RISK ASSESSMENT ON LOGISTICS AND BCP ALONG THE SOUTHERN ECONOMIC CORRIDOR (SEC)

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1. INTRODUCTION

As globalization progresses, the exchange of goods becomes easier, making countries with better connectivity more appealing to international enterprises. Established in 1992 as a part of the Greater Mekong Subregion (GMS) program, the Southern Economic Corridor (SEC) has received much attention as a logistics hub. For instance, a Japanese retailer Aeon planned to offer international logistics services in Cambodia, driven by Southeast Asia's expanding trade and cross-border e-commerce [1]. As a result, freight transport demand among countries of along the SEC is expected to grow in the future. However, while already being vulnerable to natural disasters like flood, countries along the SEC have gone through drastic socio-economic and political changes and rapid urbanization since the 1990s. These changes lead to the increase in population and alter land cover which is closely related with flooding [2]. Therefore, this study aims to assess logistics and business continuity plan (BCP) risks along the SEC by focusing on SWOT analysis, population and land cover change over the last 30 years.

2. METHODOLOGY AND RESULTS

SWOT analysis framework was adapted to evaluate the internal strengths and weaknesses and the external opportunities and threats of the SEC using data from international organizations and local authority websites. Two influential factors of flood runoffs: population and land cover were further analyzed. LandScan Global Population datasets from 2000-2020 at 1km resolution were used to map population distribution over the target area. As for land cover change analysis, ESA global land cover maps from 1992-2020 at 300m resolution, reclassified into 9 Intergovernmental Panel on Climate Change (IPCC) classes, were utilized.

Table 1. SWOT analysis results summary

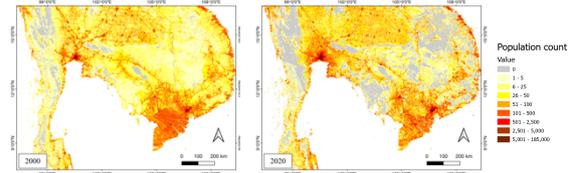| Strengths	Weaknesses
• Population • Economy • Connectivity	• Limited logistics and infrastructure quality • Prone to climate-related disasters
Opportunities	**Threats**
• Increase in foreign direct investment • Development in infrastructure	• Socio-economic changes and political turmoil • Climate-induced disasters

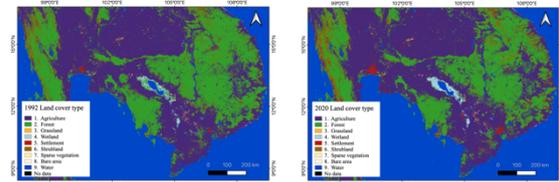Figure 1. Population distribution (2000-2020)

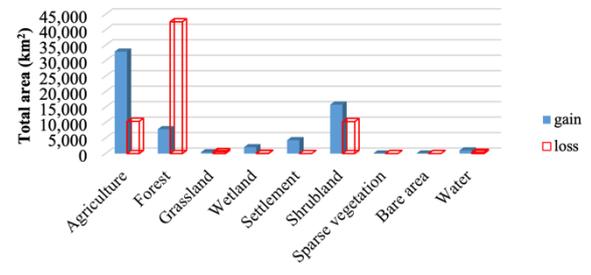Figure 2. Land cover change (1992-2020)

Figure 3. Total area of land cover change (1992-2020)

3. CONCLUSIONS

In this study, SWOT analysis, population and land cover change analysis were applied to assess logistics and BCP risks along the SEC. The results show a higher rate of population growth at approximately 58.1% along the main roads of the SEC and significant forest cover loss between 1992-2020, which could have an impact on flood runoffs and disrupt logistics system. Transport planners and business operators can benefit from these results by taking into account these factors in future risk management and business continuity planning.

REFERENCES

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