**Climate Issue: Hazards**
- Climate change is causing high temperatures, unpredictable rainfall patterns, and increasing the frequency of extreme weather events in general.
- A changing climate makes land more vulnerable to hazards, such as extreme heat, drought and fire.
- Science shows that land affected by one hazard is less resilient to other hazards.
- When land is affected by multiple hazards, it is called a compound hazard.

Cities need to know where hazards are occurring to understand which communities are at risk of future hazards, and to ensure future development occurs in safe places.

**Compound Hazards in California**
Areas of California are affected by multiple hazards. Understanding the location of these hazards can help California prepare for emergency relief.

- Researchers used satellites to collect data on the location and frequency of three types of hazards: extreme heat, drought and wildfires.
- They found that the climate is becoming warmer and drier, with an increase in fire events.
- Certain areas in California are being affected by multiple hazards at the same time.
- This trend is expected to continue with increasing temperature and unpredictable rainfall patterns.

**The Value of Data**
Data on the location and frequency of compound hazards allows states and cities to:
- monitor areas of high risk.
- prepare for emergency relief.
- support vulnerable communities.
- avoid development in high risk areas.

**In a Nutshell**
- A changing climate is making California vulnerable to hazards, including heat, drought and fire.
- Some areas are experiencing multiple hazards at the same time - what's known as compound hazards.
- Understanding areas at risk of compound hazards allows cities and states to improve resilience.

**What Can Your City Do?**
- **Partner** with local academic or research institutions to complete a hazard risk assessment.
- **Determine** which communities are most vulnerable.
- **Share** findings with other government agencies and organizations.
- **Develop** a coordinated approach to decrease risk and improve resilience.
- **Track** changes in climate, landscape and infrastructure conditions to consistently monitor risk.

To find out more information on this case study, contact Erin Shives at Erin.Shives@yale.edu. This research was supported by a Hixon Fellowship.