

# Helios Climate Risk

Powered by CrewAI • Climate risk analysis platform for commodity crops

Chatbot API Tests

## Climate Risk Chatbot

Ask questions in natural language about climate risk data

What country has the highest current climate risk?



The country with the highest current climate risk is Pakistan, with a climate risk score of 48.8 for Rice in the year 2026. This score matches the historical average for the same commodity, indicating a significant level of risk that could impact agricultural productivity and food security in the region.

Data Source

```
▼ {  
    "country_name" : "Pakistan"  
    "country_code" : "PK"  
    "commodity" : "Rice"  
    "this_year_avg_wapr" : 48.8  
    "hist_avg_wapr" : 48.8  
    "year" : 2026  
}
```

Query

```
▼ {  
    "tool" : "get_highest_current_risk"  
    "endpoint" : "/api/v1/query/highest-current-risk"  
    ▼ "params" : {  
        "commodity" : NULL  
    }  
    "logic" :  
    "I used the get_highest_current_risk tool to find the country with the highest climate risk. Since no specific commodity was provided, it returned the absolute highest risk across all commodities."  
}
```

How does Brazil's 2025 climate risk compare to its 10-year average?



In 2025, Brazil's climate risk score for Rice is 28.5. This represents an increase of 0.3 from the 10-year historical average risk score of 28.2. The percentage change indicates a slight increase of about 1.06%. This increase suggests a potential escalation in climate-related challenges for Rice cultivation in Brazil compared to its historical trends.

Data Source

```
▼ {  
    "country_name" : "Brazil"  
    "country_code" : "BR"  
    "commodity" : "Rice"  
    "this_year_avg_wapr" : 28.5  
    "hist_avg_wapr" : 28.2  
    "delta" : 0.3  
    "pct" : 1.06  
}
```

Query

```
▼ {  
    "tool" : "compare_country_year_vs_hist"  
    "endpoint" : "/api/v1/query/compare-country-year-vs-hist"  
    ▼ "params" : {  
        "commodity" : "Rice"  
        "country_code" : "BR"  
        "year" : 2025  
    }  
    "logic" :  
    "I used the compare_country_year_vs_hist tool to compare Brazil's climate risk for Rice in 2025 against its 10-year historical average."  
}
```

What year was most similar to this season in terms of climate risk?

The year most similar to the current season in terms of climate risk for Rice is 2021. The historical average WAPR (climate risk score) for that year was 32.7, which falls into the 'Moderate' risk category. In the current growing season of 2025, the risk context remains relevant for global Rice production, with a total production of 513.82 million metric tons harvested over an area of 165.61 million hectares, yielding an average of 3.1 metric tons per hectare, classified as 'Neutral' yield rating.

Data Source

```
▼ {  
    "commodity" : "Rice"  
    "country_code" : "GLB"  
    "country_name" : "Global"  
    "most_similar_growing_season_year" : 2021  
    "hist_avg_wapr_of_most_similar_year" : 32.7  
    "risk_category" : "Moderate"  
    "total_production" : 513820000  
    "total_area_harvested" : 165614000  
    "total_yield" : 3.1  
    "total_yield_unit" : "mt/ha"  
}
```

Query

```
▼ {  
    "tool" : "get_most_similar_year"  
    "endpoint" : "/api/v1/query/most-similar-year"  
    ▼ "params" : {  
        "commodity" : "Rice"  
        "scope" : "global"  
    }  
    "logic" : "I used the get_most_similar_year tool to find the year that was most similar to the current season for Rice on a global scale."  
}
```

What's the global average climate risk forecast for September 2025?

The global average climate risk forecast for Rice in September 2025 is 25.5. This figure indicates a moderate level of climate risk, with a maximum recorded risk of 46.2 in specific regions. This forecast is crucial for assessing potential agricultural challenges and food security impacts on a global scale.

Data Source

```
▼ {  
    "commodity" : "Rice"  
    "year" : 2025  
    "month" : 9  
    "global_avg_wapr" : 25.5  
    "global_max_wapr" : 46.2  
    "region" : "Global"  
}
```

Query

```
▼ {  
    "tool" : "get_global_avg_for_month"  
    "endpoint" : "/api/v1/query/global-avg-for-month"  
    ▼ "params" : {  
        "commodity" : "Rice"  
        "year" : 2025  
        "month" : 9  
    }  
    "logic" : "I used the get_global_avg_for_month tool to retrieve the global average climate risk for Rice in September 2025."  
}
```

How does the EU's risk today compare with last year?

The climate risk for the European Union in 2026 is 23.5 for Wheat, which is unchanged from the previous year, 2025, where it also scored 23.5. This indicates a stable climate risk level for the EU concerning Wheat, suggesting that the factors affecting climate risk in the region have remained constant over the year.

Data Source

```
▼ {  
    "commodity" : "Wheat"  
    "region" : "European Union"  
    "current_year" : 2026  
    "previous_year" : 2025  
    "current_avg_wapr" : 23.5  
    "previous_avg_wapr" : 23.5
```

```
"delta" : 0  
"percent_change" : 0  
"trend" : "unchanged"  
}
```

#### 🔗 Query

```
▼ {  
  "tool" : "get_eu_risk_comparison"  
  "endpoint" : "/api/v1/query/eu-risk-comparison"  
  ▼ "params" : {  
    "commodity" : "Wheat"  
    "current_year" : 2026  
    "previous_year" : 2025  
  }  
  "logic" :  
    "I used the get_eu_risk_comparison tool to compare the EU's climate risk for Wheat between the current year (2026) and the previous year (2025)."  
}
```

What are the top 3 countries with the lowest historical risk? 🤔

The top 3 countries with the lowest historical risk for Rice are Cambodia with a historical average climate risk score of 8.3, Vietnam with a score of 13.5, and Laos with a score of 17.7. These scores reflect relatively stable conditions for Rice cultivation in these countries compared to others.

#### 📊 Data Source

```
▼ {  
  "country_name" : "Cambodia"  
  "country_code" : "KH"  
  "hist_avg_wapr" : 8.3  
}
```

#### 🔗 Query

```
▼ {  
  "tool" : "get_top_k_lowest_hist_risk"  
  "endpoint" : "/api/v1/query/top-k-lowest-hist-risk"  
  ▼ "params" : {  
    "commodity" : "Rice"  
    "k" : 3  
  }  
  "logic" :  
    "I used the get_top_k_lowest_hist_risk tool to find the top 3 countries with the lowest historical climate risk specifically for Rice."  
}
```

What's the trend in maximum climate risk from 2016 to 2025? 🤔

The maximum climate risk trend from 2016 to 2025 has remained stable at a score of 100.0 each year. This indicates a persistently high level of climate risk that could potentially impact agricultural productivity and food security significantly over this timeframe.

#### 📊 Data Source

```
▼ {  
  "year" : 2016  
  "hist_max_wapr" : 100  
}
```

#### 🔗 Query

```
▼ {  
  "tool" : "get_trend_max_risk_overall"  
  "endpoint" : "/api/v1/query/trend-max-risk-overall"  
  ▼ "params" : {  
    "start_year" : 2016  
    "end_year" : 2025  
  }  
  "logic" :  
    "I used the get_trend_max_risk_overall tool to determine the maximum climate risk trend over the specified years without needing to specify a commodity."  
}
```

Did India's risk increase or decrease from the previous growing season? 🤔

India's climate risk for Rice has shown no change from the previous growing season, maintaining a climate risk score of 41.3 for both years. This stability suggests that the factors affecting climate risk in the region have remained consistent, indicating that agricultural conditions for Rice cultivation are stable.

#### Data Source

```
{  
  "commodity" : "Rice"  
  "country_code" : "IN"  
  "current_year" : 2026  
  "current_wapr" : 41.3  
  "previous_wapr" : 41.3  
  "delta" : 0  
  "direction" : "no_change"  
}
```

#### Query

```
{  
  "tool" : "get_country_season_change"  
  "endpoint" : "/api/v1/query/country-season-change"  
  "params" : {  
    "commodity" : "Rice"  
    "country_code" : "IN"  
  }  
  "logic" :  
    "I used the get_country_season_change tool to compare India's climate risk for Rice between the current and previous growing seasons."  
}
```

What is the current yield rating and how does it relate to risk? 🧐

The current yield rating for Rice is classified as 'Neutral', with a total yield of 3.1 metric tons per hectare. The historical average climate risk score (WAPR) for Rice is 25.5, while the historical maximum recorded risk is 46.2. This suggests that while the yield is stable, there is a moderate level of climate risk associated with Rice cultivation, indicating potential challenges that could affect agricultural productivity in the future.

#### Data Source

```
{  
  "yield_rating" : "Neutral"  
  "total_yield" : 3.1  
  "total_yield_unit" : "mt/ha"  
  "hist_avg_wapr" : 25.5  
  "hist_max_wapr" : 46.2  
  "this_growing_season_year" : 2025  
}
```

#### Query

```
{  
  "tool" : "get_yield_and_risk_relation"  
  "endpoint" : "/api/v1/query/yield-and-risk-relation"  
  "params" : {  
    "commodity" : "Rice"  
    "scope" : "global"  
  }  
  "logic" :  
    "I used the get_yield_and_risk_relation tool to determine the yield rating and its relation to climate risk for Rice on a global scale."  
}
```

Which regions are showing a spike in upcoming seasonal risk? 🧐

Regions showing a spike in upcoming seasonal risk for Rice include Bangladesh and Brazil. For Bangladesh, the average risk score is projected to increase by 4.9, reaching a risk score of 41.2. For Brazil, the risk score is expected to increase by 3.5, resulting in a total risk score of 28.5. These spikes indicate rising climate risk levels that could impact agricultural practices in these regions.

#### Data Source

```
{  
  "Bangladesh" : {  
    "country_name" : "Bangladesh"  
    "country_code" : "BD"  
    "avg_risk_score_diff" : 4.9  
    "upcoming_year_risk_score" : 41.2  
  }  
  "Brazil" : {  
    "country_name" : "Brazil"  
    "country_code" : "BR"  
    "avg_risk_score_diff" : 3.5  
    "upcoming_year_risk_score" : 28.5  
  }  
}
```

Query

```
▼ {  
    "tool" : "get_upcoming_spike_regions"  
    "endpoint" : "/api/v1/query/upcoming-spike-regions"  
    ▼ "params" : {  
        "commodity" : "Rice"  
        "threshold" : 0  
    }  
    "logic" : "I used the get_upcoming_spike_regions tool to find regions with spikes in climate risk for Rice above a specified threshold."  
}
```

Pergunte sobre riscos climáticos... (ex.: 'Qual país tem o maior risco atual para Cocoa beans?')

