Humans and Global Change

Name: _____

Period: _____

Objective: The goal of this project is to **design**, **evaluate**, AND **refine** a solution for reducing the impacts of human activities on the environment. You will **select a country** to research and design your solution based on the environmental impact of that country. Your presentation may either be a slideshow, or a poster, follow the grading rubric to insure all necessary elements are included.

Task 1: Group Selection

1. Select a group of **FOUR** people. Yes, you must have **FOUR** or <u>less</u>, no more than **FOUR.**

Task 2: Country Selection

1. As a group, select a country that you would like to research. You may **NOT** choose the United States.
2. When you have decided, sign up with the teacher, **there will only be 1 group allowed per country**.

ON YOUR POSTER OR IN YOUR PRESENTATION SLIDE MAKE SURE TO INCLUDE: the country as part of your title

Country**: _____**

Task 3: Country Culture Research

The first part of this project is to get to know the country you have chosen to research. Use the following questions as a *GUIDE* of what to research. You are not expected to include ALL of this information on your poster, or on the culture slide of your presentation. **You ARE expected to demonstrate an understanding of important aspects of the culture, economy, resources, politics, and conflicts of this country.**

CULTURE

1. What is the population of the country?
2. Where does the majority of the population live in rural areas, or urban areas?
3. What is the birth rate in the country?
4. **In which stage of the demographic transition model is this country currently?**
5. **Has this country exceeded its carrying capacity, if so how is this being addressed?**
6. What is the typical family structure in this country?
7. What cultural practices are shared by a majority of the population?
8. **Are there any cultural practices that require the use of extra resources?**
9. **Are there any cultural practices that conserve resources?**
10. What cultural expectations are there surrounding education, and the roles of women and children?

ECONOMY and RESOURCES

11. What products are imported from other countries? What products are exported to other countries?
12. How does this country access water and food? How does it produce energy? (coal, nuclear, etc.)
13. **Are any resources overused?**
14. What is the average ecological footprint of a person in this country?

POLITICS and CONFLICT

15. Are there any political situations that affect the environment or natural resources of this country?
16. **What human activities in this country negatively impact the environment?**

ON YOUR POSTER OR IN YOUR PRESENTATION SLIDE MAKE SURE TO INCLUDE: an age structure diagram, the demographic transition stage, and any information that is important to consider when studying the human impact of this particular country

Task 4: Design a Solution

1. Select ONE human activity from this country that negatively impacts the environment.
2. List several social and cultural practices of the people of your country that contribute to the issue.

3. Design a solution to reduce the impact of this activity, include at least 3 detailed steps the country could take as part of this solution.

4. Explain why this solution would work to reduce human impact by describing how this solution will decrease the negative effects of human activity. Describe predicted outcomes of this solution if it were to be implemented.

5. Describe constraints of your solution (factors that would make the solution challenging) **OTHER THAN COST.**

6. Consider and list at least 2 unintended consequences of your proposed solution (possible side effects).

ON YOUR POSTER OR IN YOUR PRESENTATION SLIDE MAKE SURE TO INCLUDE: a description of the solution, an explanation of why it would work, challenges of implementing the solution, and possible unintended consequences

Task 5: Evaluate an Existing Solution

1. Research several solutions for this human activity that are used in **OTHER** countries.

2. Select ONE solution that may work the best for your focus country, describe the solution, and describe how effective it has been in the country/ies that use it. (How does it help the environment, and what positive impacts has it had?)

3. Justify why this solution would work to reduce human impact better for your focus country than the other solutions you researched. Consider the culture, economics, and politics of the country.

ON YOUR POSTER OR IN YOUR PRESENTATION SLIDE MAKE SURE TO INCLUDE: a description of the solution, an explanation of its effectiveness, and an explanation of why it is the best existing solution for your focus country including cultural details

Task 6: Refine a Country-specific Solution

There is no perfect solution to addressing the impact of human behavior on the environment and biodiversity. Solutions must inspire humans to change their behavior. See Figure 1. For this reason it is important to consider how to make environmental solutions as user-friendly as possible. The following are guiding questions to help you brainstorm how to make the most effective solution for your focus country.

Figure 1. It starts with YOU.

1. Considering the solution you designed and the solution you researched, and describe a solution that you feel would be the most effective for your focus country (this can be your solution, the researched solution, or a combination).

2. What objections might people in the country give to your solution, and how would you address them?

3. Can you prioritize the steps of your solution? Which steps would have to happen before change can occur?

4. Can you identify trade-offs or compromises that would have to be made to increase buy-in from the people?

5. How can you get the people of your country to buy-into your solution? What would you do differently than has already been tried?

ON YOUR POSTER OR IN YOUR PRESENTATION SLIDE MAKE SURE TO INCLUDE: the best solution for your focus country, explain the impact the solution will have on the people of the country, and methods for increasing buy-in

Grading Rubric:

Period #: _____   **Names:** _____

	No Effort - 0	Minimal - 1	Beginning - 2	Proficient - 3	Excellent - 4
Cultural Competency	Required information is missing.	Age structure diagram and demographic transition stage are included.	Age structure diagram and demographic transition stage are included. Cultural practices are not clearly discussed.	Age structure diagram and demographic transition stage are included. Relevant cultural practices that are important to consider for this country are discussed, though level of understanding is unclear.	All information is included, detailed, and accurate. Demonstrates clear understanding of the age structure, demographic transition stage, natural resources and relevant cultural practices that are important to consider when studying this particular country.
Design a Solution	Required information is missing.	Designs a solution for reducing impact, however steps are not clearly detailed, and explanation of why the solution works is not given.	Designs a solution for reducing impact, however steps are not clearly detailed, OR explanation of why the solution works is not given.	The solution is clearly described, including necessary steps to be taken. Clear description of the ways that the solution will decrease the negative effects of human activity is given.	The solution is clearly described, including necessary steps to be taken. Clear description of the ways that the solution will decrease the negative effects of human activity is given. Possible challenges to implementing the solution, and consequences of the solution are described.
Evaluate an Existing Solution	Required information is missing.	Describes a researched solution for reducing impact, but explanation of why the solution works is not given.	Describes a researched solution for reducing impact, but explanation of why the solution works is incomplete or unclear.	Describes a researched solution for reducing impact, an explanation of why the solution works is given, but how the solution would work in the focus country is not described.	Describes a researched solution for reducing impact, an explanation of why the solution works is given, and clear understanding of how the solution would work in the focus country is described including cultural details.
Refine a Country Specific Solution	Required information is missing.	Describes the best possible solution for the focus country, but understanding of how the solution will impact the people and culture of the country is unclear.	Describes the best possible solution for the focus country and shows understanding of how the solution will impact the people and culture of the country. Does not describe how to inspire people to buy-in to solution.	Describes the best possible solution for the focus country, including how the solution will reduce human impact. Shows understanding of how the solution will impact the people and culture of the country. Attempts to describe how to inspire people to buy-in to solution.	Describes the best possible solution for the focus country, including how the solution will reduce human impact. Shows understanding of how the solution will impact the people and culture of the country. Demonstrates clear understanding of how to inspire people to buy-in to solution.
Presentation	No sources are cited.	At least one source is cited.	At least two sources are cited.	Multiple sources are cited.	
	No images are included.	At least one image is included.	At least two images are included.	Multiple images are included.	
	Presentation is unclear.	Presentation is somewhat neat.	Presentation is neatly arranged.	Presentation is neatly arranged, and aesthetically pleasing.	
				Category Total:	
TOTAL					**/25**