

# Predicting Nations at Risk

By Bobbi Kroll In June 2002  
For Eastbrook High School, Marion, Indiana

**Time:** Four or five fifty-minute classroom sessions for 9th-10th grade World Geography

## **Purpose:**

This activity is designed to help students understand the “So what?”—or the international implications—of factors that indicate the developmental status of a nation.

## **Geography Standards**

### ***The World in Spatial Terms***

- Indiana Geography Standard 1: Students will use maps and Geographical Information Systems (GIS) to acquire and process information about people, places and environments.
- National Geography Standard 1-B: Students will use maps and other geographic representations to analyze world events and suggest solutions to world problems. In this activity, the mapping of factors (GDP, infant mortality rate, etc.) in developing nations that may result in international distress is used as an attempt to predict areas of the world that need to be given special attention by developed nations.

### ***Places and Regions***

- Indiana Geography Standard 2: Students will acquire a framework for thinking geographically, including the location and unique characteristics of places. They will identify the ... human characteristics of places.
- National Geography Standard 6-B: Students will explain how individuals view places and regions on the basis of their...social class, ethnicity, values, and belief systems. Many people in developed nations have a prejudiced view of developing nations. In this activity, groups will objectively chart and analyze data and research specific developmental problems faced by developing nations in their group’s assigned region. The goal is to understand the difficulty of development and to empathize with developing nations. They will also hear an example of a tribal group who responded sacrificially to Americans after September 11, 2001.

### ***Human Systems***

- Indiana Geography Standard 4: Students will identify and analyze the human activities that shape the Earth’s surface, including...cultural patterns, and economic and political systems. Using...GIS, they will map the distribution of various human phenomena and look for spatial patterns that the maps reveal.
- National Geography Standard 10-B: Students will analyze how cultures influence the characteristics of regions as exemplified by being able to analyze demographic data (e.g. infant mortality) to describe a region’s cultural characteristics. Students will chart and map the statistics identified as being key to the stability or instability of a nation and predict potential “trouble spots”.

### ***The Uses of Geography***

- Indiana Geography Standard 6(b): Students will apply the geographic viewpoint to

local, regional, and world policies and problems.

- National Geography Standard 18-D: How to use geographic knowledge, skills, and perspectives to analyze problems and make decisions.

Students will observe and analyze the (charted and mapped) information to make observations, predictions, and recommendations regarding at-risk nations.

### **Objectives:**

Upon completion of this activity, students will be able to...

- 1) List and explain the importance of factors (e.g. GDP) that indicate the level of development attained by a nation.
- 2) List specific data regarding high and low levels of these factors:
  - a) Cite the GDP, infant mortality rate, etc. of one developed nation
  - b) Cite the GDP, infant mortality rate, etc. of one developing nation
- 3) Discuss the relationship of these factors to the “health” or “distress” of a nation
- 4) Explain the following in essay form:
  - (a) the major differences between developed and developing nations
  - (b) the type / quality of relationship / policies developed nations should adopt toward developing nations.

### **Background:**

This activity is based on a short article about developing nations that stated “a study by the U.S. Central Intelligence Agency has isolated the factors that predict the collapse of nations. Among the predictors: high infant mortality, autocracy; poor democracies, protectionism; and a large number of young adults in the population.” (U.S. News and World Report, 2-12-95)

Using this as an international problem to research, students, working in groups, will culminate their study of developing and developed societies by charting and mapping these predictors, ultimately making their own predictions of “nations at risk” for their assigned region within Africa or Asia.

Leading up to this point, students will have already read, discussed, and completed activities on the following:

1. Economic systems—differences in agriculture (see reference to web site of “Mission Geography” listed in Materials below), manufacturing and services;
2. Types of government
3. Statistics related to standard of living (GDP, infant mortality, life expectancy, age groups)
4. Stages of population growth

This lesson plan uses ArcView software. The teacher needs to have a site license, have ArcView installed in a computer lab setting and lead the students through Module 1 so they have the basic skills for this program. If this software program is not available, see “Adaptations / Extensions” at the end of this lesson plan.

### **Materials Required:**

- ArcView software from ESRI Press

This software is a compilation of GIS lessons prepared for the teacher to use in the classroom. Here, it will be used to list the fields of information (GDP, infant mortality rate, age groups) necessary for this lesson and can produce choropleth maps (a web site example is listed below) to help students understand and analyze the data.

- Computers in a lab setting or multiple computers per classroom

Sign up for computer lab one to two weeks in advance. Three days in the computer lab is recommended. Internet access is required. Students may double up on computers if necessary.

[www.missiongeography.org](http://www.missiongeography.org) (background, **strongly recommended**)

Once at this site, on the left margin, click on “MG Materials”; scroll down to “Grade 9-12 Module 2. These three lesson plans are excellent, dealing with agriculture in developing and developed nations. These were used in the main unit before this culminating activity and are highly recommended for laying the foundation for this culminating activity.

[www.cia.gov/cia/publications/factbook/index.html](http://www.cia.gov/cia/publications/factbook/index.html) (required site)

Lists the vital statistics on **all** countries—GDP overall and per capita; infant mortality, government, etc. Disadvantage: one has to look up facts one country at a time.

[www.census.gov/ipc/www/idbpyr.html](http://www.census.gov/ipc/www/idbpyr.html) (required site)

Gives a current and projected population pyramid for each country.

[www.eia.doe.gov/emeu/iea/table2.html](http://www.eia.doe.gov/emeu/iea/table2.html) (helpful site)

Chart listing the overall GDP of the countries of the world. Disadvantage: no information for several countries.

[www.lib.utexas.edu/maps/world\\_maps/world\\_gdp96.jpg](http://www.lib.utexas.edu/maps/world_maps/world_gdp96.jpg) (helpful site)

OR <http://ucatlans.ucsc.edu/gdp/gdpmmap.html>--fits on screen better (helpful site)

These two sites are examples of choropleth maps that display international GDP statistics.

A site to help students gain a better perspective vis-à-vis developed / developing nations, is an audio version of the Saturday, June 8, 2002 National Public Radio, Weekend Edition interview with Kimeli Maiyomah. Kimeli is a Maasai warrior from Kenya who is studying medicine at Stanford University and was at the UN building in Manhattan on September 11, 2001. The internet route to get to this audio-only interview is as follows:

[www.npr.org/programs/wesat/index.html](http://www.npr.org/programs/wesat/index.html). Once here, click “Previous shows” in the right margin. Under the “2002” heading, click on June. Of the dates listed in June, click on June 08, 2002. Scroll about halfway down until the program name “Kenya Cows”

appears. Click and listen. "RealPlayer" is required for listening to the audio. Running time is about 6.5 minutes. It is possible to write or email NPR and get a written transcript from them for a fee.

- One or several copies of The Economist "World in Figures", 2001 pocket edition. This is an invaluable source of international statistics for economics, health, political issues, urbanization, environmental issues, transportation, education, to name a few. World rankings of "The Quality of Life", page 26 are especially helpful.
- One or several copies of a current world atlas like Goode's by Rand McNally
- Handouts

- 1) Statistics from G7 nations +... and current events nations
- 2) Blank chart to record data for assigned countries within specified region
- 3) Student Instructions Sheet
- 4) Grading rubric

#### **Procedures/Timetable:**

(This is presented in sketchy format so as not to be redundant; for full details, see "Student Instruction" pages)

#### **One week before**

- 1) Divide students into groups of 4-5
- 2) Each group is to collect three (total) newspaper / magazine stories about countries in "distress"— war, famine, disease, drought. Groups are to share these stories with class.

#### **One day before**

Each group will turn in a list of countries that their collected news stories feature. The teacher will use this to write in the statistics for five of these countries on the chart of the G7 +... nations

#### **Days 1 through 3**

- 1) Share the news stories about troubled countries: Each group will summarize their news stories for the class. As they do this, the teacher will write the names of the countries on the board. Follow up these summaries with students' questions and observations about the stories.

- 2) Charts and Information:

(a) [Download Statistics from G7 nations + current events nations](#)

(b) Blank chart for recording regional data (on back side of G7/current event nations' statistics)

(c) Student Instruction Sheet (contains list of web sites)

(d) Grading rubric.

- 1) Statistics chart of G7 and Current Events Nations

Facilitate discussion as students observe, analyze and contrast the statistics of the G7 +... nations with the nations just discussed from the news.

- 2) Computer work: Blank chart + list of web sites + list of nations...

Each group will have a list of 15-20 nations in Africa and Asia (this is a one-

semester course focusing on the regions of the Eastern Hemisphere). In the computer lab, using the listed web sites, each group will fill in the statistics for their assigned countries.

Once they have filled in the paper chart, they are to use the ArcView program to enter the chart data in order to make a choropleth map for each of the factors (see end of lesson plan for program instructions to do this).

After charting information, listen to the program called “Kenya Cows” from National Public Radio Weekend Edition Saturday, June 8, 2002 program.

### ***Days 4 and 5***

#### 3) Predicting international “distress” areas; ensuing recommendations

From their chart, the group is to agree on three countries in their region that have the least favorable combination of statistics.

Looking at the statistics of these three countries, the group will brainstorm various types of aid or cultural exchange that could help in the areas of weakness. They are to briefly research each country’s major needs. The group will write a proposal that includes three recommendations

which they believe will benefit the three countries.

#### 4) Class presentation by each group

On outline map of the countries of the world (overhead transparency suggested), each group is to...

a) Outline the extent of their region

b) Color in the three countries they predict are most at risk in their region.

Display the choropleth maps of their region and share recommendations, explaining why they believe these will be effective in addressing the problems.

#### 5) Essay assignment (homework)

Each person will write an essay (see rubric for expectations) that responds to the following:

It is known that certain qualities must be achieved in a society for the people within it to live relatively peaceful, healthy and productive lives. The level of economic productivity, length of life, the survival of infants/children, and literacy rates are some of the basic qualities that lay the foundation for societal well being. What relationship should developed nations have with developing nations, especially in these areas that produce quality of life? Should we provide aid? If so, what kind and to what extent? If not, why? How does the instability of a far-away nation affect us?

### **Adaptations:**

Since many teachers may not have ArcView software, this lesson is easily adaptable to paper maps. Once the chart of statistics (for the 15-20 countries) is filled in, students will produce an enlarged map of their region (use of copier enlarging feature, or tracing using overhead transparency map and paper—held with magnets—on the chalkboard). Five (machine) copies of this enlarged map need to be made. Students will divide the statistics for each factor (GDP, life expectancy, infant mortality rate, type of government,

and % of young adults) into levels or categories, giving each level a different highly-contrasting color. Color gradation from red to yellow is recommended. Each map must have a key. Thus they will hand-make their five choropleth maps. Again, see <http://ucatlas.ucsc.edu/gdp/gdpmap.html> for an example of a choropleth map.

### **Assessment**

[Download Assessment Sheet](#)

***World Geography Student Instruction Sheet for Nations at Risk: Developed / Developing Nations—Statistics that make a difference***

[Download Instruction Sheet](#)

***Suggested Country / Regional Lists***

[Download Country List](#)