Quick Start Guide

Who should use Strata?

- Environmental practitioners and policymakers to deliver conflict-sensitive climate and environmental programming in conflict-affected and fragile regions.
- Political analysts and peace and security practitioners to deliver climate-sensitive conflict prevention and peacebuilding initiatives.
- Researchers, analysts, and others interested in the convergence of environmental, climate change, and socio-economic, and conflict risks.

What does Strata do?

Strata aggregates spatial data for climate, environmental, and human security stress indicators. It combines these with data on population exposure and socioeconomic vulnerability to produce hotspot maps that highlight where these stresses overlap and where they coincide with populations vulnerable to these stresses. The combination of data layers is based on the convergence of evidence approach. With this approach, each indicator is assigned a threshold value, above which the indicator is considered to be “red flagged”, i.e., at a “level of concern”. The hotspot map shows the sum of all the red flags across the chosen indicators, weighted by the population exposure and vulnerability.
How do I work with Strata?

There are three components to Strata: (1) the map interface, (2) the interactive dashboard, and (3) the builder tool.

Map interface

The map interface shows the hotspots map as calculated according to the default settings. You can increase the transparency of the hotspots with the sliders of the “layer” button on the right. That way, the base map becomes more visible for easy navigation and identification of the region of interest. With the map button on the top left, you can choose among a set of different base maps, such as terrain maps and high-resolution satellite images. From the map interface, move to the dashboard by clicking its button on the top right, or open the builder tool by toggling the arrows on the left of the map.
Interactive dashboard

The interactive dashboard provides a deep dive into the output displayed in the map interface using additional maps, graphs, and tables. Different data layers contributing to the overall hotspot map may be selected and visualised on the map separately. By clicking on the maps or charts, further information is displayed, such as the numeric value of indicators.
Builder tool

The **builder tool** enables users to create a custom workflow used to create the hotspot maps. The workflow is presented by coloured blocks, each of which performs a different function or action within the overall hotspot calculation, such as customising indicators, calculating the exposure of populations, and visualising according to the chosen the type of map output. When “snapped” together, they form a workflow containing several actions. When the blue “run” button is pressed, the workflow is enacted, and all the calculation steps are performed on the selected data. The workflow can be customised by dragging and dropping other blocks from the menu (on the left-hand side) or by modifying the choices within the individual blocks. You can also set the data range here: time period, and area.
How do I customise the indicators and thresholds?

Each indicator block allows you to choose an indicator from the drop-down menu. You can add or remove indicators by dragging and dropping blocks, or by selecting different indicators from the drop-down menu. The choice of indicators, and their default threshold (that determines the red flag), have been selected based on user-workshops and literature review. Indicator selection is an iterative process and new indicators are regularly reviewed and added to the platform. Thresholds can be adjusted by selecting "advanced options" on a particular indicator block. Before using advanced options, we recommend you read the section on indicators and thresholds in the User Guidebook since each indicator threshold is uniquely defined.
What does a hotspot mean?

Strata uses current, or “most recently available”, observations or estimates. In this sense, it provides situational awareness, rather than prediction or “now-casting”. Strata’s hotspots draw attention to areas where several indicators may be at a level of concern in the same geographic location, combined with how exposed and vulnerable the population is in that area. Strata is neither a modelling tool, nor does it calculate risk probabilities.

The update frequency of different indicators may vary considerably depending on the availability of data. Some datasets are updated daily while others have not been updated in several years. Information on how often each dataset is updated can be found in the ‘Overview Document of Indicators and Datasets’ and the date of the most recent for each indicator is shown on the platform. Long-term future projections are not yet available but are under development within the tool (forthcoming 2022). Historical conditions and trends may be investigated by appropriate choice of the time period.

Strata’s hotspots highlight locations which users may want to examine in more detail but cannot provide all the information a user may need for a full climate security assessment. Users should integrate the understanding gained from these data-driven maps with their own expert contextual knowledge. Additional knowledge of the context and of potential pathways between stresses, vulnerabilities, and impacts, -- whether it is the user’s own expertise, gathered from local networks or through complementary research -- is required to correctly interpret the visualised hotspots.

Where can I get more help?

The first place to get help on individual blocks and features of the Strata platform is by hovering your mouse over them. This will show a “tooltip” with some information on the function. When advanced options are selected, further tooltips become available. For more detailed help and examples of how to use Strata, consult the ‘User Guidebook’. For more scientific details about the chosen approach, the underlying theory, and indicators, consult the ‘academic article’ (forthcoming).