PAHARUDDIN. Application of Geographic Information System to Coastal Vulnerability Assessment in the North Coast Jakarta. Under supervisor by SETYO BUDI SUSILO and DJISMAN MANURUNG.

Coastal zone is vulnerable to sea level rise due to global warming. Coastal area in the North Coast of Jakarta is also vulnerable to the impact that could affect the sustainability of coastal zone management. A study has been conducted on this area to identify the level of coastal vulnerability index spatially (5 coastal districts) and determine the coastal vulnerability index and the predicted value of vulnerability in the future. Components of vulnerability following the division of Polsky, namely: exposure, sensitivity and adaptive capacity. Analysis of components based on data directly observable dimensions of vulnerability and the parameter value is transformation of quantitative and qualitative into scoring value of the coastal vulnerability index. The study shows that Coastal Vulnerability Index in the five coastal districts is moderate, namely: Koja (13.15), Cilincing (11.73), Tanjung Priuk (10.00), Pademangan (9.86) and Penjaringan (9.78). Prediction the vulnerability dynamic the next 10 years, 3 districts will experiences a high vulnerability (Penjaringan, Pademangan, and Cilincing) and 2 districts will experiences a very high vulnerability (Tanjung Priuk, and Koja).

Key words: coastal, vulnerability, coastal districts of Jakarta