Lesson Two: Stakeholder Activity: Who Cares?

Teacher Information:

**Overarching Question of the Activity**: As a stakeholder, what is important to you to be considered in discussing the question global food security?

**NGSS**: HS-ESS3.C Earth and Human Activity: Human Impacts on Earth Systems, D: global climate change, HS-ETS1B Engineering Design: Developing Possible Solutions

**CC**: reading/writing

**Goal**: foster an understanding among students that as human population increases, the need for food production increases. The role of science is to look at the problem of food security, identify the stakeholders involved in the question and begin to think about the problem with a systems approach. Students must come to understanding that there is no easy answer to the problem, and that all of the stakeholders voices form a network that is deeply connected.

**Introduction:** it is important for students to realize that to solve such a complex problem, all of the stakeholders’ voices must be represented. In a system, there are often trade-offs to being able to make something work. As the old saying goes, there is no free lunch so the price of this lunch needs to be clearly identified, and all people should know who will ultimately pay it. In this activity, student groups of 2-3, depending on class size, will be given a role as a stakeholder and will receive a stakeholder card with information. . From their readings, students should be able to answer the guiding questions and then prepare a 2-3 minute presentation called “Introducing the Stakeholders” to the rest of the class., each student will be given a stake holder sheet in advance and will need to fill in the information being presented on their sheet during these mini-presentations. This activity will be followed by a lesson where students learn to think about the problem in a new way using systems thinking, and will ultimately build a causal loop diagram of the “network” created by the stake holders around the central question of food security.

**Assumptions:** A) students have already completed the Cell Phone Network activity and know what a network is, and B) students have been introduced to the concept of food security through Lesson One.

**Modifications:**  the activity is designed for 2 students per group to encourage deep engagement and student accountability. If your group is smaller, these are the stakeholders you may delete or choose to combine. Some suggestions follow:

* Combine: combine developing country fishermen/farmers, combine world policy makers/developed country government, combine energy/transportation systems