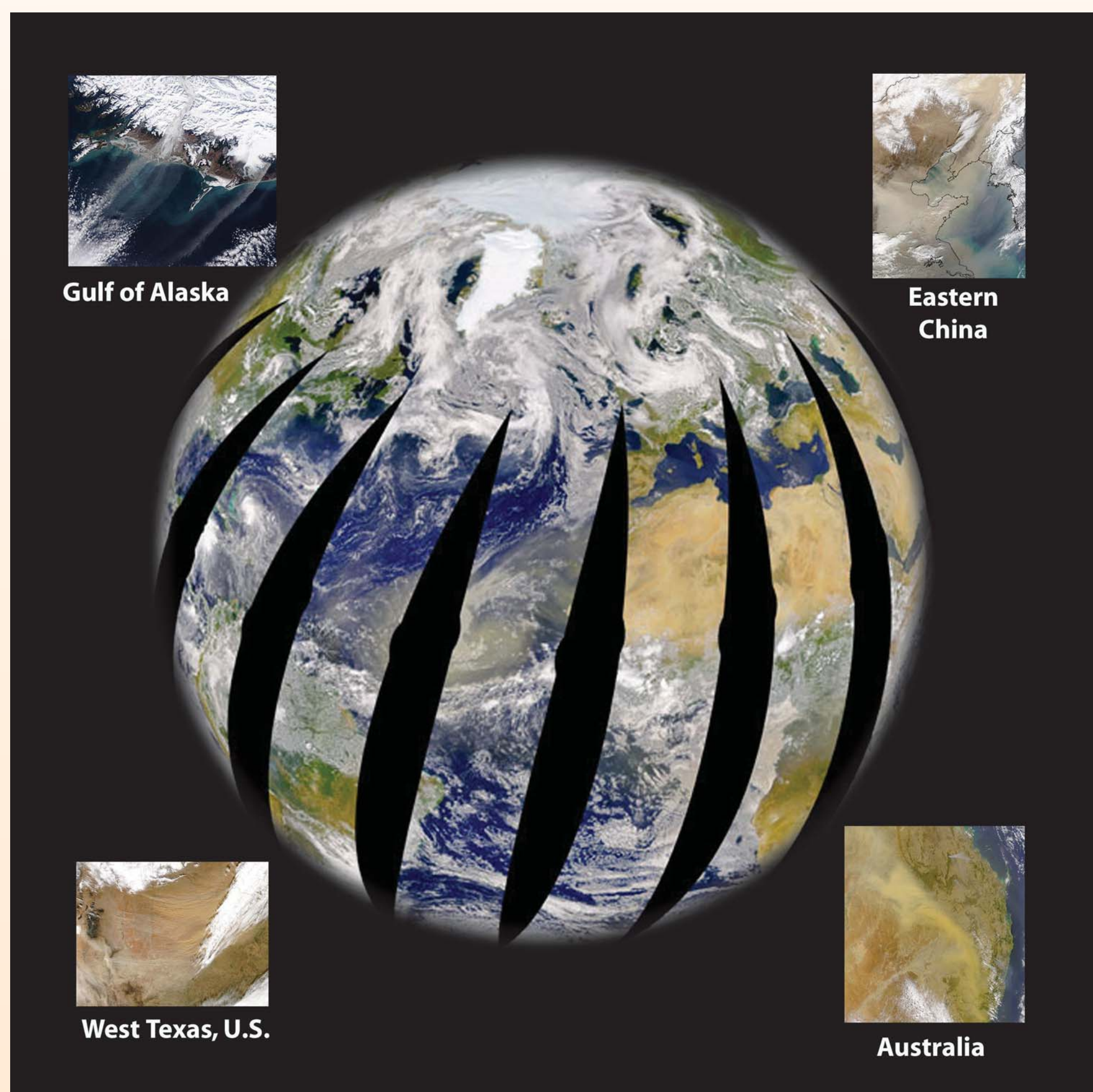




# Public Health Applications in Remote Sensing

## Human Health Societal Benefit Area

### DUST IS A GLOBAL PROBLEM....



At the "breathing level" these dust storms contribute to poor visibility leading to dangerous conditions on roads, as well as to health problems for people with respiratory illnesses, especially in the elderly and very young children.

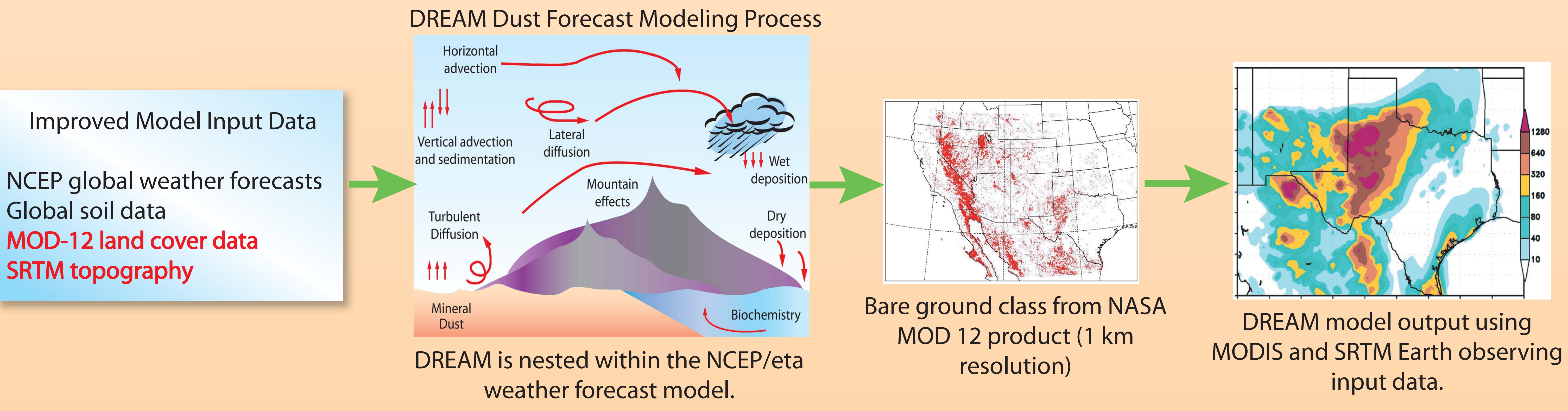


... that contributes to respiratory illnesses in populations worldwide. Winds pick up dust originating in one region and carry it aloft for long distances before depositing it in another region. These large dust storms can be viewed in satellite images.

## FORECASTING DUST EVENTS FOR HUMAN HEALTH

The University of New Mexico's Earth Data Analysis Center and The University of Arizona's Department of Atmospheric Sciences have teamed to adapt the Dust Regional Atmospheric Model (DREAM) to forecast dust events in the southwestern United States. By assimilating finer spatial and temporal resolution data from NASA Earth observations as replacement input parameters to the model, the team aims to improve DREAM's output performance thereby more accurately forecasting impending dust events in this region.

The ultimate goal of this project is to enhance public health decision support systems with the improved model output.



## ENHANCING PUBLIC HEALTH DECISION SUPPORT SYSTEMS

PHAIRS products and information available to users at their desktops

The approach of the PHAIRS project to enhance public health decision support systems (DSSs) is to provide information on environmental conditions relevant to respiratory patients to public health officials via the Internet. Data and information are delivered to users through a web-mapping interface.

**Search and download statistical data**

**Produce PDF maps**

**View dust concentration plot**

**Generate time-series animation**