Eutrophication in the coastal waters of Southeast Asia:

A collaborative NANO Regional Research Project
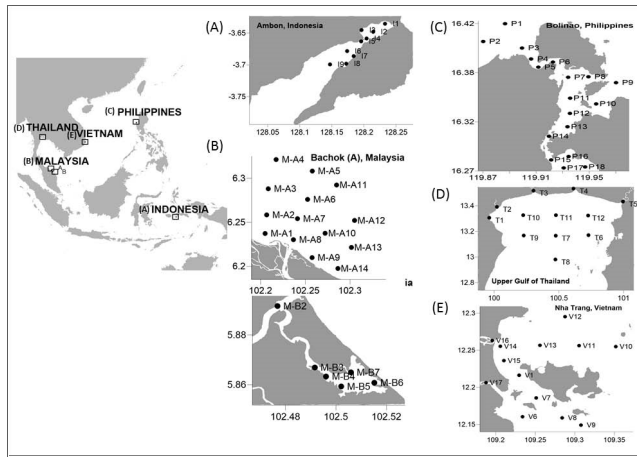
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Objective:

- To determine the level of eutrophication in each study site and evaluate the application of UNTRIX (an index of eutrophication) and the application of the hydrodynamic model Delft 3D for estimating water residence time.
- To initiate an environmental monitoring system of coastal waters, expanding on methods applied by the NANO SEA Regional Research group.
- To strengthen human capacity for environmental management and to expand the NANO network in SEA countries by knowledge-transfer.

Study Areas:
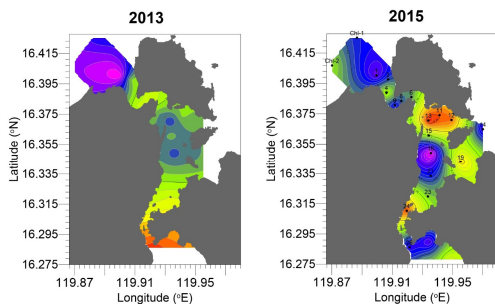## Indonesia, Malaysia, Thailand, Philippines, Vietnam

Field Observations

To measure in situ water properties and collect water samples for nutrient analysis in the laboratory during dry and wet seasons of our countries.
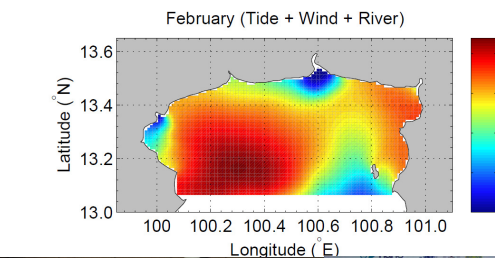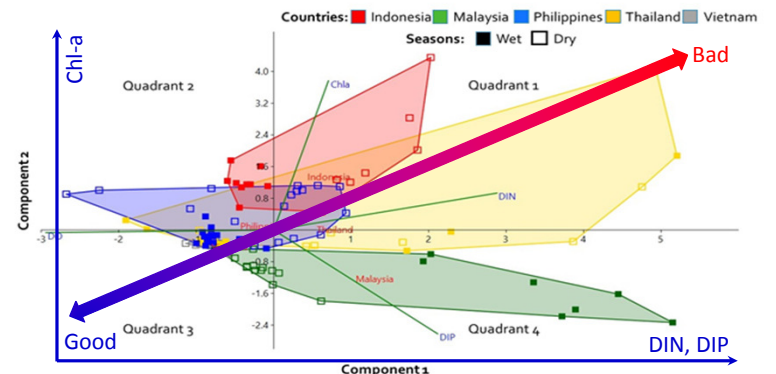

UNTRIX and Eutrophication Assessment

$$UNTRIX = (Log10(Chl\text{-}a * aD\%O * DIN * DIP))$$

is used to asscess eutrophic conditions in each study area.

Fishkill Area was highly characterized with highest eutrophication indices in Bolinao

February (Tide + Wind + River)

Residence time assessment using Delft 3D model for UGoT

Classification of water quality by using UNTRIX

Collaborations