

National Aeronautics and  
Space Administration



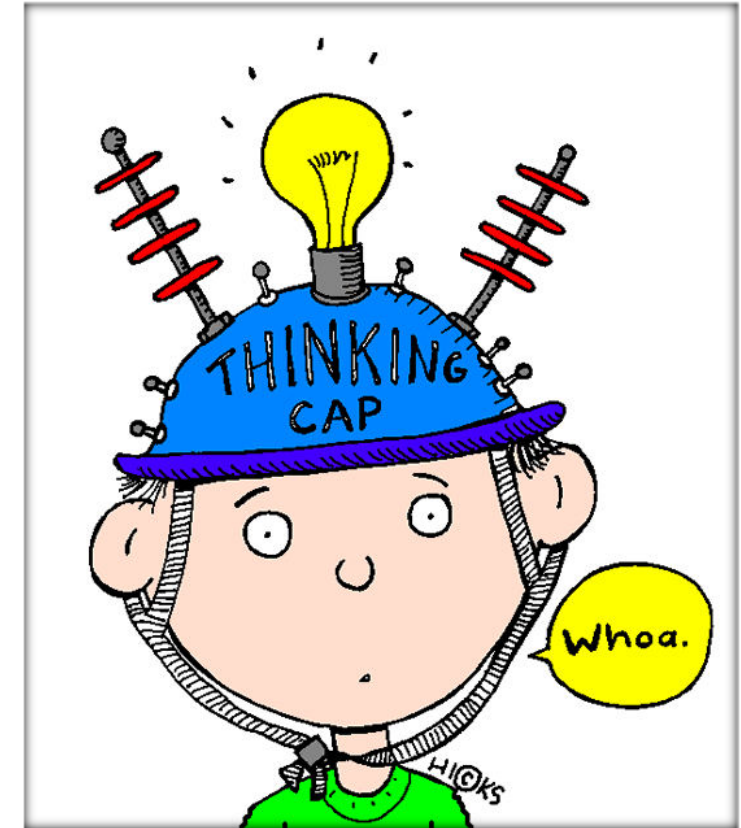
# EXPLORE EARTH

**Helena Chapman, MD MPH PhD**  
**Applied Sciences Program**  
**Earth Science Division**

**Using Earth Observations to Strengthen**  
**One Health Collaborations**

May 14, 2020

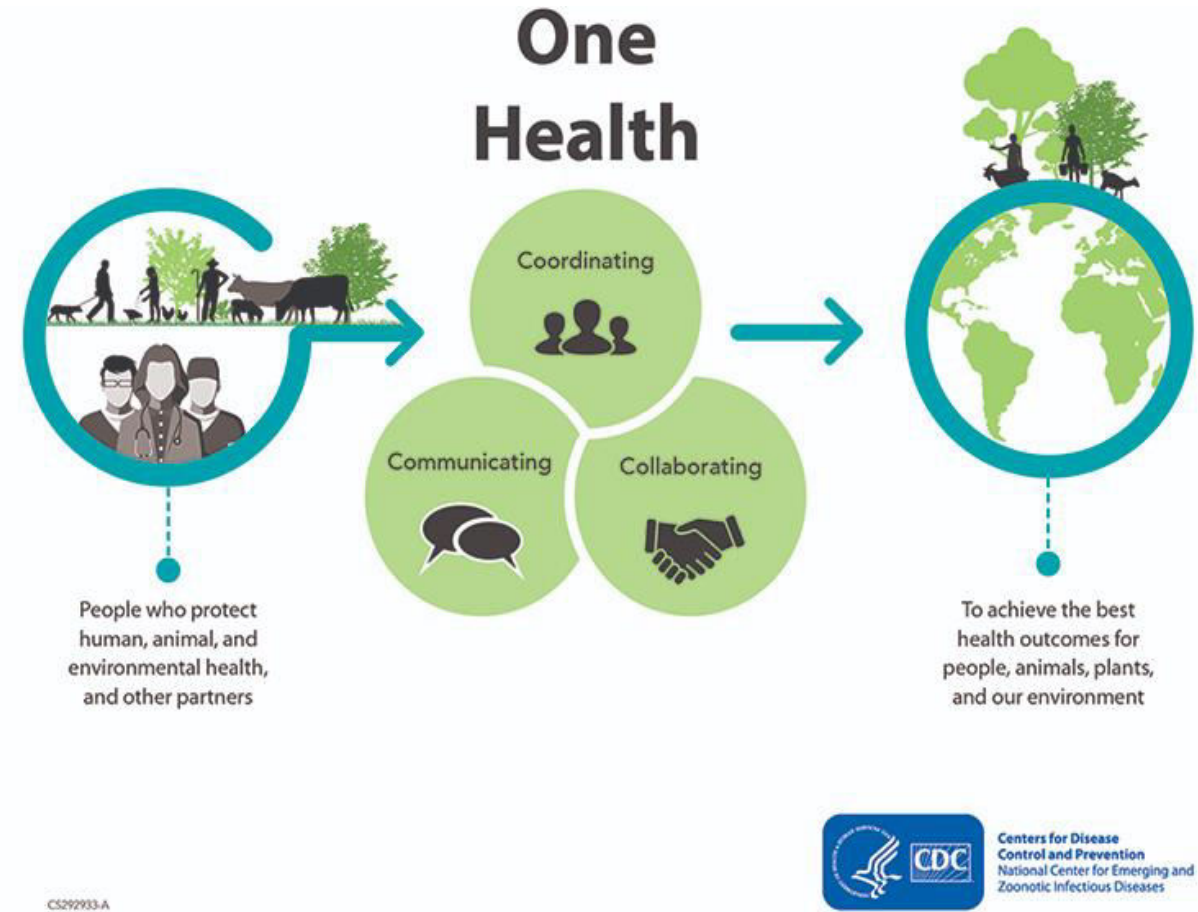
“To raise new questions,  
new possibilities, to regard  
old problems from a new  
angle, requires **creative  
imagination** and marks **real  
advance in science**”  
(Albert Einstein)



Credit: Clipart Panda, 2019:  
<http://www.clipartpanda.com>

# “One Health” Concept

“**Collaborative, multisectoral, and trans-disciplinary approach**— working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the **interconnection** between people, animals, plants, and their shared environment”







*Anopheles freeborni*

# Using Satellite and Ground-based Data to Develop Malaria Risk Maps (Peru)

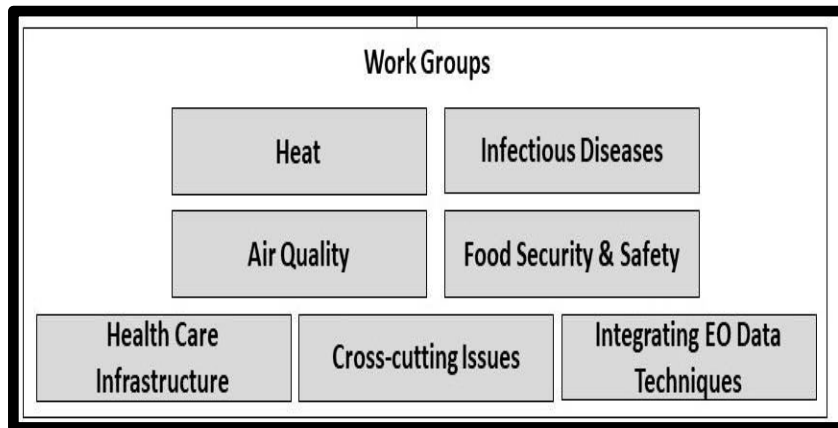
PI Dr. William Pan (Duke University)



**NASA Land Data Assimilation System (LDAS) data sets (precipitation, soil moisture, air temperature, humidity) are combined with public health data**

# Improving Health Decision-Making Using Environmental Observations

Global network of governments, organizations, and observers, who seek to use Earth observation data to improve health decision-making at the international, regional, country, and district levels



**Teleconferences on Earth Observations and COVID-19: A Virtual Round the Room Update**