The global water crisis – caused by drought, flood, and climate change – is about recognizing water’s true value, using it efficiently, and planning for a different future.

California and Texas produced agricultural products worth $56 billion in 2007, accounting for much of the nation’s food production. They also account for half of all groundwater depletion in the U.S., mainly as a result of irrigating crops.

During the most recent drought in California’s Central Valley, from 2006 to 2009, farmers in the south depleted enough groundwater to fill the nation’s largest man-made reservoir, Lake Mead near Las Vegas—a level of groundwater depletion that is unsustainable at current recharge rates. A third of the groundwater depletion in the High Plains occurs in just 4% of the land area. If current trends continue some parts of the southern High Plains that currently support irrigated agriculture, mostly in the Texas Panhandle and western Kansas, will be unable to do so within a few decades.

Routine (weekly) use of remote sensing data (as shown below) can allow the optimum use of our current water resources and help highlight issues such as broken pipes and water pooling.