2021/1/23 Problems





# Problem Title: The Place I Called Home...

Year: 2020

Student Level: Undergraduate

Source: ICM

Commentary: Yes (1)
Student Papers: Yes (6)

#### **Problem**

Researchers have identified several island nations, such as The Maldives, Tuvalu, Kiribati, and The Marshall Islands, as being at risk of completely disappearing due to rising sea levels. What happens, or what should happen, to an island's population when its nation's land disappears? Not only do these environmentally displaced persons (EDPs) need to relocate, but there is also risk of losing a unique culture, language, and way of life. In this problem, we ask you to look more closely at this issue, in terms of both the need to relocate people and the protection of culture. There are many considerations and questions to address, to include: Where will these EDPs go? What countries will take them? Given various nations' disproportionate contributions to the green-house gasses both historically and currently that have accelerated climate change linked to the rising seas, should the worst offenders have a higher obligation to address these issues? And, who gets a say in deciding where these nationless EDPs make a new home 欽◆ the individuals, an intergovernmental organization like the United Nations (UN), or the individual governments of the states absorbing these persons? A more detailed explanation of these issues is given in the <u>Issue Paper</u>.

As a result of a recent UN ruling that opened the door to the theoretical recognition of EDPs as refugees, the International Climate Migration Foundation (ICM-F) has hired you to advise the UN by developing a model and using it to analyze this multifaceted issue of when, why, and how the UN should step into a role of addressing the increasing challenge of EDPs. The ICM-F plans to brief the UN on guidance for how the UN should generate a systemized response for EDPs, especially in consideration of the desire to preserve **cultural** heritage. Your assignment is to develop a model (or set of models) and use your model(s) to provide the analysis to support this briefing. The ICM-F is especially interested in understanding the scope of the issue of EDPs. For example, how many people are currently at risk of becoming EDPs<sup>[1]</sup>; what is the value of the cultures of at-risk nations; how are those answers likely to change over time? Furthermore, how should the world respond with an international policy that specifically focuses on protecting the rights of persons whose nations have disappeared in the face of climate change while also aiming to preserve culture? Based on your analysis, what recommendations can you offer on this matter, and what are the implications of accepting or rejecting your recommendations?

This problem is extremely complex. We understand that your submission will not be able to fully consider all of the aspects

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described in the Issue Paper beginning on page 3. However, considering the aspects that you address, synthesize your work into a cohesive answer to the ICM-F as they advise the UN. At a minimum, your team's paper should include:

- An analysis of the scope of the issue in terms of both the number of people at risk and the risk of loss of culture;
- Proposed policies to address EDPs in terms of both human rights (being able to resettle and participate fully in life in their new home) and cultural preservation;
- A description of the development of a model used to measure the potential impact of proposed policies;
- An explanation of how your model was used to design and/or improve your proposed policies;
- An explanation, backed by your analysis, of the importance of implementing your proposed policies.

The ICM-F consists of interdisciplinary judges including mathematicians, climate scientists, and experts in refugee migration to review your work. Therefore, your paper should be written for a scientifically literate yet diverse audience.

Your submission should consist of:

- One-page Summary Sheet
- Table of Contents
- Your solution of no more than 20 pages, for a maximum of 22 pages with your summary and table of contents.

NOTE: Reference List and any appendices do not count toward the page limit and should appear after your completed solution. You should not make use of unauthorized images and materials whose use is restricted by copyright laws. Ensure you cite the sources for your ideas and the materials used in your report.

#### **Glossary**

**Environmentally displaced persons (EDPs):** people who must relocate as their homeland becomes uninhabitable due to climate change events

**Cultural heritage:** the ways of living of a group or society passed through generations to include customs, practices, art. and values.

[1] There are multiple estimates for the current and predicted number of climate refugees in the existing literature, but they are vastly different. Therefore, you need to support your conclusions with analysis based on your own model(s), either building off of existing analysis or with a new and independent analysis.

# **Commentary**

<u>Judges' Commentary: The Place I Called Home...</u>

Various COMAP Inc.

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# **Student Papers**

# Team 2005623: The Place I Called Home...

Beijing Normal University, China

## Team 2006291: The Place I Called Home...

South China University of Technology, China

## Team 2009139: The Place I Called Home...

Xi'an Jiaotong University, China

## Team 2013233: The Place I Called Home...

Beijing Forestry University, China

#### Team 2013733: The Place I Called Home...

Shanghai University of Finance and Economics, China

## Team 2013772: The Place I Called Home...

Xi'an Jiaotong University, China