2015 ICM
Problem D

Is it sustainable?

Problem background

One of the largest challenges of our time is how to manage increasing population and consumption with the earth's finite resources. How can we do this while at the same time increasing equity and eradicating poverty? Since the beginning of the modern environmental movement in the 1960's, balancing human needs with the earth's health has been a topic of considerable debate. Are economic development and ecosystem health at odds? In order to reconcile this difficult balance, the concept of sustainable development was introduced in the 1980's.

Sustainable development is defined by the 1987 Brundtland Report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Since its conception, sustainable development has become a goal for international aid agencies, planners, governments, and non-profit organizations. Despite this, striving towards a sustainable future has never been more imperative. The United Nations (UN) predicts the world's population will level at 9 billion people by 2050. This, coupled with increased consumption, places a significant strain on the earth's finite resources. Understanding that the earth is a system that connects both time and space is critical to sustainable development. Development must focus on needs (e.g., reducing the vulnerability of the world's poor) and limitations (e.g., the environment's ability to detoxify wastes). In 2012, the UN conference on sustainable development recognized that: "that poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development." Decreasing personal poverty and vulnerability, encouraging economic development, and maintaining ecosystem health are the pillars of sustainable development.

Problem statement

The International Conglomerate of Money (ICM) has hired you to help them use their extensive financial resources and influence to create a more sustainable world. They are particularly interested in developing countries, where they believe they can see the greatest results of their investments.

Task 1: Develop a model for the sustainability of a country. This model should provide a measure to distinguish more sustainable countries and policies from less sustainable ones. It can also serve to inform the ICM on those countries that need the most support and intervention. Some factors may include human health, food security, access to clean water, local environmental quality, energy

access, livelihoods, community vulnerability, and equitable sustainable development. Your model should clearly define when and how a county is sustainable or unsustainable.

Task 2: Select a country from the United Nations list of the 48 Least Developed Countries (LDC) list (http://unctad.org/en/pages/aldc/Least%20Developed%20Countries/UN-list-of-Least-Developed-Countries.aspx). Using your model and research from Task 1, create a 20 year sustainable development plan for your selected LDC country to move towards a more sustainable future. This plan should consist of programs, policies, and aid that can be provided by the ICM within a country based on their demographic, natural resources, economic, social and political conditions.

Task 3: Evaluate the effect your 20-year sustainability plan has on your country's sustainability measure created in Task 1. Predict the change that will occur over the 20 years in the future by implementing your plan in your evaluation. Based on the selected country, you may need to consider additional environmental factors such as climate change, development aid, foreign investment, natural disasters, and government instability. The ICM would like to get the "most bang for their buck", so determine which programs or policies produce the greatest effect on the sustainability measure for your country. Identifying highly effective strategies to be implemented is the ultimate goal of the ICM to create a more sustainable world.

Task 4: Write a 20-page report (summary sheet does not count in the 20 pages) that explains your model, your sustainability measure, your sustainability development plan, and the effect of your plan based on your model and the country's environment. Be sure to detail the strengths and weaknesses of the model. The ICM will use your report to invest in sustainability development intervention strategies for specific LDC countries. Good luck in your modeling work!

Possible Resources

UN sustainable development knowledge platform (http://sustainabledevelopment.un.org)

Ecological footprint (http://www.footprintnetwork.org/en/index.php/GFN/page/footprint_basics_overview/)

World Bank Data (http://data.worldbank.org)

International Institute for Sustainable Development (https://www.iisd.org/sd/)

References

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Other useful Sources

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