

A COMPARATIVE ANALYSIS OF WATER QUALITY OF PALABUHANRATU BAY AND TANGERANG COASTAL ZONE USING POLLUTION INDEX¹



Yusli Wardiatno^{2*}, Hefni Effendi²⁾, Majariana Krisanti²⁾, Sigid Hariyadi²⁾, Ali Mashar²⁾, Yuyun Qonita²⁾

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² Department of Aquatic Resources Management, Faculty of Fisheries and Marine Sciences, Bogor Agricultural University (IPB), Indonesia

^{*} Correspondence: wardiatno@gmail.com

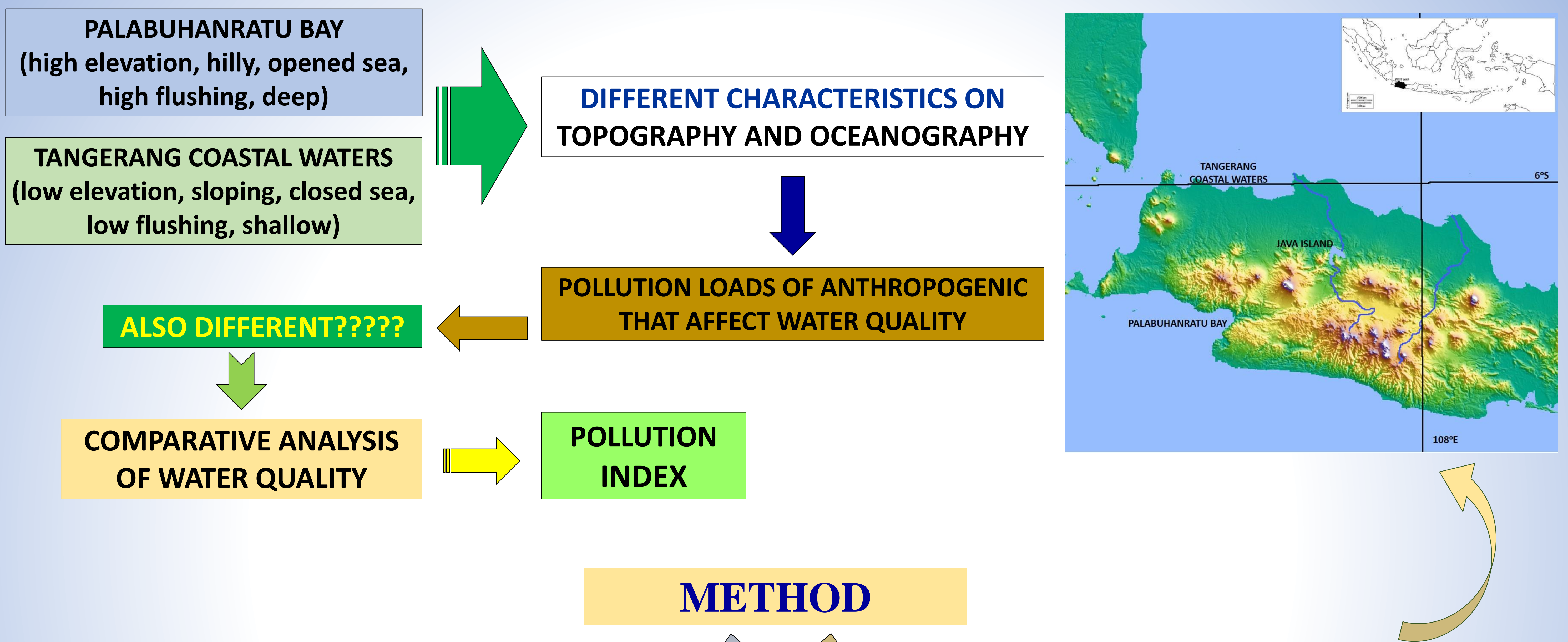


ABSTRACT

Palabuhanratu bay and Tangerang coastal waters have different characteristics on topography and oceanography. Thus, pollution loads of anthropogenic that affect water quality of both regions are also different, so did comparative analysis. Research was conducted in June 2016 in Palabuhanratu and June 2013 in Tangerang waters. Number of sampling stations are five stations in Palabuhanratu bay and 3 zones in Tangerang waters with five stations per zone. Zone I: 0-1 mile, Zone 2: 2-3 miles, and Zone 3: 4 miles from coastal. Based on pollution index (PI), water quality in Palabuhanratu bay was good condition, and in Tangerang waters was light polluted in all zones. Pollution was mainly caused by pollution loads from anthropogenic. Difference of topography and oceanography characteristics can result difference on water quality.

Key words: anthropogenic loads, Palabuhanratu bay, pollution index, Tangerang waters, water quality

BACKGROUND



METHOD

TIME: Dry season → June 2016 in Palabuhanratu Bay and June 2013 in Tangerang Coastal Waters

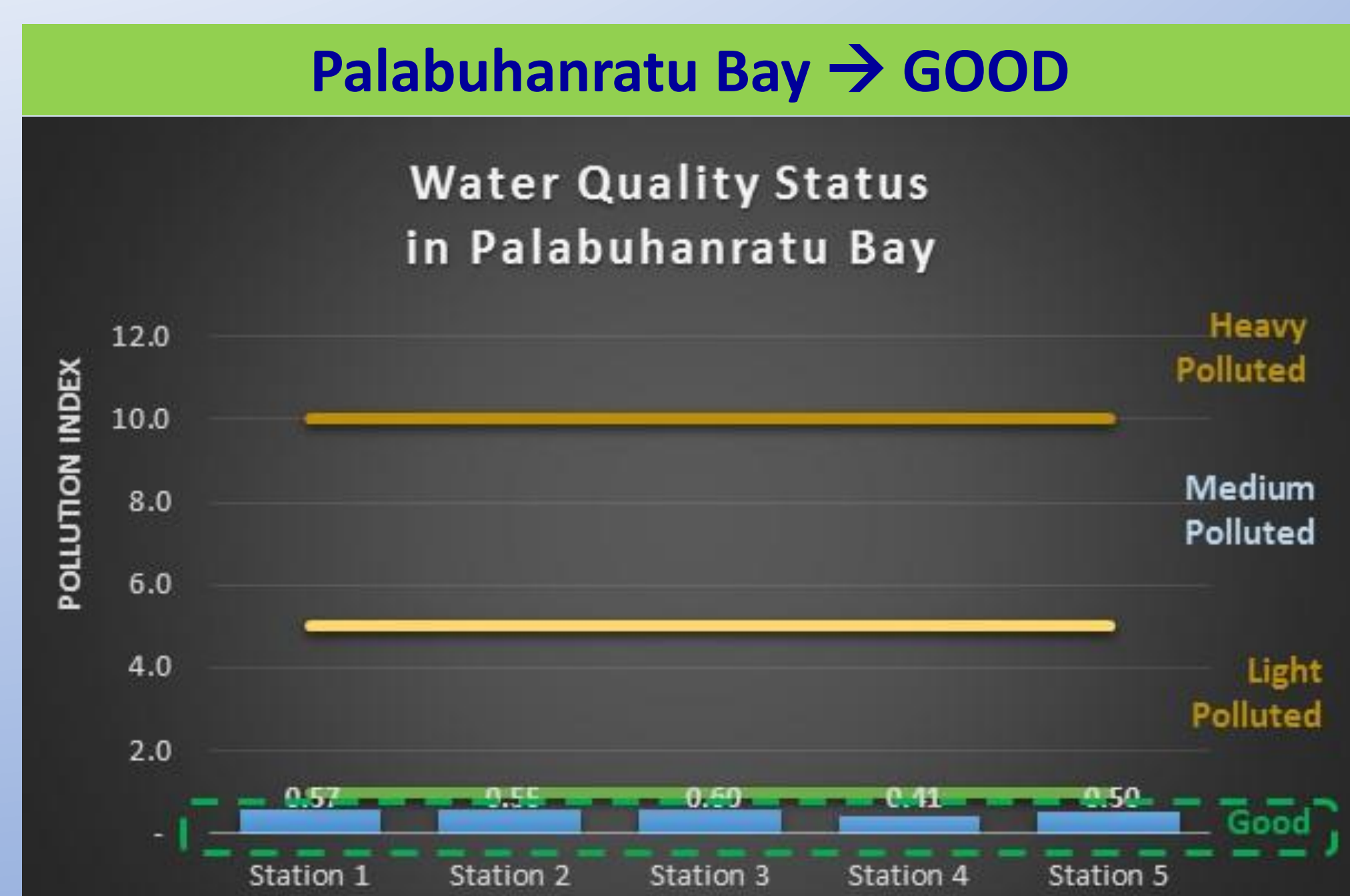
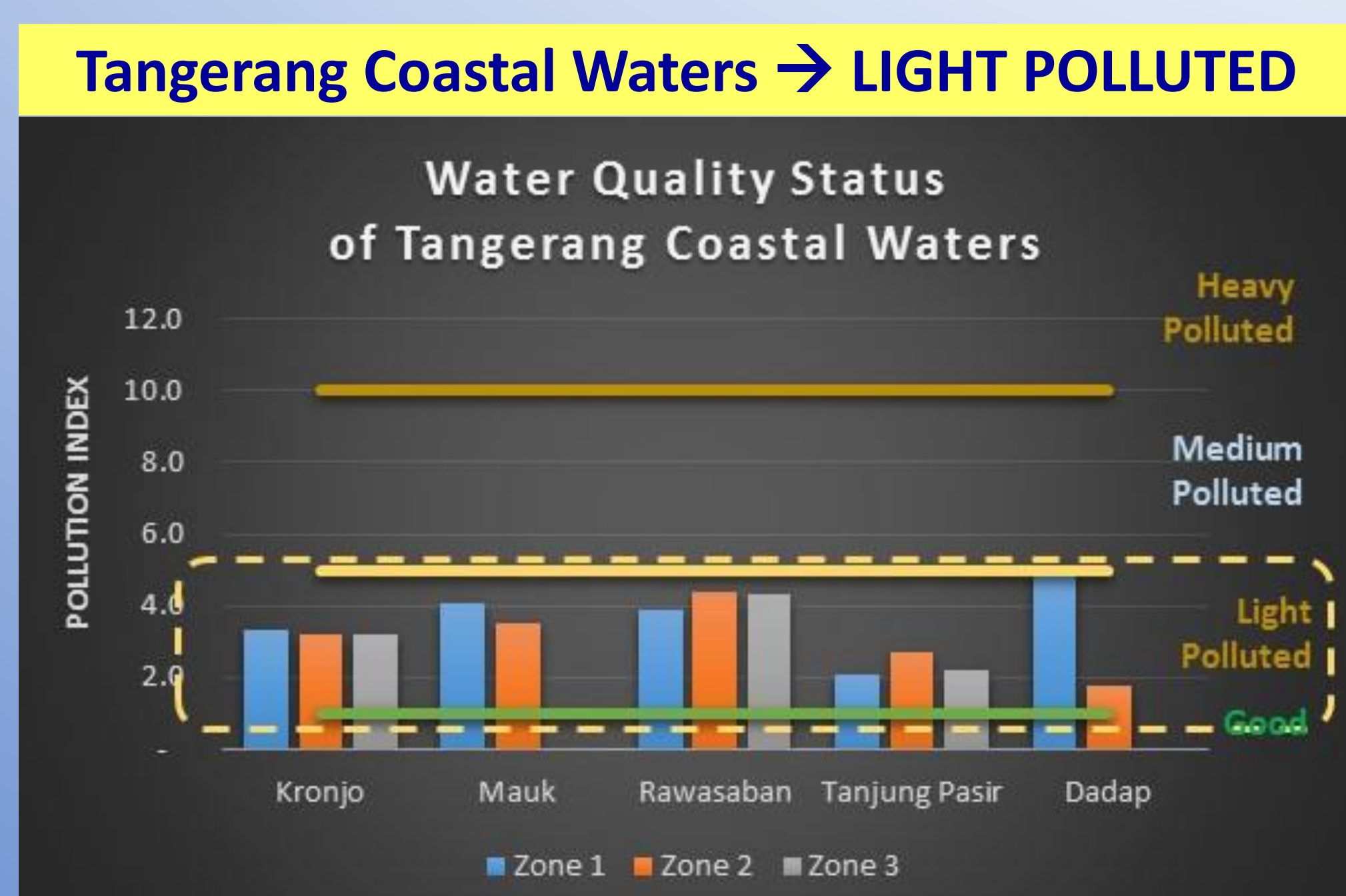
NUMBER OF WATER SAMPLE: Five samples in Palabuhanratu bay and 3 zones with five samples respectively in Tangerang coastal waters (Zone I: 0-1 mile from coastal, Zone II: 2-3 miles from coastal, Zone III: 4 miles from coastal)

LOCATION: Palabuhanratu Bay (Southern Coastal of Java) and Tangerang Coastal (Northern of Java)

WATER PARAMETERS: Physical, chemical, and heavy metal parameters based on KepmenLH of Indonesian Government No. 51/2004 Appendix 3

ANALYSIS: Measure seawater quality and compared with seawater quality standard from KepmenLH of Indonesian Government, and then determined Pollution Index (PI) of each study area. Formulation and criteria of PI based on KepmenLH of Indonesian Government No. 115/2003 about guidance to determine water quality status.

RESULT



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CONCLUSION

Water quality in Palabuhanratu Bay better than Tangerang coastal waters. Difference of topography and oceanography characteristics can result difference on water quality.