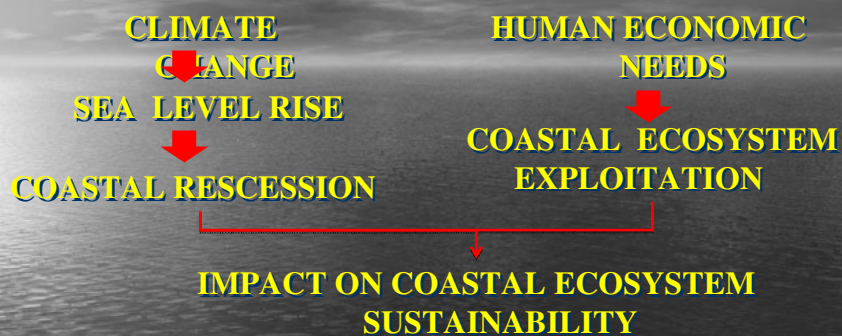


MEASURING THE IMPACT OF SEA LEVEL RISE ON THE DELTA:

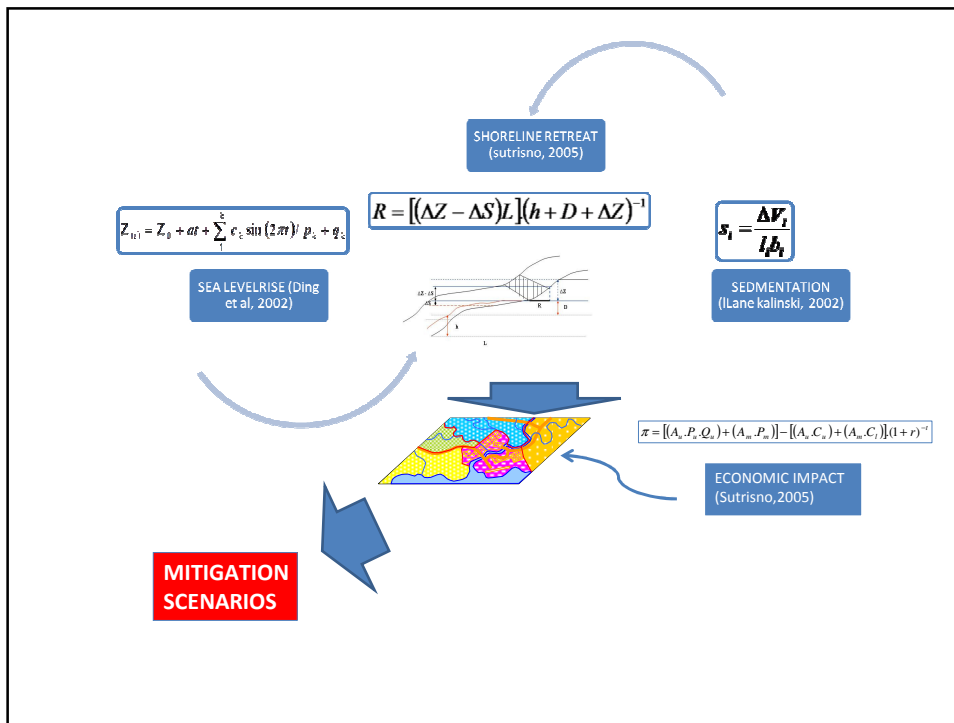
A SPASIAL MODELLING APPROACH

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BACKGROUND

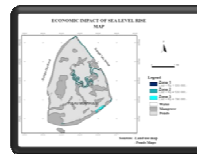
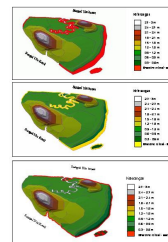


Develop a shoreline retreat model
To predict the future impact of SLR and mitigation scenarios



Using small island in Mahakam Delta

- for the next 10 years there will be 1.83 – 41.57 m shoreline retreat within the delta coast.
- Impact on the lost of 1.90 – 45.63 ha shrimp ponds and residential area or
- about 1.848 USD – 40.341 USD lost



CONCLUSION

- The model can be applied for future prediction of SLR to the coastal recession
- Maintaining the ecological function of the coastal system is a part of SLR mitigation and adaptation
- The policy of silvo-fisheries scenarios with various mangrove coverage percentages, show the best land use management of the delta to adapt the impact of sea level rise

1. Sea level Rise 0,475 cm/ year
2. Sedimentation rate 0,196 cm/year