ASSESSMENT ADAPTIVE CAPACITY OF CLIMATE CHANGE IN INDONESIA TO MAINTAIN FOOD SECURITY

By Matthew Rafael Rajagukguk

Abstract

Indonesia is an agricultural country, where the agricultural sector plays an important role in supporting the national economy. The contribution of this sector is very large in supporting the second goal of the Sustainable Development Goals (SDGs) program, namely eliminating hunger, increasing food security, improving nutritional quality, and encouraging sustainable agricultural practices. However, the agricultural sector in Indonesia also faces major challenges due to climate change, such as changes in rainfall patterns, increasing temperatures and increasingly frequent natural disasters. Food security is not only influenced by the availability of food resources, but also the adaptive capacity of a region in facing climate change. The aim of this research is to look at the ranking of factors that influence food security based on changes in temperature, drought & land fires, pollution, floods, irrigated rice fields, number of farmers, agricultural GRDP, and number of markets. This research uses the Multi Criteria Decision Making "PROMETHEE" method. The objects used are 34 provinces in Indonesia. Based on the results of the research that has been carried out, it can be concluded that of the 34 provinces that have been ranked through outranking, there are 17 provinces that have a positive Phi value and 17 provinces have a negative Phi value.

ASSESSMENT ADAPTIVE CAPACITY PERUBAHAN IKLIM DI INDONESIA GUNA MEMPERTAHANKAN KETAHANAN PANGAN

Oleh Matthew Rafael Rajagukguk

Abstrak

Indonesia adalah negara agraris, di mana sektor pertanian memegang peran penting dalam mendukung perekonomian nasional. Kontribusi sektor ini sangat besar dalam mendukung tujuan kedua dari program Sustainable Development Goals (SDGs), yakni menghapus kelaparan, meningkatkan ketahanan pangan, memperbaiki kualitas nutrisi, dan mendorong praktik pertanian yang berkelanjutan. Namun, sektor pertanian di Indonesia juga menghadapi tantangan besar akibat perubahan iklim, seperti perubahan pola curah hujan, peningkatan suhu, dan bencana alam yang semakin sering terjadi. Ketahanan pangan tidak hanya dipengaruhi oleh ketersediaan sumber daya pangan, tetapi juga kemampuan adaptasi (*adaptive capacity*) suatu wilayah dalam menghadapi perubahan iklim. Tujuan dari penelitian ini adalah untuk melihat pemeringkatan faktor-faktor yang mempengaruhi ketahanan pangan berdasarkan perubahan suhu, kekeringan & kebakaran lahan, polusi, banjir, lahan sawah irigasi, jumlah petani, PDRB pertanian, dan jumlah pasar. Penelitian ini menggunakan metode *Multi Criteria Decision Making* "PROMETHEE". Objek yang digunakan adalah 34 provinsi di Indonesia. Berdasarkan hasil penelitian yang telah dilakukan, dapat disimpulkan dari 34 provinsi yang telah diurutkan melalui *outranking*, terdapat 17 provinsi yang memiliki nilai Phi positif dan 17 provinsi memiliki nilai Phi negatif.

Kata Kunci: *Adaptive Capacity*, Ketahanan Pangan, Perubahan Iklim, PROMETHEE