

## Particulate organic carbon distribution and primary production of Java-Sumatra upwelling system of Eastern Indian Ocean

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The Eastern Indian Ocean region, particularly in south of Java and west of Sumatra, has been known for its periodical upwelling. The upwelling occurs during southeast monsoon period from June to October. During that time the upwelling center moves westward alongside the southern Java coast and then northward to the equator alongside western Sumatra waters. Upwelling will trigger the enhancement of primary productivity and then followed by changes on the organic carbon fixation in the ocean. Although the upwelling system in this area and its effect on the primary productivity are widely known, but a systematic study on its impact on the organic carbon variability is rarely conducted. We plan this research to find how the distribution of the particulate organic carbon related to the primary productivity and upwelling variability. It will be conducted in August –September (following the upwelling period) as part of the RV Hakuho-maru research cruise. The area observed is Java-Sumatra upwelling area. Seawaters will be sampled for the chlorophyll and particulate organic carbon content. With added satellite data, the upwelling strength can be determined and then correlated with the primary productivity and vertical-horizontal distribution of the particulate organic carbon.

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