



## CRITICAL THINKING ACTIVITY:

### CLIMATE REFUGEES

Some unique human systems are threatened by climate change. They tend to be poor isolated communities that are tied to specific locations or ecosystems. Among these human systems are small island states and native communities. Because of their low elevation and small size, many of these locations are threatened with partial or total inundation by future rises in sea level. At the same time, increased intensity or frequency of storms could harm them further. The future existence or well being of many island states is threatened by climate change and sea-level rise over the next century.



Many island nations are only a few meters above present sea level. These states may face serious threat of permanent inundation from sea-level rise. Among the most vulnerable of these island states are the Marshall Islands, Kiribati, Tuvalu, Tonga, the Federated States of Micronesia, and the Cook Islands

in the Pacific and several islands in the Indian Ocean and Caribbean Sea as well. Small island states may face the following types of impacts from sea-level rise and climate change:

- ✚ Increased coastal erosion
- ✚ Changes in water supply volume and quality with increased saltwater invasion
- ✚ Coral reef decline resulting from sea-level rise and heat stress
- ✚ Out-migration caused by permanent flooding
- ✚ Social instability related to inter-island migration
- ✚ Loss of income resulting from negative effects on tourist industry
- ✚ Increased s of human settlement due to decrease in land area

## Teacher Sheet 2

- + Loss of agriculture and vegetation
- + Destruction and loss of native plant and animal species

### **OBJECTIVE:** Students will:

- + Understand the effects of climate change on a society and culture different from our own;
- + Evaluate an environmental issue from a point of view that is very different from our own;
- + Communicate their understanding to others in a variety of formats.

### **MATERIALS:**

- + Copy of "GHIE'S ISLAND"
- + Paper/pencil/colored pencils
- + Research materials/maps

### **PROCEDURE:**

1. Pass out copies of the story to students or read it to the class.
2. Ask students to imagine that they are living in a developing country that will probably be affected by rising sea levels.
  - + Explain that people in the story contribute very little to the cause of global warming, yet they will be affected by it as much or more than any of the industrialized countries.
3. Tell students that they are going to read or hear a story about life in a developing country and how people in that country maybe affected by climate change.
  - + Be sure they understand that the story is completely imaginary, but that it does describe a real situation for millions of people ho live on islands or low coastal areas around the world.

### Teacher Sheet 3

4. The story should be read slowly and carefully as it is meant to transport the students into the world of a person living in a place being threatened by rising sea levels.

5. After students have completed reading the story, ask the following questions and encourage a classroom discussion.

- ✚ What would people on an island need that they couldn't provide for themselves from the natural resources on the island?
- ✚ How do you feel about things like traffic jams, bright lights, hamburger stands and air pollution?
- ✚ Why would plants and animals be disappearing from the island?
- ✚ What would you do if you were in *Ghie's* situation?
- ✚ Do you think that other countries are going to respond to this problem of the island nations? Why or why not? How?
- ✚ If you were *Ghie*, how would you be feeling at the end of the story?
- ✚ Did the story make any impression on you? Explain.

6. Give students the choice of a closure activity related to the story:

- ✚ Create a large illustration on butcher paper of what they imagine the island to be like before and after the onset of the effects of climate change.
- ✚ Write a letter to *Ghie* explaining what global warming is and what solutions might be available for their situation.
- ✚ Write a play about *Ghie's* people and their struggles on the island to present to the class.
- ✚ Create a set of at least 15 questions for an imaginary interview with *Ghie*.
- ✚ Create a visual display of the types of plants and animals indigenous to south Pacific islands, their status in the ecosystem and their importance to the people that live there.
- ✚ Create a large visual of a food chain/web that might be threatened on the island