

## Managing Natural Resources and Food Security

### Lesson 2/3 in Food Security and Environmental Change in Africa

|   |                     |   |                                     |   |                                |  |
|---|---------------------|---|-------------------------------------|---|--------------------------------|--|
| <b>Lesson Title:</b><br>Managing Natural Resources and Food Security  | <b>Grade:</b><br>11 | <b>Subject:</b><br>Social Studies   | <b>Time:</b><br>One 75 minute class | <b>Unit:</b><br>Natural Resource Science and Management | <b>Topic:</b><br>Food Security | <b>Cross-Curricular Components:</b><br>Language Arts |
| <b>URL:</b> <a href="http://www.cpar.ca/CPAR/media/PDF/Tools%20for%20Learning/Saskatchewan/SS20-Unit3-Food_Security_and_Environmental_Change_In_Africa.pdf">http://www.cpar.ca/CPAR/media/PDF/Tools%20for%20Learning/Saskatchewan/SS20-Unit3-Food_Security_and_Environmental_Change_In_Africa.pdf</a>   |                     |   |                                     |   |                                |  |
| <b>Lesson Description:</b><br>In this lesson, students will evaluate case studies and apply CPAR's four approaches to sustainable international development that promote long-term food security in rural Africa. Students will be asked to evaluate the long-term environmental impact of the approach in respect to the environmental challenges discussed in lesson One. Students will also be asked to analyze this approach and discuss its implications and/or limitations. |                     | <b>Curriculum Outcomes:</b><br><b>Overall Expectations:</b><br><b>E1)</b> Assess the environmental impact of the harvesting and/or extraction of resources, including ways of reducing this impact, and analyse threats to the sustainability of natural resources<br><b>E3)</b> Demonstrate an understanding of the sustainable use of resources and its relationship to the biodiversity and sustainability of ecosystems.<br><b>Specific Expectations:</b><br><b>E1.1)</b> Assess the environmental impact of industrial practices related to the extracting or harvesting of natural resources, and describe ways in which that impact can be monitored and minimized [AI, C]<br><b>E3.2)</b> Describe the characteristics and properties that make a natural resource viable for use (e.g., the size, type, and location of trees; the value, location, and extraction and processing costs of minerals), and explain the importance of managing natural resources to ensure sustainability and biodiversity<br><b>E3.3)</b> describe a variety of methods used to extract or harvest natural resources (e.g., drag nets, strip mining, selective cutting of forests)<br><b>E3.5)</b> explain the importance of biodiversity to the sustainability of life within an ecosystem (e.g., variability among biotic and abiotic factors within an ecosystem decreases the chance that any organism within that ecosystem will become extinct) |                                     |   |                                |  |
| <b>Materials:</b><br>- Make photocopies of student handouts:<br>o 'Kamanganjulu Village: Case Study One'<br>o 'Chamawe Village: Case Study Two'<br>o 'Conservative Agriculture'<br>o 'Tree Nurseries', "Farmer Field Schools"<br>o 'Seed Fairs'<br>o 'Case Studies'<br>- Chart Paper<br>- Markers   |                     | <b>Assessment:</b><br>- Teacher-given quiz<br>- Class participation in discussions<br>- Evaluation of handout   |                                     |   |                                |  |

#### Procedure:

##### Before:

1. Small Groups/Whole class: Take-up homework
  - Go over 'CPAR's commitment to managing resources and food security'
  - Focus should be given to CPAR's approaches and how food security relates to resource management and sustainability

##### During:

2. Small Groups: Case Studies
  - In groups of 4 -5, students will examine a case study
  - Each group will be assigned either case study #1 or #2
  - Each group will receive an overview of CPAR's four approaches

- Students will read case study and suggest which of the four CPAR approaches could be used to promote resource management, environmental sustainability and to ensure food security
- Students will be asked to critically evaluate the approach(es) they have selected for potential long-term environmental impacts
- Students will document their answers on personal answer sheet and on chart paper
- Each group will present their chart paper to the class

**After:**

3. Individual: Exit Slip

- Before the end of class, students will complete an exit slip
- The exit slip asks students to name one approach that promotes food security, explain how this approach ensures food security, and the long-term environmental impact of this approach
- Teacher will collect these exit slips at the end of class
- Teacher should use the information given for formative feedback

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