Can we stop climate change? The Paris summit may be the key.

It may sound like the latest film noir movie, but it has nothing to do with a police whodunnit. In America, people often informally use the word “cop” to refer to a police officer. But in this case, COP21 is shorthand for the 21st Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC).
To put it simply, COP21 is an upcoming summit that brings countries together to solve the problems of global warming and climate change.

It all began at the 1992 Earth Summit in Rio de Janeiro, where the UNFCCC was formed to find ways to “stabilize greenhouse gas concentrations in the atmosphere” at low levels to stop further environmental damage. Scientists had found that these emissions from transportation and industry precipitated more rapid climate change — not a good thing.

I love Paris in the winter

COP21 will meet in Paris from November 30 to December 11. It’s going to be big. To date, there are 196 parties to the convention, most of whom will attend. There are also nonmember attendees — observer states and nongovernmental organizations. The parties hope to draft a new international agreement, or protocol, on the climate.

To date, at least 150 countries have submitted goals for reducing greenhouse gas emissions and achieving a low-carbon future through cleaner, more sustainable practices. These goals, called Intended Nationally Determined Contributions, will figure in the the discussions among the parties on how to halt the progress of global warming and climate change. Forty-nine African nations have submitted their goals. Ethiopia, for instance, plans to reduce its emissions by 64 percent below projected business-as-usual emissions by 2030.

Climate change is happening faster because of us

Scientists agree that human activity is largely responsible for the rapid increase in global warming in the past 40 years. There is strong evidence supporting the seriousness of climate change. Drastic changes in weather patterns are occurring: more violent storms, hotter summers and colder winters. If the world continues to warm, sea levels will rise, harming communities located along coastlines. That and drought could create new migration patterns and harm agriculture. Crop yields in some places have diminished in recent years because of exposure to ozone. And warming oceans will affect marine life worldwide in ways that will harm fisheries upon which people depend for food.

Droughts are expected to increase in central and southern Africa, along with unprecedented extremes of heat. Studies predict increased annual precipitation in the Horn of Africa and parts of East Africa that will increase the risk of flooding.

It will not be just a gab fest

COP21 will be about cleaner air, healthier people, stronger economies and keeping island nations from disappearing under the sea. The goal: act now to keep global warming below 2 degrees Celsius. To accomplish that, significant reductions in greenhouse gas emissions worldwide will have to be made over the next few decades. (Carbon dioxide emissions have reached the highest levels this year, according to NASA, the U.S. space agency.)

So what can I do if I'm not in Paris?

- Learn as much as you can about the effects of climate change. NASA's Vital Signs of the Planet website is a great place to start.
- Improve your understanding of the negotiations, and get to know the two diplomats (Daniel Reifsnyder of the U.S. and Ahmed Djoghlaf of Algeria) at the center of the agreement.
- Stay tuned to the U.S. Center at COP21 for live webcasts during the two weeks of the conference.
- Publish your climate solution on the Climate Solutions Hub.
- Follow @FactsOnClimate and @US_Center on Twitter, and use hashtags#ActOnClimate and #AskUSCenter to tweet your views.
- Contact your government officials and urge them to take action now!
- Take the YALI Network Online Course "Understanding Climate Change."
- Facilitate or participate in a YALI Learns event on climate change.