(a) Freshwater and nutrient input

Sea level rise pre-monsoonal input

Gradual freshening of surface

Primary production bloom

Remineralization of sinking organic matter

Reduced supply of O

Stratification

Split anoxia

Early development of seafloor anoxia

Denitrifiers outcompete anammox

Possible photic zone euxinia

“Black Sea-like” water column

Sediment Organic-rich sediment

Organic-rich sediment

Sapropel onset

Sapropel core

Sapropel termination

Time

(b) Freshwater and nutrient input

Primary production bloom

Remineralization of sinking organic matter

Reduced supply of O

Stratification

Possible split anoxia

Shoaling of euxinia into photic zone

Inflow

Ventilated deep water

Development of seafloor anoxia

Denitrifiers outcompete anammox

Anammox compete with phototrophs

Possible split anoxia

Post-sapropel anammox

Sediment Organic-rich sediment

Organic-rich sediment

Sapropel onset

Sapropel core

Sapropel termination

Time