

Stormy Someday

By

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In a summer day that was overcast and 76°F, with 0.1 inches of rain, Columbia's International Research Institute for Climate and Society (IRI) held its monthly long-range forecast briefing. Inside the swooping Monell Building on the Lamont campus in Palisades, New York, the IRI staff read the scientific data (ocean temperatures, jet streams, historical trends) to help governments and nonprofits prepare for climate-related cataclysms — heavy rain, floods, and drought. Once a month, the IRI lets followers know what to expect for the next 120 days. Maybe.

At the July briefing, about twenty people filled a conference room just large enough to hold them. The walls were bare but for a pair of world maps, and with the exposed ducts and naked-wood rafters above, the room resembled the rental office in a ski lodge. Presenters and guests were casually dressed, strongly favoring short-sleeve, plaid button-downs and khaki pants. If the first presenter, the research scientist and drought specialist Bradfield Lyon, hadn't been delivering a climate briefing, he could have been selling time-shares.

"We're looking at above-average conditions in the east central Pacific," he began, pointing to maps covered in splotches of yellow, blue, and red. "An El Niño may be on the way. We'll see."

The day before, Lisa Goddard, the director of the institute, had outlined the limitations of predicting the weather months in advance. "Our goal is to be reliable," she said. "The information we put out is probabilistic, so we're not going to say that next season it's going to be three degrees warmer than it was at this time last year. But we'll say that the probability of it being warmer is this much."

IRI feeds data from government satellites, ships, and weather stations into its own computer models to project likely outcomes. Then groups like Oxfam and the

International Red Cross and Red Crescent Movement take that information and use it to allocate resources in their relief efforts.

Over the course of the hour long briefing, the two presenters — first Lyon, then Shuhua Li, a senior staff associate — discussed drought conditions in the United States (bad, but not as bad as you’ve heard), sea-surface temperatures (SSTs), and the likelihood of above- or below-normal precipitation around the globe over the next three months (North Africa is in for a dry spell. Maybe).

Still, a layperson hoping to come away with a better idea of whether to plan an outdoor wedding in September might have left disappointed. “For SST anomalies, it looks like over the eastern Pacific, only weak or borderline El Niño-like patterns develop,” Li said in one of the more plain-English pronouncements of the afternoon. A typical slide title: “Time Series of 4 Skill Scores for Precipitation (Lead 1).” At no point did anyone utter the phrase “partly cloudy.” An hour after it started, the presentation wound down. “Basically, we have a below-normal forecast for North Atlantic tropical cyclones,” said Li, “and for the western north Pacific, we have just slightly above-normal forecasts for a tropical cyclone.”

One attendee had a final question. “It looks like the only place you have there with a high probability of something abnormal is the Guinea-coast region, below Senegal,” he said. “Is there some local sea surface temperature anomaly associated with that? It’s very local, isn’t it?”

“Yes,” said Li, “it’s very localized.”

“It’s a bit suspicious,” said the guest. “I think it’s worth checking.”

Daniel Osgood, the lead scientist on IRI’s Financial Instruments Sector Team, volunteered a simpler way to predict the weather in Africa.

“With Kenya, it’s easy,” he said. “We travel there to talk about drought, and anywhere we travel, it always rains.”

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