**Peter Rogers,** Gordon McKay Research Professor of Environmental Engineering, Harvard University

## **Speaking Broadly about Climate Change and Water**

Teaching Water: Global Perspectives on a Resource in Crisis August 5-8, 2013, Harvard University

# Time Tag: 4:23 – 8:38

Food, Water, Energy Nexus

### Content

Global Trends 2030 US National Intelligence Council report (2012) lists *Food, Water, Energy Nexus* as a looming concern.

Growing demand for food

Problems with distribution of food

Energy requirements, cost of moving water

"Farm to fork"

Complicated relationship between water, food, and energy

## **Viewing Questions**

How does increased wealth affect the demand for food?

Why would you expect the amount of water required for irrigation to be greater in the future?

What is your reaction to learning that 50% of food is lost between growing and consumption?

How are water, food, and energy dependent on each other?

#### 8:39 - 33:57

The Food Crisis

#### Content

"One Billion Hungry: Can We Feed the World?" Gordon Conway (2012, Comstock Publishing)

Climate change

Evolving holistic approach to problem

20<sup>th</sup> century decline in food prices, increase in consumption

Incompetence, inefficiency, and corruption

"Five Global Transitions": Urban population, nutrition, agricultural, energy, and climate

### **Viewing Questions**

Why is it important to take a holistic view when thinking about world hunger?
Why is staying the course when it comes to food production, not necessarily viable?
Do you agree that large-scale farming is critical to meeting increased food consumption?
Who might disagree? What are possible alternatives?

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### 33:58 - 47:00

Securing Future Global Water Demands

#### Content

Reality vs. perception Lack of evidence connecting natural disasters to climate change Innovative solutions; efficient use of water; water recycling and filtration Meeting future food demands

# **Viewing Questions**

Why are models problematic when making decisions related to climate change? What might the world look like should we not be able to meet growing food demands? What is currently being done to meet this demand and what else might we consider?