Problem Chosen	2020	Team Control Number
F	MCM/ICM	2013733

Summary Sheet

2020

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Summary Sheet

Comprehensive policy models developed for EDPs

Abstract

The global climate change has become increasingly important, therefore this paper contributes to proposing propriate policies. In the first part, we build two models that calculate the number of people at risk from two aspects. The sea level rise model forecasts the number under the direct impact of rising sea. The perceptional environment model is constructed to measure intangible influence by climate change. To understand the risk of culture loss, we construct a stochastic culture index model to simulate the culture development process.

In the second part, we propose our policies on the basis of part1. We develop three models to help carry out our policies. The decision-making model provides various solutions for different people affected by climate disasters. The matching model chooses best matching areas for EDPs. The charging model allocates the cost of disaster management to each country

The third part evaluates the effect of our policies proposed in part2 from economics and culture perspectives. This part discusses some further influence ignored in policy proposing process. We adopt Specific-Factor Model and find that the input of EDPs will expand the local industries and lower average wage in the short-run. In the long run, it will cause the growth of low-end industries and the shrink of high-end industries. As for the culture impact, we explain the three potential outcomes for the immigrant culture and give our corresponding measures for each scenario.

In the last part, based on our model analysis and policies, we comprehensively evaluate the advantages and highlights of our polices. Balance between individual-freedom and order, human rights, fairness, Quantification of multiple factors, economic and cultural impact, responsibility sharing and the possibility of extreme weather are all been covered.

Key words: Markov-Chain, Specific-Factor model, charging model, I