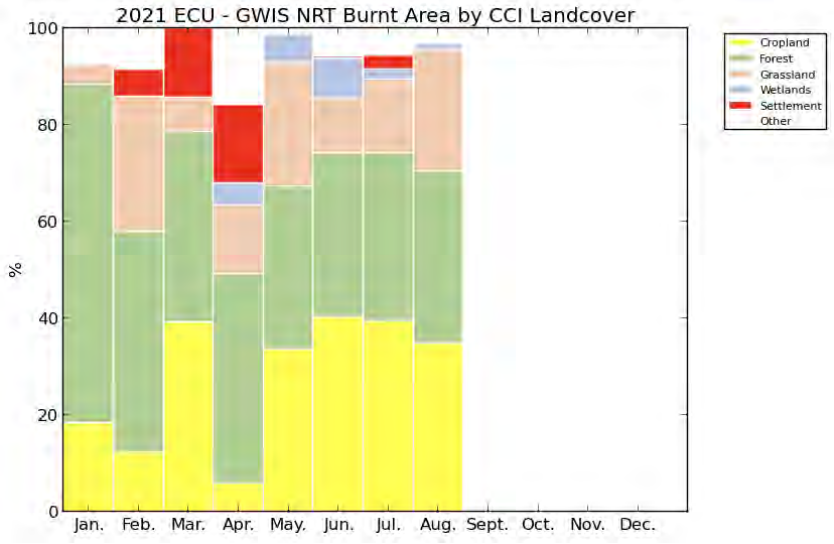


Figure 53. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same trend of the burned area and number of fires shown in Figure 52, with a number of active fire spots in the first eight months of the year below of those recorded in 2020 as shown in Figure 54. This type of information is often reported in the media.

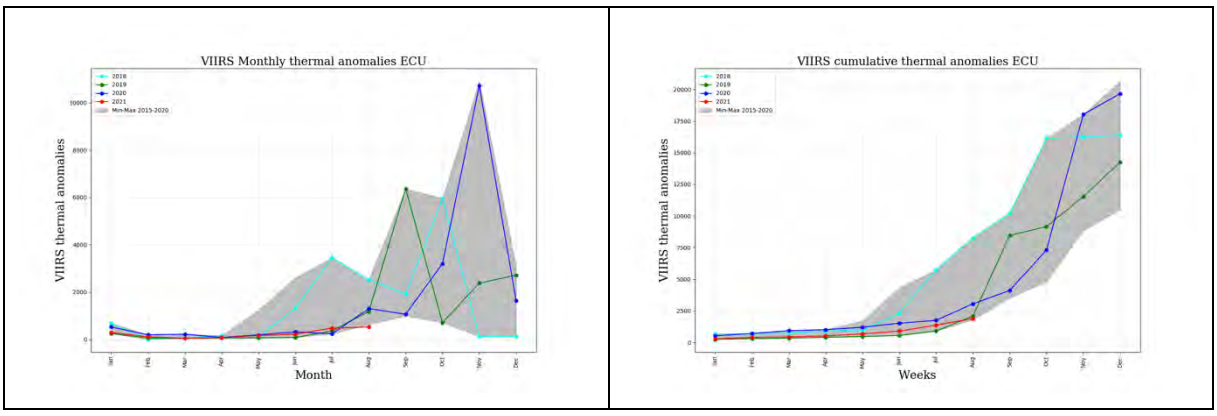


Figure 54. Trend of burnt areas and number of fires as compared to data in the last six years.

16.11 Uruguay

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 55

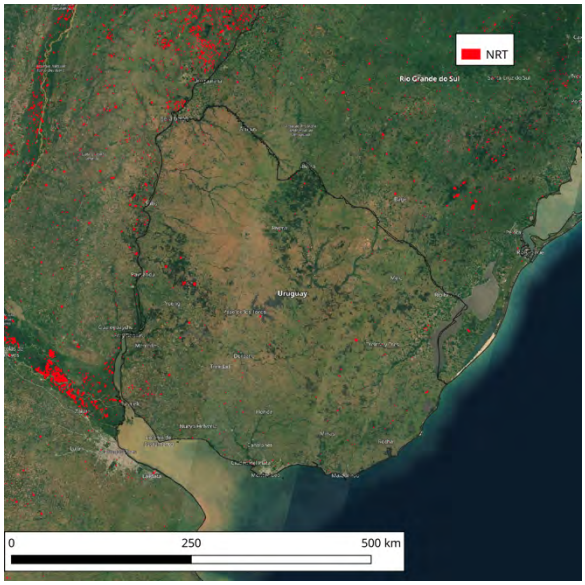


Figure 55. GWIS burnt areas for 2021 in Uruguay. Burnt areas until 5 September.

The current fire season for 2021 is below than 2020, see Figure 56. The total burnt area is above 2019, and considerably lower than of 2020 fire season. By August, almost 50 thousand ha of burnt areas have been mapped by GWIS in the region.

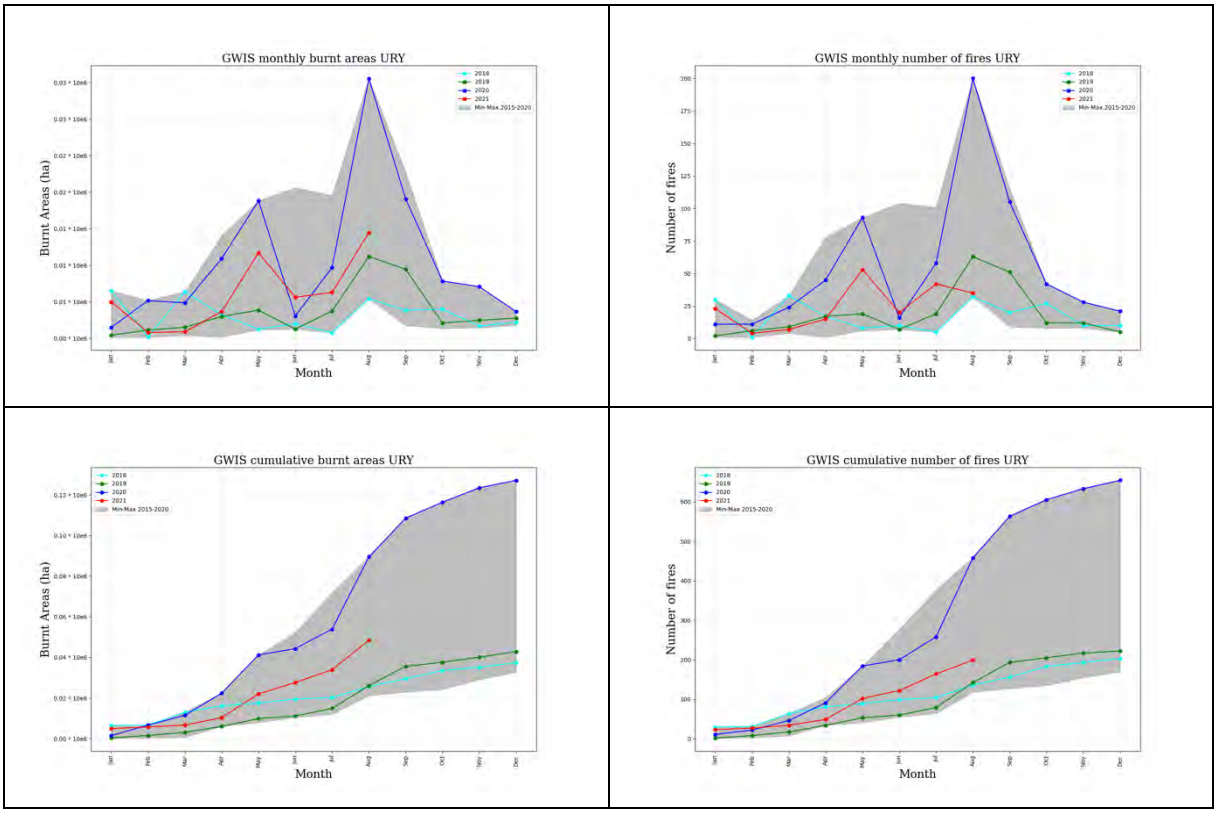


Figure 56. Trend of VIIRS thermal anomalies compared to data in the last six years.

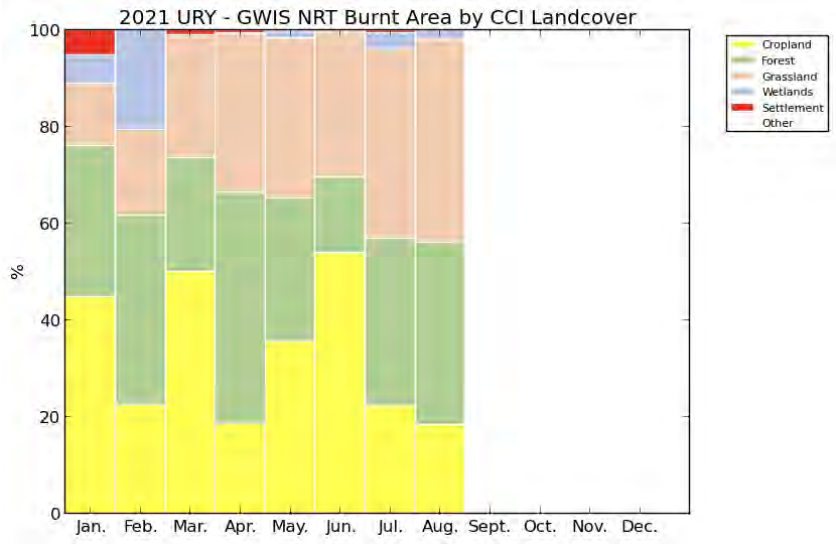


Figure 57. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same trend of the burned area and number of fires shown in Figure 56, with a number of active fire spots in the first eight months of the year below of those recorded in 2020 as shown in Figure 58. This type of data is those often reported in the media.

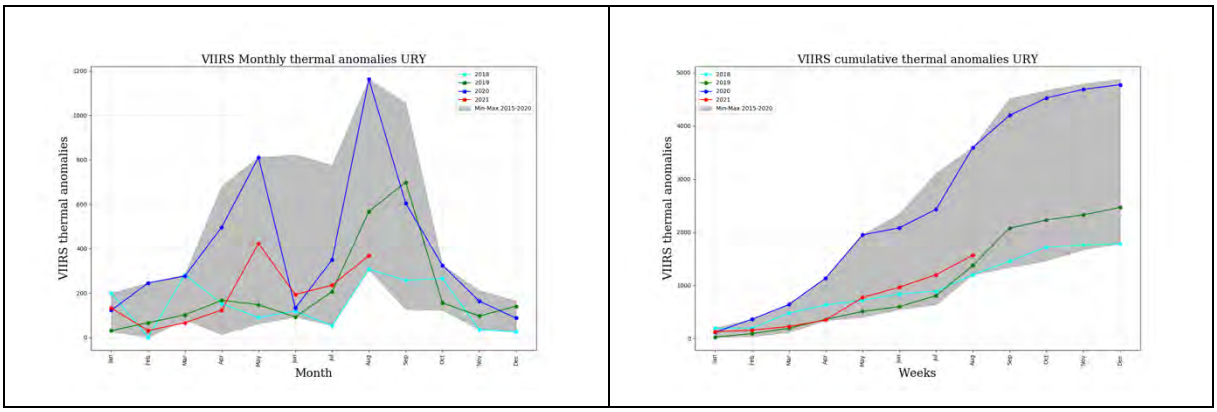


Figure 58 Trend of burnt areas and number of fires as compared to data in the last six years.

16.12 French Guiana

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 59

Figure 59. GWIS burnt areas for 2021 in French Guiana. Burnt areas until 5 September.

The current fire season for 2021 is similar to the previous years, see Figure 60. Until August, a total of around 700 ha of burnt areas have been mapped by GWIS in the region.

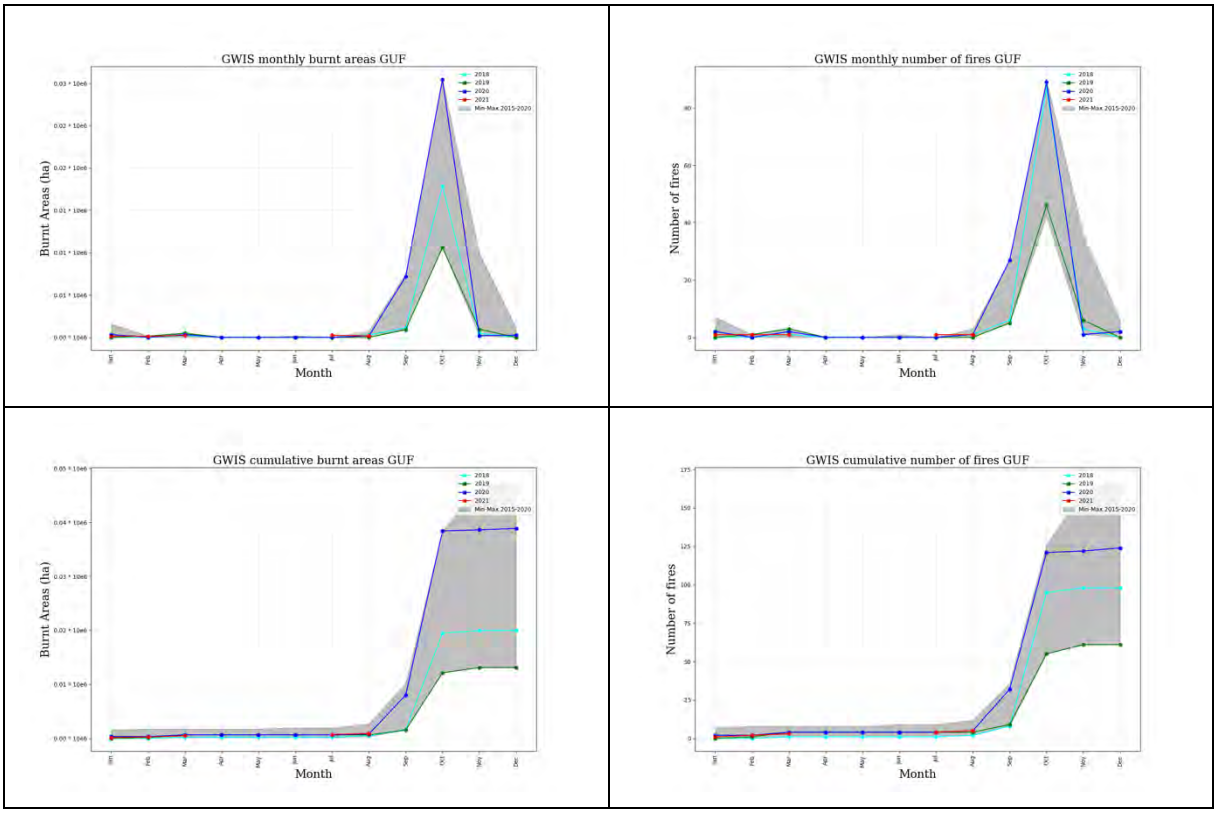


Figure 60. Trend of VIIRS thermal anomalies compared to data in the last six years.

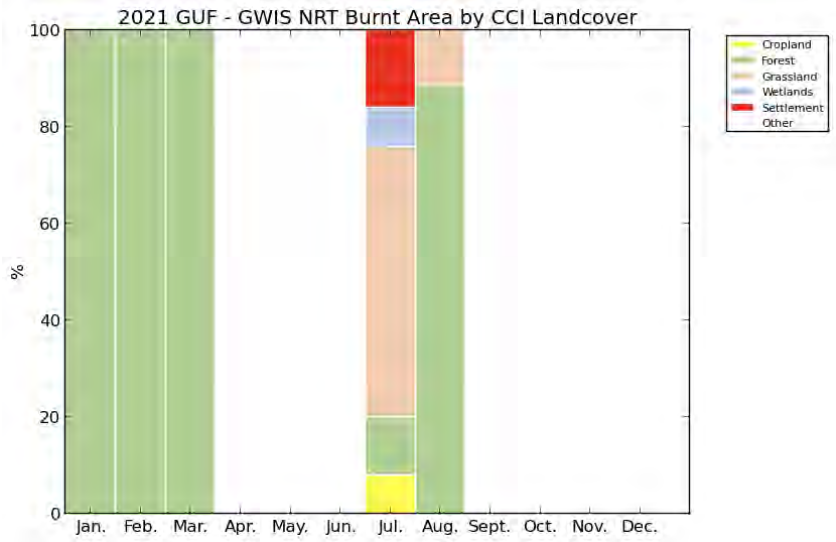


Figure 61. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same trend of the burned area and number of fires shown in Figure 60, with a number of active fire spots in the first eight months of the year below of those recorded in 2020 as shown in Figure 62. This type of data is those often reported in the media.

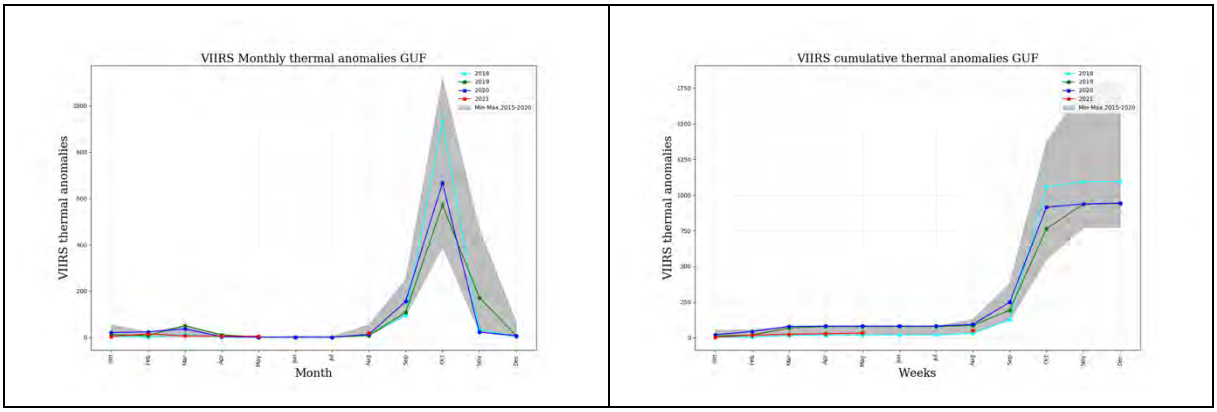


Figure 62. Trend of burnt areas and number of fires as compared to data in the last six years.

16.13 Guyana

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 63

Figure 63. GWIS burnt areas for 2021 in Guyana. Burnt areas until 5 September.

The current fire season for 2021 is below the last two years in all terms, see Figure 64. By August, almost 60 thousand ha of burnt areas have been mapped by GWIS in the region.

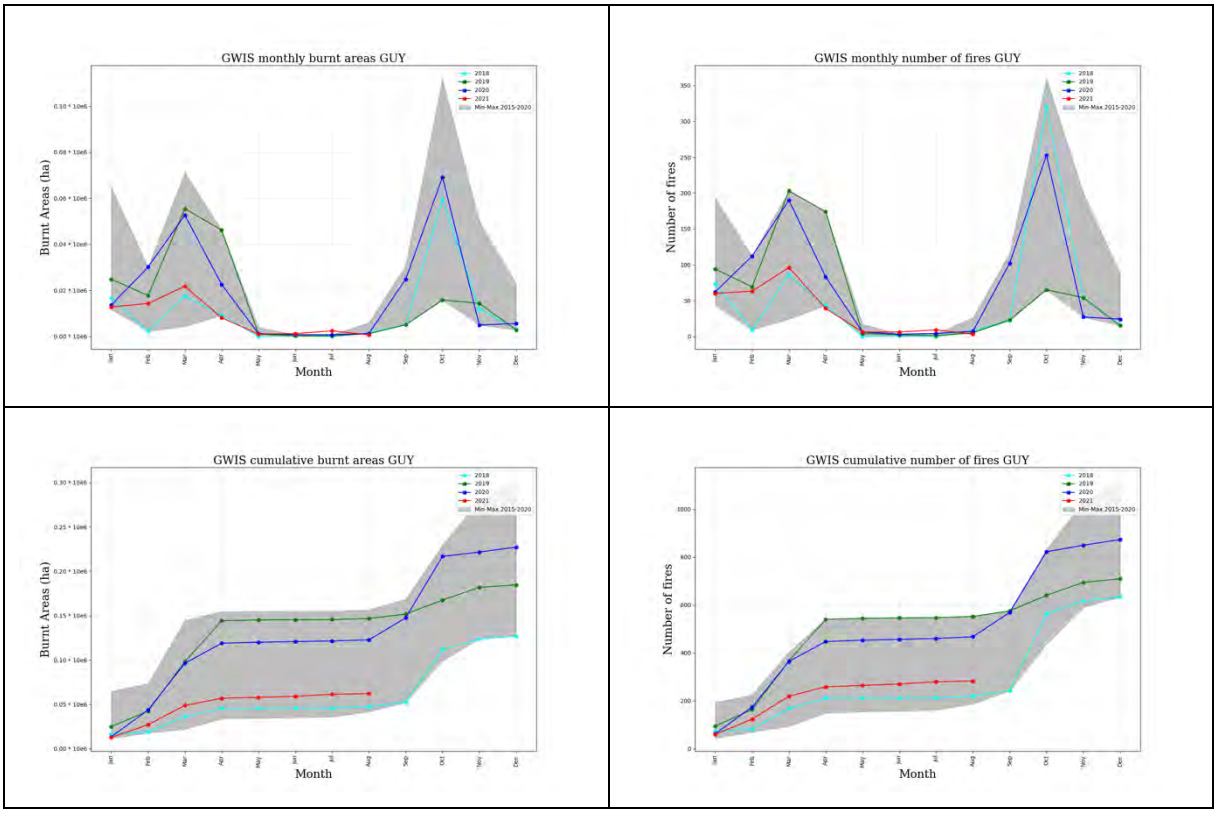


Figure 64. Trend of VIIRS thermal anomalies compared to data in the last six years.

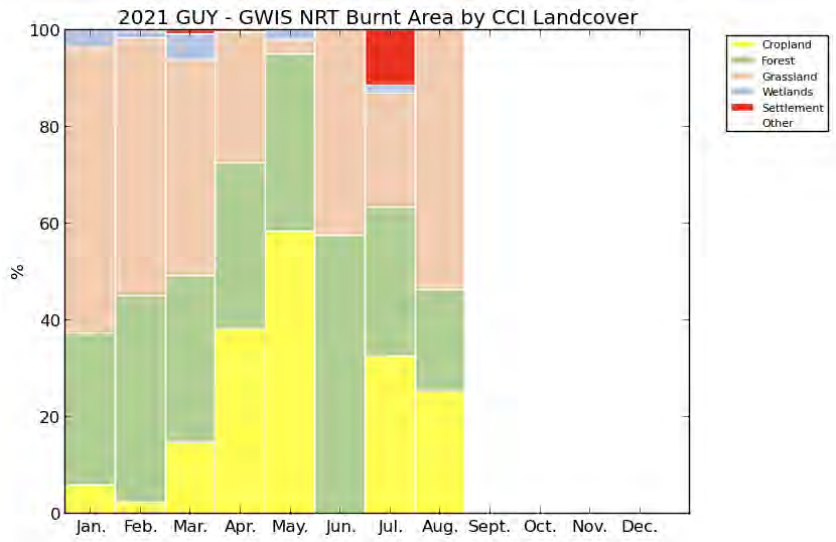


Figure 65. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the lowest number in the last six years as shown in Figure 66. This type of data is those often reported in the media.

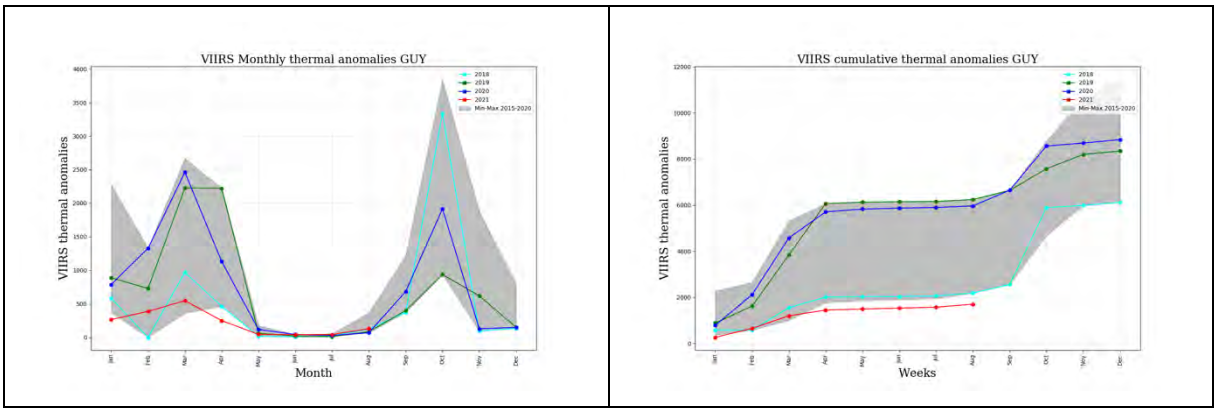


Figure 66. Trend of burnt areas and number of fires as compared to data in the last six years.

16.14 Suriname

In 2021, the spatial extent of the burnt areas in the country mapped by the Near-Real Time (NRT) process in GWIS is presented in Figure 67.

Figure 67. GWIS burnt areas for 2021 in Suriname. Burnt areas until 5 September.

The current fire season for 2021 is similar to the last two years in all terms, see Figure 68. Until August, 4533 ha of burnt areas have been mapped by GWIS in the region.

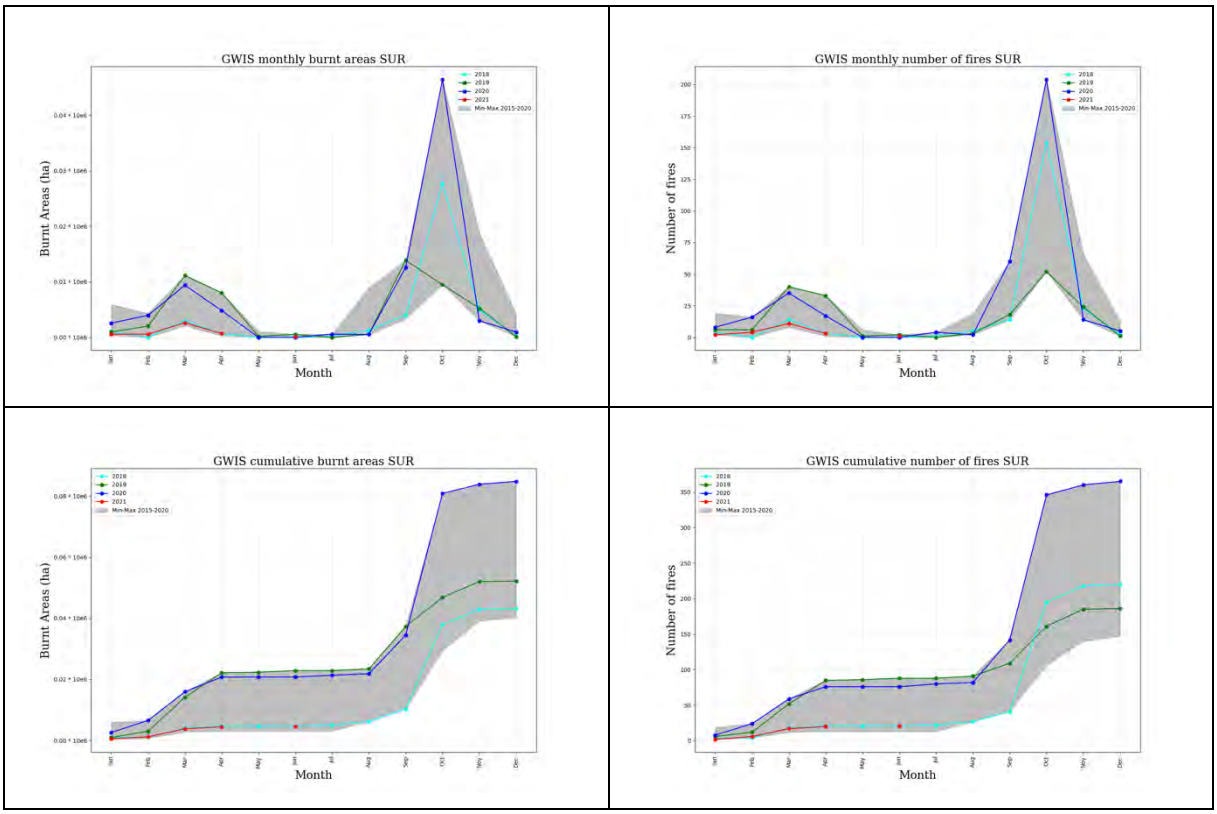


Figure 68. Trend of VIIRS thermal anomalies compared to data in the last six years.

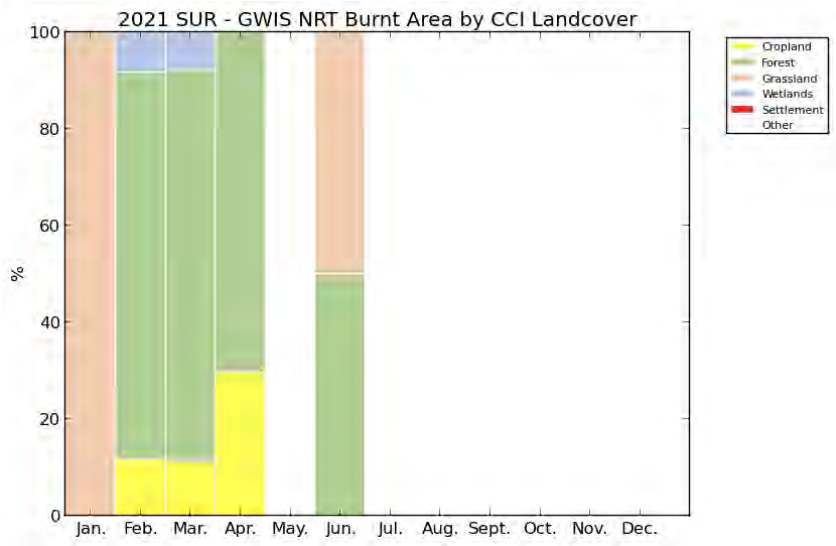


Figure 69. Monthly percentage of burnt land cover for the year 2021.

In terms of active fire spots detected by VIIRS, 2021 presents the same trend of the burned area and number of fires shown in Figure 68, with a number of active fire spots in the first eight months of the year below of those recorded in the last five years as shown in Figure 70. This type of data is those often reported in the media.

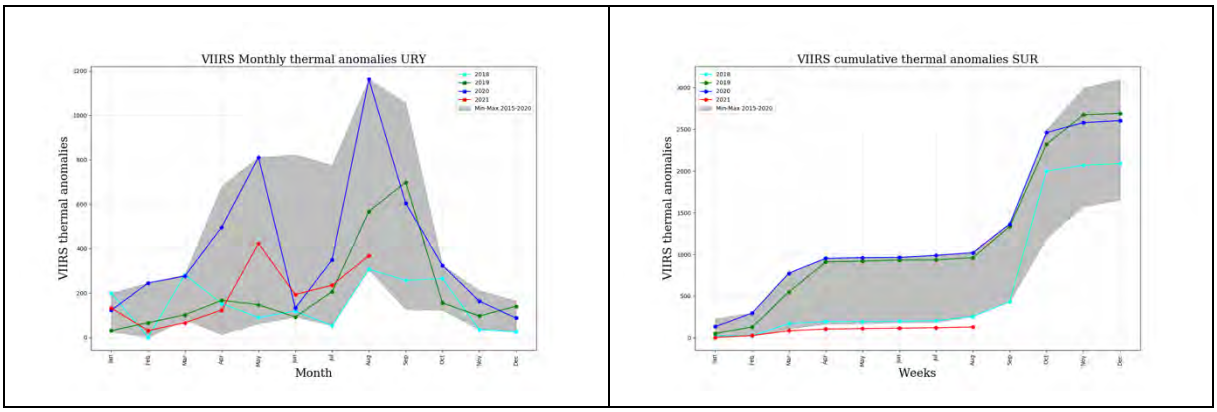


Figure 70. Trend of burnt areas and number of fires as compared to data in the last six years.

16.15 Fire danger and fire weather forecast in the Amazon region

The seasonal fire weather forecast (monthly) of temperature and precipitation anomalies for September is presented in Figure 71. **A strong average temperature anomaly is forecasted for eastern/central Brazil, extending to Bolivia, Paraguay, Argentina and Peru.** The forecast estimates a decrease on precipitation rates for this month in eastern Bolivia, Paraguay and southeastern Brazil and increase on precipitation on the northern Brazil, BLA and northern countries of South America.

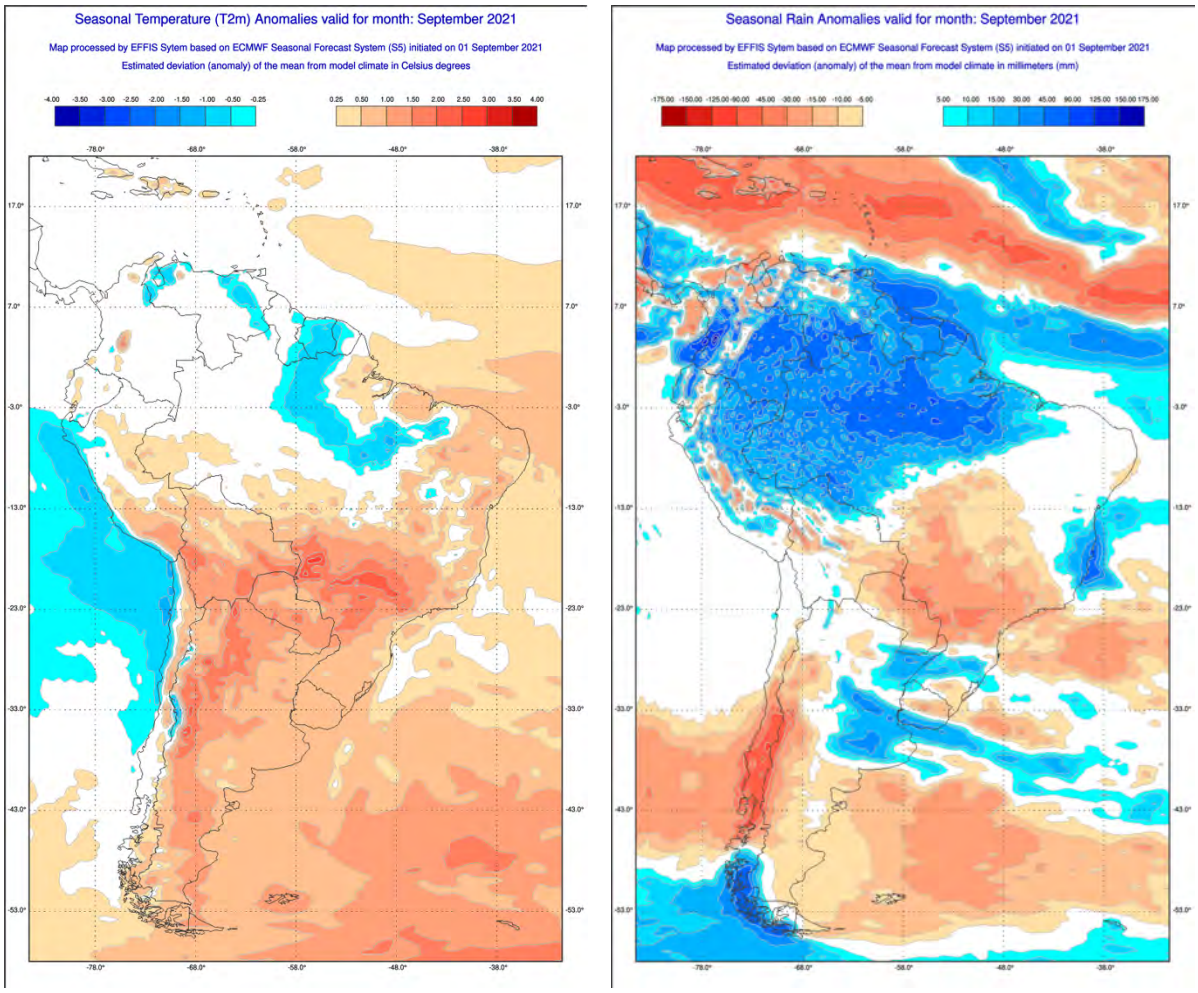


Figure 71. Fire weather anomalies of the current month, September, 2021.

At the current date, its foreseen for October a continuation of above average temperatures anomalies for mainly Argentina and a decrease mainly in eastern Brazil. The forecast for the precipitation rates anomalies in October will be very similar with September for the region (Figure 72).

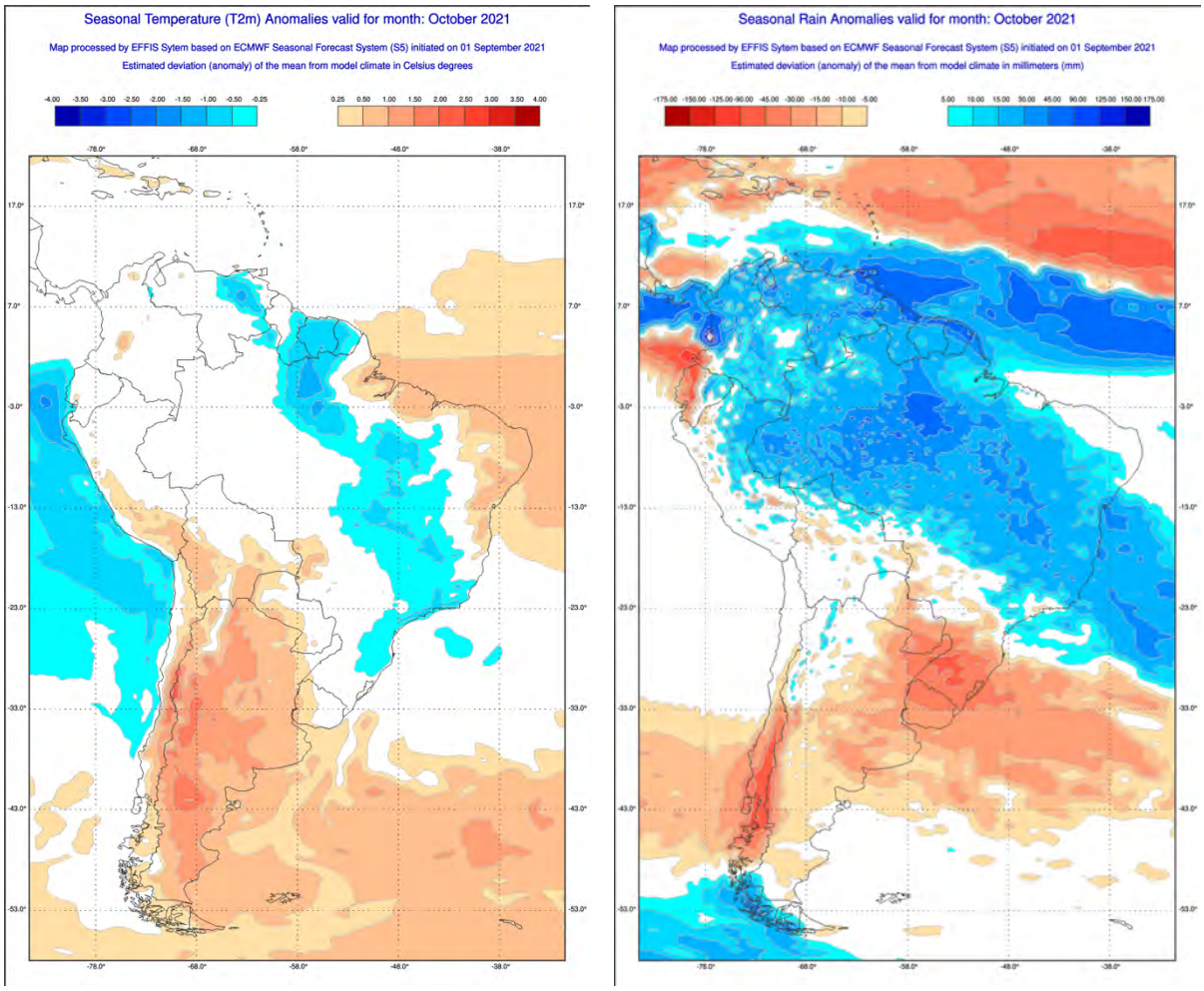


Figure 72. Fire weather anomalies of October, 2021.

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