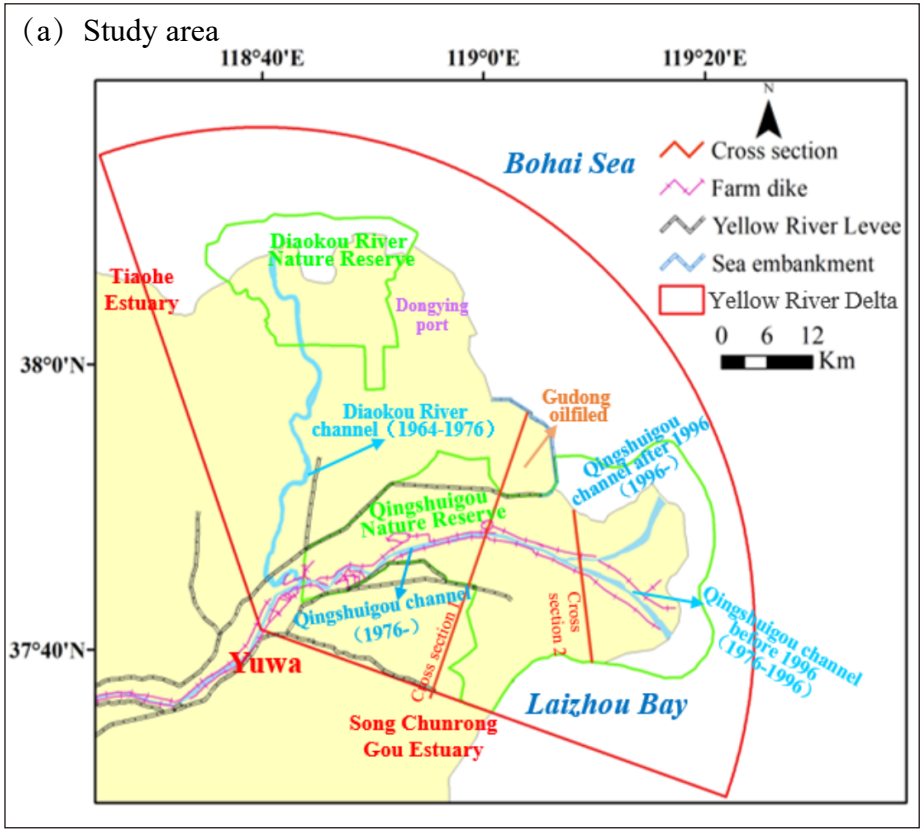
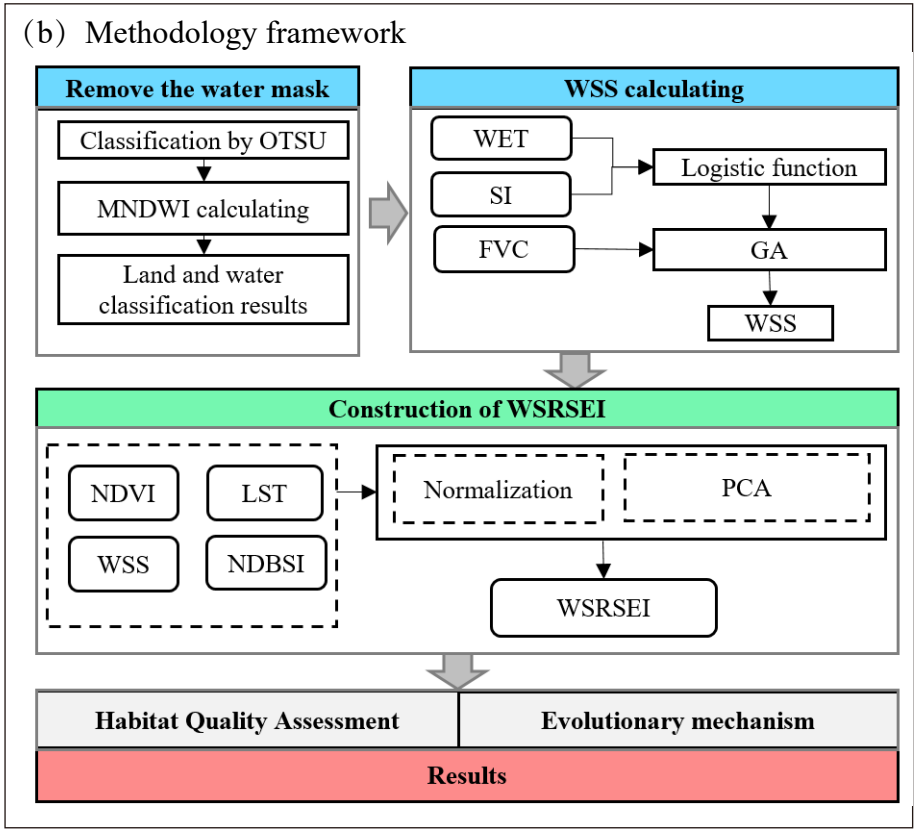
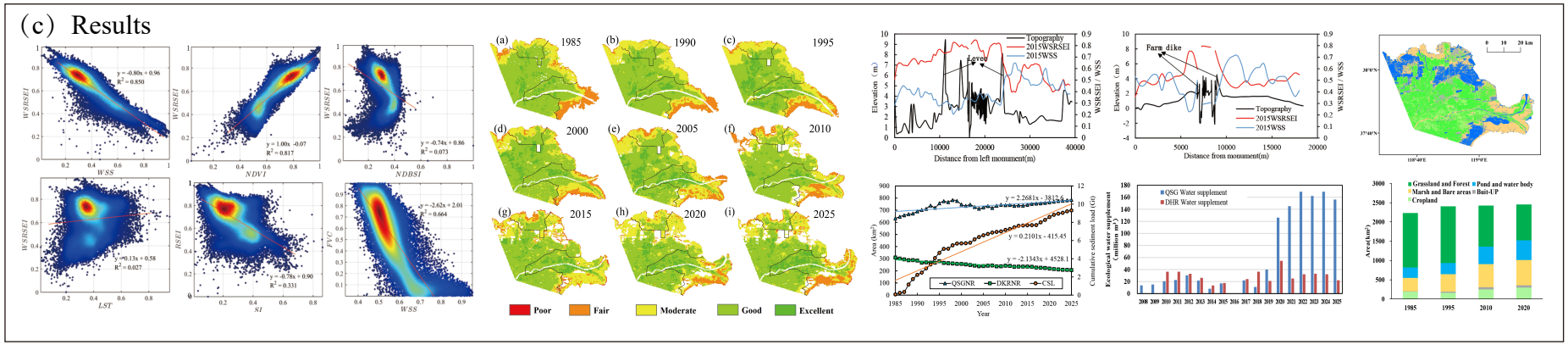

(a) Study area
118°40'E
119°0'E
119°20'E
38°0'N
37°40'N
N
Bohai Sea
Cross section
Farm dike
Yellow River Levee
Sea embankment
Yellow River Delta
0 6 12
Km
Diaokou River Nature Reserve
Tiaohe Estuary
Dongying port
Gudong oilfiled
Diaokou River channel (1964-1976)
Qingshuigou channel after 1996 (1996-)
Qingshuigou Nature Reserve
Qingshuigou channel (1976-)
Qingshuigou channel before 1996 (1976-1996)
Cross section 1
Cross section 2
Yuwa
Laizhou Bay
Song Chunrong Gou Estuary


(b) Methodology framework
Remove the water mask
Classification by OTSU
MNDWI calculating
Land and water classification results
WSS calculating
WET
SI
FVC
Logistic function
GA
WSS
Construction of WSRSEI
NDVI
LST
WSS
NDBSI
Normalization
PCA
WSRSEI
Habitat Quality Assessment
Evolutionary mechanism
Results


(c) Results
Poor
Fair
Moderate
Good
Excellent
Grassland and Forest
Pond and water body
Marsh and Bare areas
Built-UP
Cropland