

Activity 1

From Roots to Branches: The Interconnectedness of Environment, Culture and Social Justice

(90-120 minutes + assignments)



“The more I looked into the environment, and the more I looked into the problems that people were complaining about, especially women, the more I understood that what we were complaining about were the symptoms. And that we needed to understand the causes of those symptoms.”

–Wangari Maathai



Activity 1

From Roots to Branches: The Interconnectedness of Environment, Culture and Social Justice

(90-120 minutes + assignments)

Grade Level: 9–12, College

Subject Areas: Social Studies, Civics, Government, Geography, Global Studies, Sociology, Environmental Studies, Political Science, World History, Women's Studies

Standards: See **TAKING ROOT Recommended National Standards** (<http://www.pbs.org/independentlens/takingroot/classroom.html>)

Purpose of the Lesson:

In this lesson, students will examine how Kenya's history as a colonized nation has contributed to their challenges with deforestation. Historical footage documents the extensive clearing of the land, and the displacement of the tribes and tribal life, which took place during the period of British colonialism beginning in the 1880s. They will also learn that the clearing of forested land continued when Kenya returned to self rule beginning in 1963. Students will then identify how this environmental degradation is related to other social, political and economic problems that affect the country's marginalized citizens. Students will recognize that the core of the Green Belt Movement's civic action extends beyond environmentalism.

Objectives:

Students will:

- Recognize the varied factors at play in environmental issues
- Outline the relationship between colonialism and deforestation in Kenya
- Give examples of how deforestation is an indicator of other Kenyan social, economic and political issues
- Identify the conflicts that emerge from these interconnected issues
- Describe how these issues and conflicts affect Kenya's marginalized people
- Examine the origins of The Green Belt Movement in Kenya and the group's efforts to restore natural forests

Skills:

Stating and supporting opinions in class discussions and in writing; analytical reading and viewing; note taking; interpreting information and drawing conclusions; critical thinking; identifying cause and effect; identifying relationships and patterns

Materials:

- Computers with Internet access and/or with DVD capability
- LCD projector or DVD player
- Whiteboard/markers or chalkboard/chalk
- Large multicolored index cards, preferably with adhesive backs or, large multi colored Post-it® Notes
- **TAKING ROOT Discussion Guide**
- **Wangari Maathai Timeline**
- **Planting Ideas Action Guide**
- **TAKING ROOT Video Module 1 "Wangari Maathai"**
- **Teacher Handout A: The Tree of Interconnectedness**
- **Teacher Handout B: TAKING ROOT Quotes**
- **Teacher Handout F: Assignment Rubric, Activity 1**
- **Student Handout A: The Tree of Interconnectedness**
- **Student Handout B: TAKING ROOT Vocabulary**

(Note: Above resources are available at <http://www.pbs.org/independentlens/takingroot/classroom.html>)



Procedures:

Previewing Activity

1. **Identify Environmental Issues.** Using a whiteboard, chalkboard or a screen projection, label a three-column chart “Local,” “State/National” and “Global.” As a class, brainstorm lists of environmental issues that students have heard of or know about. For example, a local issue could be the asthma rates of residents near a factory; a national issue could be the impact of offshore oil drilling; a global issue could be climate change. After filling in a few ideas in each column, focus the class on the “Local” column and draw out some more concerns specific to the students’ community, e.g. polluted water or air or loss of green space or park area.
2. **List Local Environmental Impacts.** Break the class into small groups and distribute **Student Handout A: The Tree of Interconnectedness**. Project a sample on the screen with roots and branches labeled (see **Teacher Handout B: The Tree of Interconnectedness** for ideas). Assign a local issue from the initial list to each group. Instruct the groups to write the issue on the trunk of the tree and then to discuss what they believe to be the cause(s) of the problem. Have them write each idea on the roots of the tree. Then, have the students think about what and who is connected to/affected by the issue. (For example, a polluted lake could affect people who fish and swim in it, the land around the lake, etc.) The students should then include these ideas on the branches. Some question prompts include:
 - “Roots”—The Causes
 - What are the causes of the issue?
 - What decisions caused the problem to intensify? Who made those decisions?
 - “Branches”—The Effects
 - What/whom does the issue affect and how?
 - What conflicts does the issue create?
 - What challenges will people face if they decide to tackle the issue?
3. **Provide Background Information on Kenya and Wangari Maathai.** Briefly introduce the film TAKING ROOT. Note that **Video Module 1 “Kenya & Wangari Maathai”** will introduce them to an environmental movement in Kenya that has had success in combating deforestation, as well as many of the related social and political challenges that country has faced. Have students read pages 2 and 3 of the **TAKING ROOT Discussion Guide**. With the students, discuss the historic and modern day events leading to the Green Belt Movement’s efforts, i.e., the colonists’ clearing of land and the women’s troubles finding food and clean drinking water. (See **Wangari Maathai Timeline** (<http://www.pbs.org/independentlens/takingroot/timeline.html>) Also introduce quotes from the Colonialism and Culture section of **Teacher Handout B: TAKING ROOT Quotes**.

Viewing the Film

4. **View the Video Module.** Instruct students to take notes as they view **TAKING ROOT Video Module 1 “Kenya & Wangari Maathai.”** Have them list at least five environmental, social and cultural issues that they see in the module, and then identify one cause and one effect for each issue.

Reflecting on the Film

5. **Review events in the film by analyzing key factors.** Reproduce **Student Handout A: The Tree of Interconnectedness** on a whiteboard/chalkboard. Write “deforestation” on the trunk of the tree. Brainstorm the “root” causes and fill in together. Invite students to share the issues they discovered; write each one on a separate branch. Provide an example, if necessary.

Issues will include: colonialism, globalization, political corruption and government policies that favor industry over agriculture and so on. Only add those issues that the students have not named and that are significant in the film.



6. Divide students into small groups based on the number of issues identified. Label the branches of the tree: Legal, Economic, Sociocultural, Environmental, Public Health, Political Power. Assign a different “branch” issue to each group. Distribute several large multicolored index cards or Post-it® Notes. Instruct groups to discuss and record the following topics and place them on a corresponding “issue” branch on the tree:
- The impact of the issue on the Kenyan people
 - The impact on the environment
 - The types of conflicts that emerge as a result of these impacts

Issues will include: soil erosion, depletion of natural water sources, loss of money on cash crops, absence of women’s rights, poverty, economic disparity, human rights abuse, continued ecological destruction, the impact of colonialism, decline of cultural connection to the value of the trees/land and so on.

7. Have students reflect on and analyze the “tree” by responding to the following questions (page 5 of the **TAKING ROOT Discussion Guide** has additional questions):
- Maathai introduces her philosophy on environment, causes and action in her own words (refer to the Reforestation section of **Teacher Handout B: TAKING ROOT Quotes**). How does the “tree” of issues and their impacts relate to her statements?
 - How does examining the causes of an environmental issue provide a context for understanding the symptoms that people are facing in their every day life?
 - Along with the trees, what ideas are Maathai and the Green Belt Movement planting in the hearts of women and in the country of Kenya? How are these seeds helping to address the social, cultural and historical issues that deforestation is connected to? In what ways was the Green Belt Movement also a women’s rights movement?
 - Maathai explains that British colonialists introduced the concept that the resources of the land, its trees, animals and crops, could be sold for profit. This created a key cultural shift in Kenya. How does the idea of culture drive Maathai’s political actions?
 - What forces would resist or oppose Maathai’s approach and movement? What could these forces stand to lose if Maathai and the women are successful?
8. **Assignment:** Students should research, identify and contact local environmental champions to interview in person or by phone. Students should investigate the issue their interviewee is addressing: from its causes, to its impact, to the challenges it presents. Students should record the interview using digital video or other methods. Students should format the interview into a print or web article and then upload it online or send it to the teacher via email to share with the class via an environmental blog or wiki. Students should complete **Student Handout A: The Tree of Interconnectedness** about their local issue and the person(s) they researched.

Helpful websites to search for environmental or other service organizations:

- <http://www.idealists.org/if/as/Org/npo>
- http://www.change.org/nonprofits/browse?category_id=4
- http://www.iucn.org/about/union/secretariat/offices/usa/membership/usa_members/
- <http://www.usaservice.org/page/content/opportunities/>

Assessment

Use **Teacher Handout F: Assignment Rubric, Activity 1** to assess students’ interviews. Students should receive the rubric to guide their article writing.



Extension Activities

1. Students should use the Planting Ideas Action Guide to develop and execute a tree-planting plan for a local project. They can develop a “Tree of Interconnectedness” for the project while mapping out a set of strategies, a timeline, potential partners and possible opponents. The United Nations Environment Program’s Billion Tree campaign <http://www.unep.org/billiontreecampaign/> can be another key resource for them.
2. Students rate Kenya’s progress in the Millennium Development Goals (<http://www.endpoverty2015.org>) by comparing against other African nations. Kenya Millennium Development Goals reports may be found at:
 - http://www.mdgmonitor.org/country_progress.cfm?c=KEN&cd=404;
 - http://www.mdgmonitor.org/factsheets_00.cfm?c=KEN&cd=404#;
 - http://www.mdgmonitor.org/country_reports.cfm?c=KEN&cd=404
3. Introduce the concept of the “tragedy of the commons,” coined by Garret Hardin in his famous article published in Science magazine in 1968 (read more via the links below). Students can discuss whether Hardin’s points hold true today, and identify examples of “tragedy of the commons” in their local community, or at the regional, national and global level:
 - <http://www.sciencemag.org/sciext/sotp/commons.dtl> (abstract, full article and other resources available at this link)
 - <http://www.garretthardinsociety.org/info/links.html>
4. Have students explore the pillars of sustainable development—environmental, economical and societal being the identified three, with cultural being argued as a critical fourth—by either examining The Green Belt Movement’s place within the pillars (how each pillar is being framed out) or through other environmental movement efforts. Resources include:
 - Creative City Network of Canada
Culture: The Fourth Pillar of Sustainability
<http://www.creativecity.ca/news/special-edition-3/culture-fourth-pillar.html>
 - Sustainability-Ed
Principles of sustainability: People, planet and profits
<http://www.sustainability-ed.org/pages/what3-1.htm>

