



Hungry for Food Security- The East African Experience
Social Studies 20 – Unit 3: Environment

- HANDOUTS -

1. Handouts for Lesson One:
 - Note taking sheet for PowerPoint presentation
 - Homework Assignment - Researching Key Indicators
2. Handouts for Lesson Two:
 - Case Study – Dibaba, Ethiopia
 - Case Study – Chambwe, Malawi
 - Case Study – Getamock, Tanzania
3. Assessment Assignment
 - Assessment Assignment Expectations / Rubric
 - Article for Response
4. Teacher Feedback Form

Hungry for Food Security- The East African Experience

During the PowerPoint presentation, please make sure to take good notes so that you don't miss important information. This information will be useful for you as we work through this unit.

1. What is the definition of 'food security'?

2. How many people in Africa considered undernourished?

3. What are some causes of food insecurity?

4. What is 'sustainable livelihoods approach'?

5. What are some possible grassroots solutions for rural African communities?

HOMEWORK –

RESEARCHING KEY INDICATORS FOR FOOD SECURITY

For your assigned country, research key indicators which you can use to evaluate the causes of food insecurity. Your research will prepare you to form an opinion on which areas of development require the most attention given current levels of progress.

Assigned Country: _____

Key indicators to consider:

- Food Insecurity Rates
- Environmental Degradation (deforestation rates, desertification etc.)
- Climate (average rainfall, length of growing season etc.)
- Human Conflicts
- HIV/AIDS prevalence rates (and other diseases such as malaria which can cause a shortage of labour power)
- Average Household Income

Useful Websites for Research:

World Health Organization

- Core Health Indicators by Country/Topic Database
http://www3.who.int/whosis/core/core_select.htm

World Bank

- Data Query – World Development Indicators by country
<http://devdata.worldbank.org/data-query/>

United Nations

- United Nations Statistical Program
<http://unstats.un.org/unsd/demographic/products/socind/>

UNAIDS

- AIDS Information by Country
<http://www.unaids.org/EN/geographical+area/by+country.asp>

CASE STUDY – DIBATE WOREDA, ETHIOPIA



Overview

Dibate is one of the least developed Woredas (districts) in Ethiopia and the majority of households in the region are considered to be highly food insecure.

Protein Energy Malnutrition (PEM) and other micronutrient deficiencies are common throughout Ethiopia and are especially prevalent in Dibate. Vitamin A, iron and iodine deficiencies are also prevalent amongst children under the age of five and women.

Poor natural resource management practices are resulting in environmental degradation which is evident in high rates of deforestation, reduced biodiversity and declining soil fertility. Moreover, inefficient farming techniques and prevalence of pests contribute to low productivity of both crops and livestock. To make matters worse, very little off-farm income generation taking place as the Dibate is very isolated and lack of roads for transport limits economic opportunities. Due to this isolation, access to education – including agricultural extension training – is very limited. Finally, traditional practices, especially those related to gender, also result in intra-household inequalities in food consumption.

Key Issue: Natural Resources Management and Low Productivity

Two types of farming are practiced in Dibate, the grain-plough complex brought by new settlers to the area and the traditional shifting cultivation of the indigenous Gumuz people where farmers grow crops on a plot for only 2-3 years before moving to new land, which now, due to increased competition for land, requires clearing of forests.

Only 22, 211 hectare or 6% of the land is currently used for crop production, which means only 2.54 hectares per household. The limited land used for crops has low productivity due to declining soil fertility and unimproved farming practices such as monocropping, lack of water, the prevalence of common pests and the use of low-yield crop varieties.

Though the economic role of livestock is important to Dibate, its productivity is low. The distribution and ownership of livestock in the Woreda is highly unequal, varying greatly between villages and households. There are rampant livestock diseases. Livestock are sources of both food and income. Competition for land has also led to overgrazing which is taking its toll on the land.

Key Issue: Inadequate Infrastructure and Human Resources

Dibate remains relatively isolated. All weather roads, markets, credit facilities and communication services are all in short supply. Local people often cite this isolation as a major contributing factor to their poverty and food insecurity as lack of alternative economic activities limits their ability to cope with shocks to household food supply.

High illiteracy rates and lack of access to educational services also cause significant problems. There is little in the way of agricultural extension training taking place and little coordination amongst stakeholders in the agricultural sector.

CASE STUDY – CHAMBWE, MALAWI



Overview

Chambwe Village is located in the Nkhata Bay district of northeastern Malawi. Chambwe is home to over 1000 people living in 190 households. Many of the households are headed by women and/or by elderly guardians of AIDS orphans.

Residents of Chambwe are considered to be highly food insecure. Children under the age of five are especially vulnerable to malnutrition and micronutrient deficiencies. As in the district as a whole, the majority of Chambwe's residents are dependent on subsistence farming.

Key Issue: Nature of Food Production

The staple crop in the region is Cassava, which is very labour intensive to produce – both in terms of agricultural production and processing into edible porridge. Poor nutrition is therefore an issue, both due to unstable supply (caused by shortage of labour) and the fact that cassava-based staple diet simply does not provide enough protein. While some households also grow maize and rice, overall crop diversification is not widely practiced. Furthermore, low-levels of household income prevent the purchase of protein-rich food to supplement the diet.

Heads of households in Chambwe, who are largely elderly and/or women, also have limited knowledge and skills in areas such as agroforestry, crop diversification and irrigation that could enable them to increase the productivity of their gardens for the long-term.

Key Issue: HIV/AIDS

Neighboring villages nicknamed Chambwe 'Nakongwa' meaning 'the feverish village', due to a high incidence of HIV/AIDS. By 1996, the death rate due to AIDS peaked at four deaths per week. By this time, the most productive segment of society – men and women between the ages of 27 and 35 - began falling ill. By 2001, older members of the community were almost the only ones left to take care of the hundreds of orphaned children.

Household resources in Chambwe are stretched in order to meet increased demand for food as household sizes have increased due to orphan-care as many households are caring for as many as four or five AIDS orphans. Food supplies and income are also needed to provide for the sick, who have an increased need for nutrients and to provide needed care and medical support.

At the same time, with the loss of the most productive labour groups to AIDS, food production has declined as a result of shortage of labour power and shortage of knowledge and agricultural expertise.



CASE STUDY – GETAMOCK VILLAGE, TANZANIA

Overview

Getamock village is located in Karatu District in the northern part of Tanzania (only about 4 hours from the Kenyan border). There are fewer than 500 people living in Getamock village and houses are spread out over the rocky terrain that forms the community.

Getamock is home to people of the Iraqw tribe. Villagers speak both Iraqw and Swahili which they learn in school – while there is no school in Getamock, children can walk to a neighboring village to attend school.

Key Issue: Challenging Terrain

The land in Getamock villages poses serious challenges. Getamock is located in an elevated area, the soil is very dry and the terrain is uneven and rocky. In Karatu District there is only one rainy season in the year which lasts only for three months. Villagers cannot count on rains throughout the remaining nine months (although they do receive occasional short rainfalls) – the growing season is therefore quite short. The staple crop in Getamock is maize which forms the staple part of diet as well in the form of *Ugali* and porridge made of boiled maize flour.

In attempts to maximize maize production, farmers in Getamock have tried to use all available land for maize cultivation and, as a result, soil is becoming less fertile. Farmers who are cultivating on or at the base of steeper inclines are also complaining of more frequent run-off and erosion as there are few trees and little remaining indigenous vegetation.

Key Issue: Dependency on Agriculture

Households in Getamock are almost entirely dependent on agriculture. When crops fail, household livelihoods are severely threatened. Accessing markets is difficult, but not impossible. There is a very large monthly market in Karatu town which is located about 35 kilometers away, which attracts markets sellers from villages across Karatu district. However, transportation to and from the market is a challenge.

Key Issue: Gender Roles

Agriculture has traditionally been the domain of men in Getamock village, while women are charged with household chores such as fetching water (there is no clean water point in the village and villagers have to walk 2-4 kilometers to the nearest streams) and preparing meals. Women have been known to take primary responsibility for livestock, but as a result of water scarcity, few villagers currently own livestock – with the exception of perhaps a goat for milk. During the off-season for cultivation, men in the village are occupied with repairs to buildings and social activities.

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Social Studies 20 – World Issues – Unit 3: Environment



Media Response

The issue of climate change often appears in the media. Read the accompanying article and write a response to the article, in the form of a letter to the editor, indicating the implications of climate change on food security for rural African communities. Finally, using the sustainable livelihoods approach and the research you have conducted in this unit, describe some of the interventions which could help these communities to mitigate against the effects of climate change on their food security.

- Identify the implications of climate change on African environments
- Explain how changes to their environments can result in food insecurity
- Identify other factors which make rural African communities vulnerable to food insecurity
- Apply the sustainable livelihoods approach to proposing actions that rural African communities can take to mitigate against the effects of climate change and become more food secure

Assessment Rubric

Name _____

<i>Criteria</i>	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Level 4</i>
Knowledge and Understanding <ul style="list-style-type: none"> • identifies impact of climate change on rural African environments • explains the connection between changes to the environment and food insecurity 				
Thinking and Inquiry <ul style="list-style-type: none"> • determines additional factors affecting food security 				
Application <ul style="list-style-type: none"> • Applies sustainable livelihoods approach to suggesting activities to mitigate against climate change and food insecurity 				
Communication <ul style="list-style-type: none"> • uses the terminology and concepts of food security and Sustainable Livelihoods Approach effectively in responding to the details of the article/broadcast. • writes an effective letter-to-the- editor 				

Overall level of achievement: Level 1___ Level 2___ Level 3___ Level 4___

Comments:

AFRICA: CLIMATE CAUGHT IN RED TAPE

- IRIN News -



Photo: [Manoocher Deghati/IRIN](#)

Southern Africa is already feeling the impact of climate change - as water sources dry up people have to walk long distances in search of the precious commodity

GENEVA/JOHANNESBURG, 14 June 2007 (IRIN) - The residents of Umkhanyakude, a poor rural district in northeastern South Africa, say they have been producing less food over the past few decades because the rains have become more erratic.

Unable to grow enough food, many have been forced to seek work away from home for long periods of time. HIV then rose, said development agency Oxfam Australia, which has been working with the community since 2005, and has tried to help the people of Umkhanyakude understand the link between their altered lifestyle and climate change.

Reduced rainfall often means children cannot attend school because they have to walk far to fetch water for the household. "Some even sleep by the river due to the long distances they need to travel, making them vulnerable to sexual assault or violence," said an April 2007 Oxfam Australia report, *Where has all the water gone?: Understanding climate change from a community perspective*.

The residents do not have access to any government-led long-term sustainable adaptation measures. They have tried diversifying crops or earning money by weaving, wood carving, beading and selling sweets, "but these raise little income due to the lack of markets to sell these goods," said the Oxfam report.

"The large majority ... are unclear about why the climate is changing ... while some see a link between the increase in temperature and reduction in rainfall, there are many misconceptions in the

community about climate change, such as the belief that it is God's will, or that poverty has created climate change," the report adds.

Ideally, communities like Umkhanyakude should receive support from their local, provincial or national governments, which have been required to plan for changing weather patterns and mitigate climate change since the historic 1992 Earth Summit in Rio de Janeiro, organised by the United Nations Conference on Environment and Development.

Too much red tape

Hard-pressed officials in African governments often lack the time or resources to devote to the processes laid out at the Rio summit and in subsequent international initiatives. Many have become so bogged down by the myriad inter-governmental treaties and bodies on climate change, environmental issues and natural disasters

in the past decade that they "can't keep up", said Foday Bojang, head of the African Union's Environment and Natural Resources division, who met with IRIN at a UN conference in Geneva. Between sessions of the UN International Strategy for Disaster Reduction conference, African officials told IRIN that similar broadly environmental issues were being dealt with by different "compartments" within their governments, draining skilled resources and contributing to overlaps and weak coordination within and between governments.

Three conventions were signed at Rio: the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity and the Convention to Combat Desertification, known as the Rio Conventions, which cover environmental issues strongly affected by climate change.

Under the UNFCCC, countries agreed to take climate change into account in their agriculture, industry, energy and natural resources, and develop national programmes to slow climate change.

In the biodiversity treaty, countries undertook to conserve species, transfer technology, and share fairly the benefits arising from the commercial use of genetic resources.

Parties to the desertification agreement have to carry out national, sub-regional and regional action programmes, and address the causes of land degradation, ranging from international trade patterns to unsustainable land management.

The mitigation measures to be undertaken under the convention to check desertification are quite similar to the ones proposed by a subsequent framework for action advocated by the UN's International Strategy for Disaster Reduction.

In addition, the World Meteorological Organisation also drew up a Natural Disaster Prevention and Mitigation Programme, with natural disaster risk reduction as the core of its mission.

To keep up with the global process on each of these conventions and programmes, governments are required to devote personnel and other resources, often from different departments: agriculture, environment, water affairs or even land management.

"At the moment countries have to have at least three focal points on the Rio conventions related to climate change. There is no point in running parallel processes, and it ends up in duplication; there needs to be better coordination, maybe brought under one focal agency such as UNEP [the United Nations Environment Programme]", Bojang suggested.

"Then we also need focal points on disaster prevention and risk reduction. The mitigation measures to be undertaken under all these processes are the same, as the objective is the same: better management of our natural resources," he added.

An official from a Southern African government told IRIN that they often had to shut down the office dealing with risk reduction to move the personnel to disaster prevention "whenever there is an eventuality".

“ Hard-pressed officials in African governments often lack the time or resources to devote to the processes laid out at the Rio summit and in subsequent international initiatives ”

Different approaches

Officials of the various conventions and programmes at the Geneva conference maintained that their approaches were nuanced, and an official explained that the "conventions serve as a framework for developing programmes".

But Bojang argued that this often led to the duplication of processes. Various ministries need to get involved, and "there is often lack of synergy, even within governments, on their response to the issue" because of the different approaches.

"That is very true," remarked a UN official involved with one of the conventions on climate change. Choosing to remain anonymous, he added they often had to check with countries whether there was agreement within their government on the issue.

Integrated approach versus "compartments"

The way forward was an integrated approach, Yvette Stevens, the former UN Assistant Emergency Relief Coordinator, told IRIN. "It will happen. There will be a common platform for all the agencies to coordinate and work together on climate change. A lot of energy is wasted in compartmentalisation."



Photo: [IRIN](#) 

Prolonged dry spells as a result of climate change have already compromised food security in the region

Since the impact of climate change is so broad, as the residents of Umkhanyakude are finding, there has been some debate on integrating efforts to ameliorate its effects into the UN's Millennium Development Goals (MDGs).

Oxfam Australia found that climate change had reduced the effectiveness of development planning in Umkhanyakude and had cancelled out some progress towards the MDGs.

"We [the AU] have talked about it, and we are already talking about integrating the impact of climate change into our poverty reduction plans," said Bojang.

John Magrath, a researcher at Oxfam-UK, said integrating the impact of climate change into national development plans would help to enhance the issue's profile.

"Often, climate change is seen as an environmental matter and left in the hands of the environment ministry, which often lacks political clout, and the issue does not get the priority it deserves," he commented. "Integrating climate change into national development plans would also enrich the debate around the MDGs."

[ENDS]

[This report does not necessarily reflect the views of the United Nations]

Teacher Feedback Form

Your feedback is crucial as it allows us to make revisions to our educational materials and ensure that they are as useful, appropriate and teacher-friendly as possible. Just knowing where Tools for Learning units are being used is also important for us and for our funding partners as it allows us to evaluate our educational activities.

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Teachers who complete this form will receive a FREE copy of the book “Where on earth are we going?” by Maurice Strong, former Canadian Ambassador to the United Nations.

Thank you for taking the time to provide your feedback!

Teacher Name:

School:

Course Name:

***For each section, please provide a score (where 1 is poor and 5 is excellent).
Please also provide any comments in the space provided.***

1. Lesson One

Teaching notes are adequate and appropriate?	1	2	3	4	5
Lesson content is relevant to course expectations?	1	2	3	4	5
Photos and examples used are appropriate and effective?	1	2	3	4	5
Lesson is complete and covers all needed issues?	1	2	3	4	5

Additional Comment & Suggestions for Improvement:

2. Lesson Two

Teaching notes are adequate and appropriate?	1	2	3	4	5
Lesson content is relevant to course expectations?	1	2	3	4	5
Photos and examples used are appropriate and effective?	1	2	3	4	5
Lesson is complete and covers all needed issues?	1	2	3	4	5

Additional Comment & Suggestions for Improvement:

3. Lesson Three (if applicable)

Teaching notes are adequate and appropriate?	1	2	3	4	5
Lesson content is relevant to course expectations?	1	2	3	4	5
Photos and examples used are appropriate and effective?	1	2	3	4	5
Lesson is complete and covers all needed issues?	1	2	3	4	5

Additional Comment & Suggestions for Improvement:

4. Homework

Homework instructions are clear?	1	2	3	4	5
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Homework expectations are appropriate to course and grade level?	1	2	3	4	5
Teacher notes are adequate?	1	2	3	4	5

Additional Comment & Suggestions for Improvement:

5. Assessment Assignment

Assignment instructions are clear?	1	2	3	4	5
Assignment expectations are appropriate to course and grade level?	1	2	3	4	5
Marking scheme is clear and appropriate to grade level?	1	2	3	4	5
Teacher notes are adequate?	1	2	3	4	5

Additional Comment & Suggestions for Improvement:

6. Unit as a Whole

Unit addresses course expectations	1	2	3	4	5
Content is appropriate for grade level?	1	2	3	4	5
Teacher notes are clear and adequate?	1	2	3	4	5
Do you plan to use this material again?	1	2	3	4	5

Additional Comment & Suggestions for Improvement:

Thank you again for providing your feedback!