

The Value of Data, Analysis and Federal Science

NASA and Western Water Management

Topics to be addressed:

1. Importance of NASA Data for Global, National and Western Water Challenges
2. The Role NASA plays in the collection and distribution of data
3. How to Ensure the data gets used

1. Importance of NASA Data for Global, National and Western Water Challenges

Events occur that have national, regional and local impacts

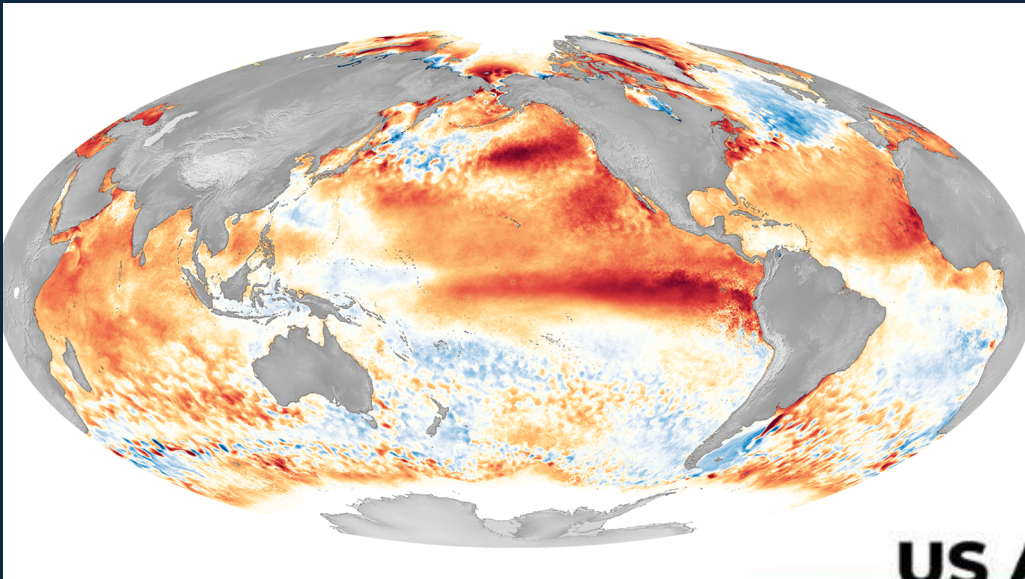
- Fires and air quality
- Floods
- Temperature extremes
- Drought
- Hurricanes and storm surges

A single event can and often does translate into a series of events and impacts downstream.

Local monitoring and modeling often does not capture downstream effects and potential impacts

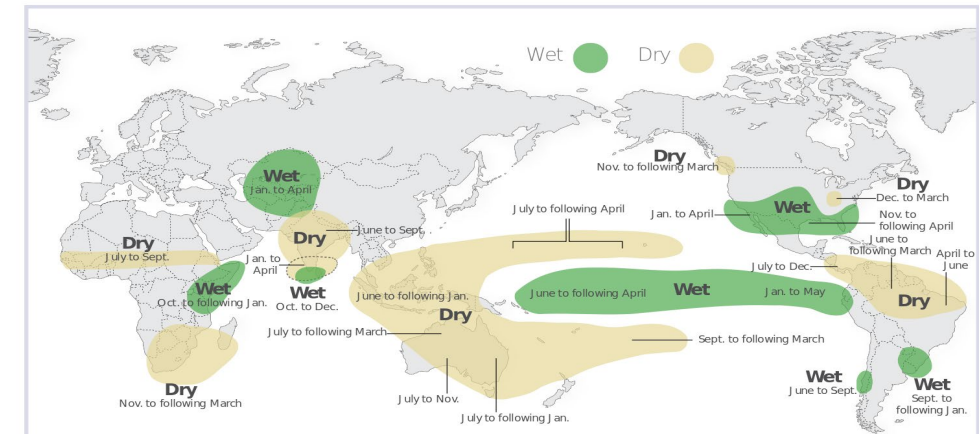


Cascades of Consequences: Single events can trigger multiple actions locally, regionally and nationally



El Niño and Rainfall

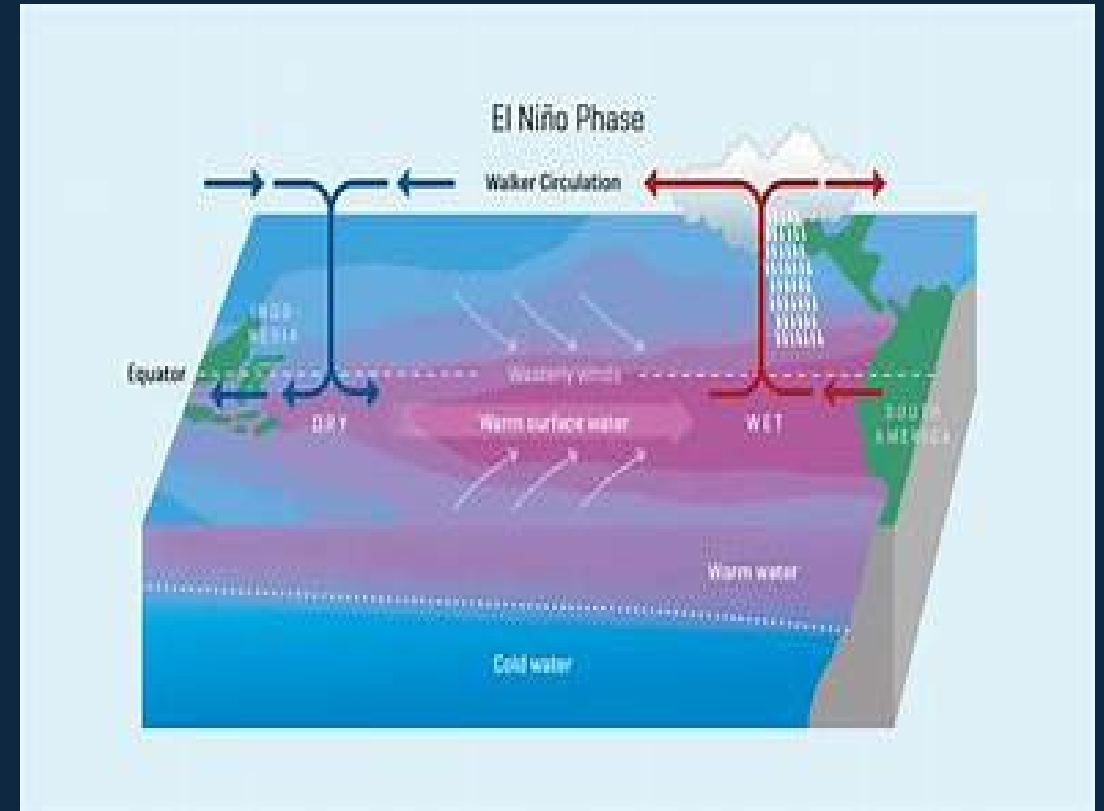
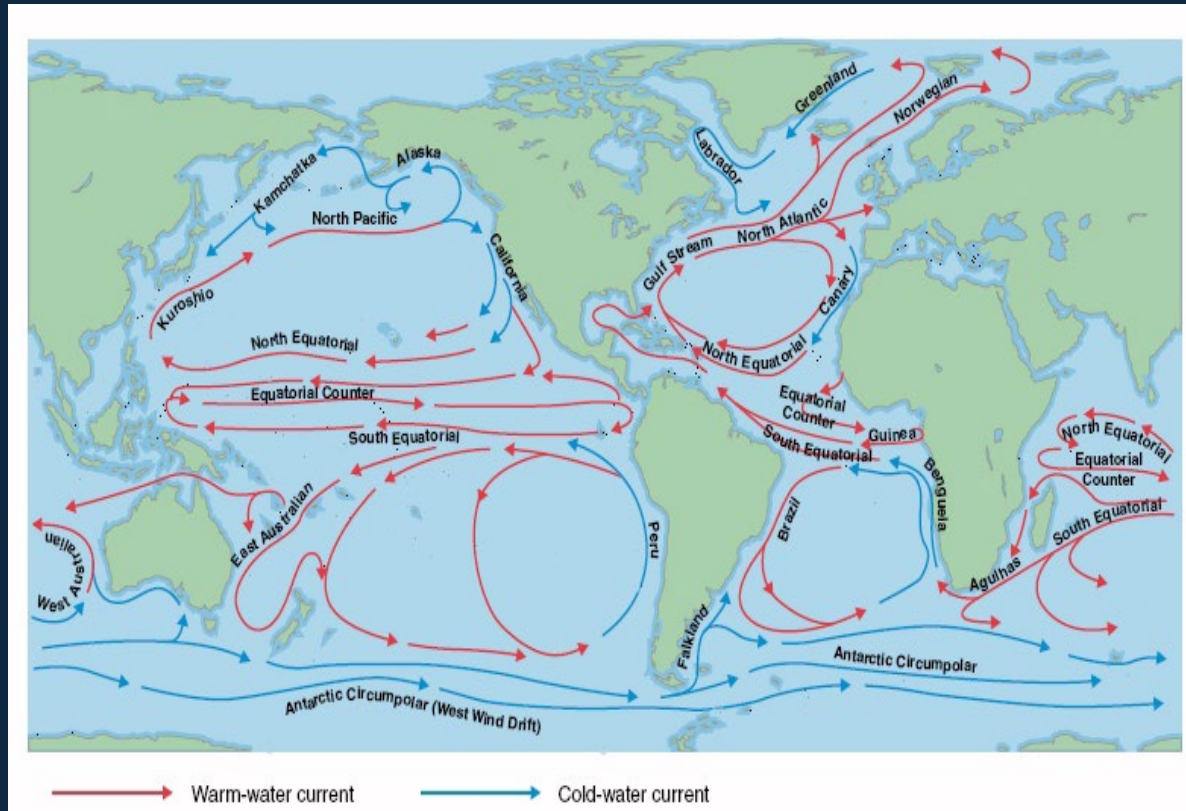
El Niño conditions in the tropical Pacific are known to shift rainfall patterns in many different parts of the world. Although they vary somewhat from one El Niño to the next, the strongest shifts remain fairly consistent in the regions and seasons shown on the map below.



For more information on El Niño and La Niña, go to: <http://iri.columbia.edu/ENSO>

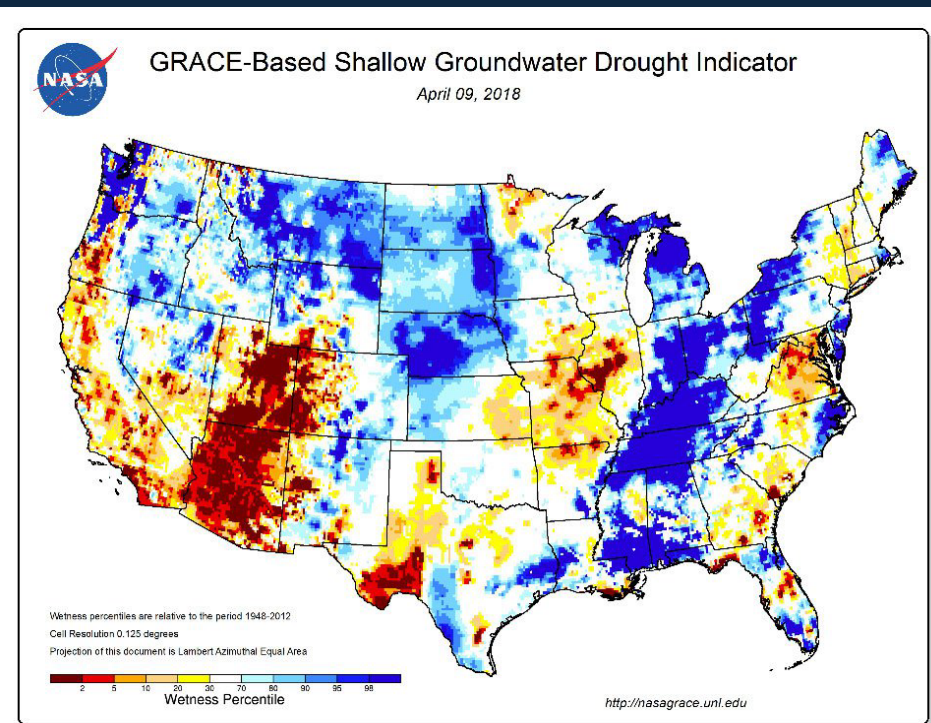
is associated with the high index phase of the Southern Oscillation. J. Climate, 2, 268-284.
text with photos. Photo: AP/Wide World; Photo: AP/Wide World



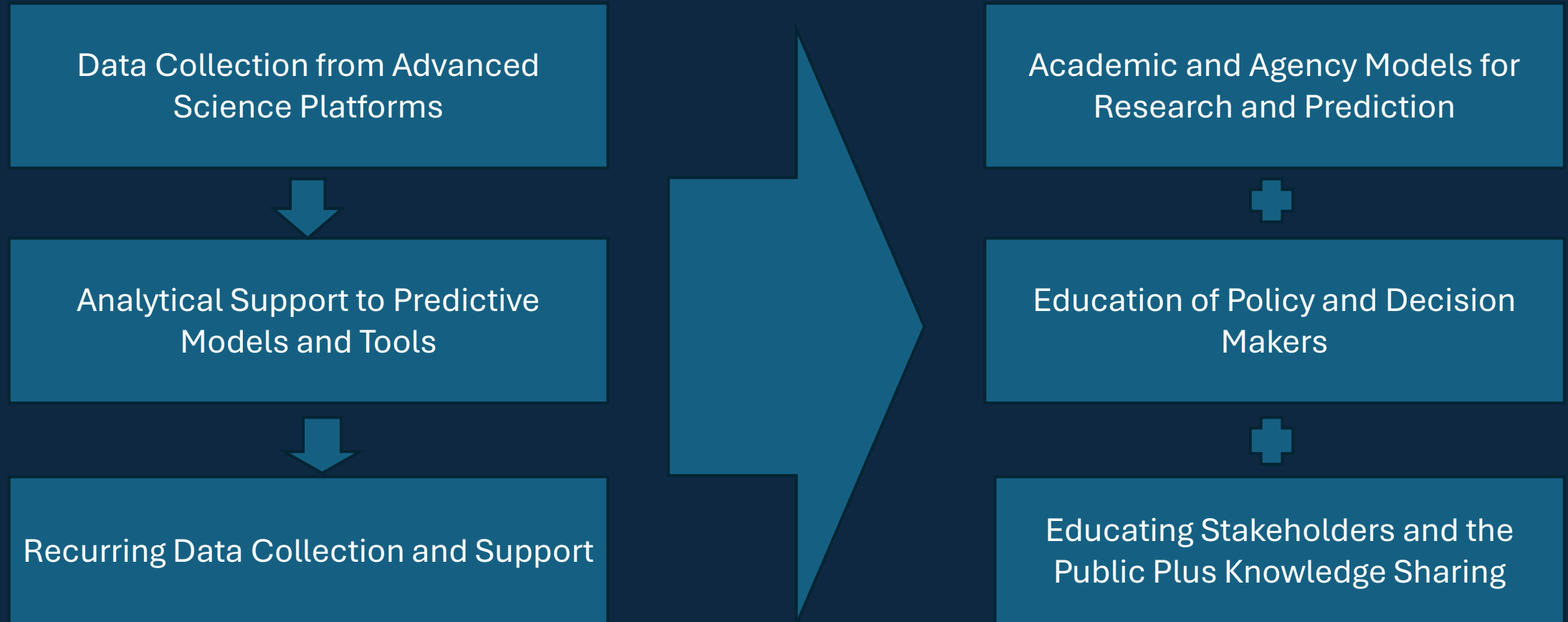


Measuring large scale, complex and often interacting physical and atmospheric systems requires integrating data from multiple science platforms into coherent and explainable formats

2. NASA's Role in the Physical and Atmospheric Science Enterprise



3. NASA's Evolving Role with Stakeholders and Decision-Makers



SUMMARY



NASA provides important data sets from collection platforms that are valuable to the local, regional, national and international communities

David Wegner
Woolpert Engineering