

# LAND COVER CHANGES IN DELTA OF THE BLACK SEA BASIN

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UKRAINE

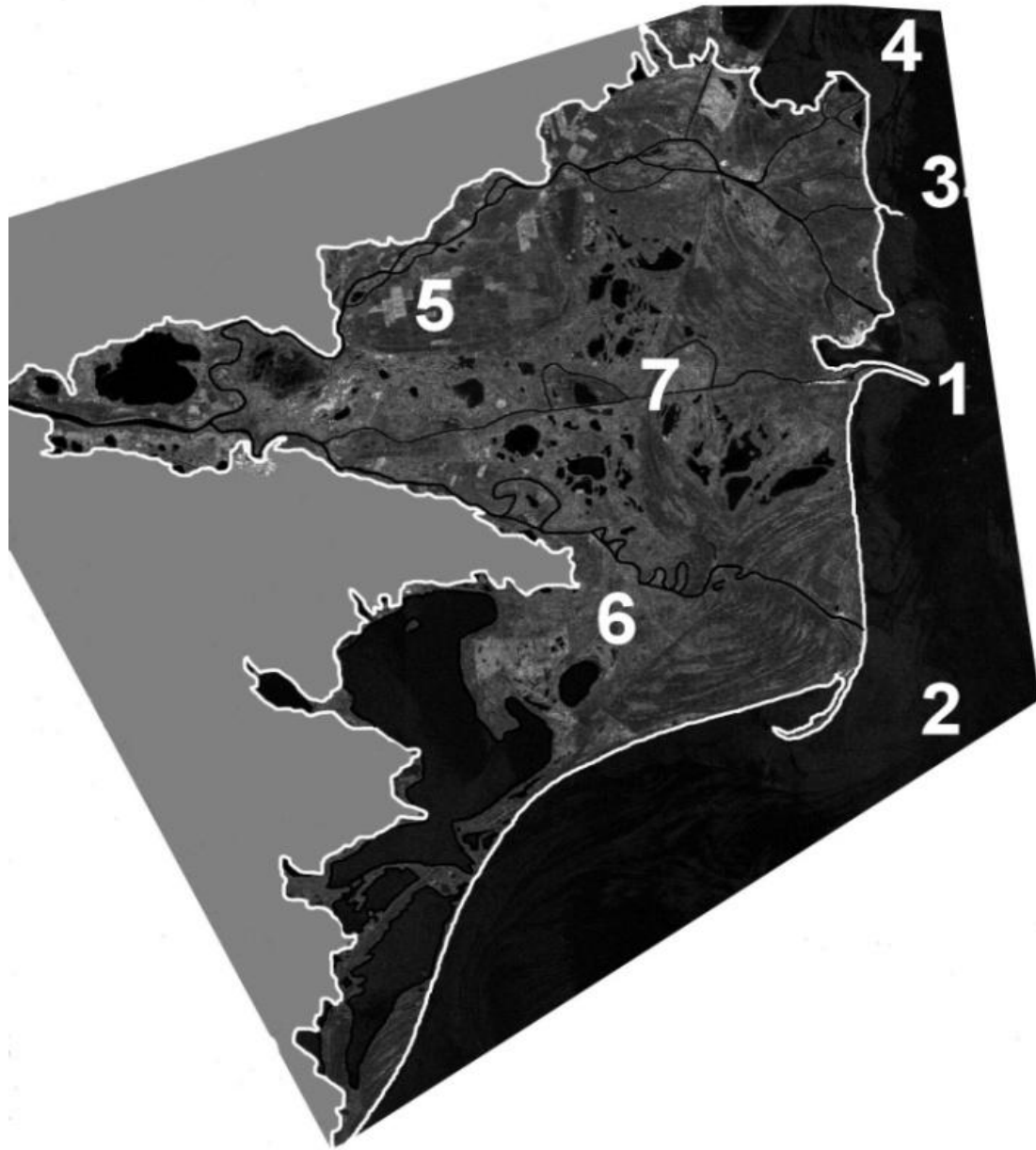
SCERIN-1 – 2013 - Prague

# Scale of the problem

- Processes of land cover changes (degradation) in deltas proceed very originally in every cases. Nevertheless, the general regularities are as follow:
- **Depending on a climate the dominating processes are :**
  - Arid and semiarid zones – land desertification, salinization, aeolian destruction.
  - Sub-humid zone - steppe-like soil formation, slight salinization, sometime-desertification.
  - Humid zone - peatbog and fen drying-up and degradation.
- **Depending on geomorphologic conditions:**
  - Inland deltas (Chu, Tarim, Heihe, Zeravshan, partly - Okavango) - fast and strong desertification and salinization, aeolian destruction.
  - Deltas on the shore of inner water bodies (lakes and seas) - (Ili, Syrdarya, Amudarya, etc.) drying-up, desertification, salinization, aeolian destruction.
  - Deltas in sea estuaries (limans) - (Dnepr, Dniester etc.) - drying-up, overgrowing with hygrophytes and hydrophytes, meadows and forests formation, slight salinization.
  - Deltas in the sea bays (Euphrates, Colorado) - intrusion of sea water, desertification, salinization, aeolian destruction.
  - Deltas on the coast of seas and oceans (Danube, Nile, Huanghe, etc.) - abrasion of the coast, sea water intrusion, drying-up, desertification, salinization.

# Black Sea basin

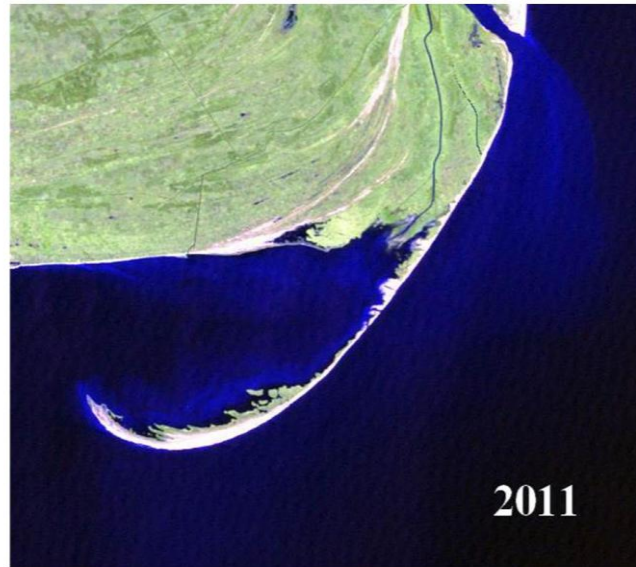
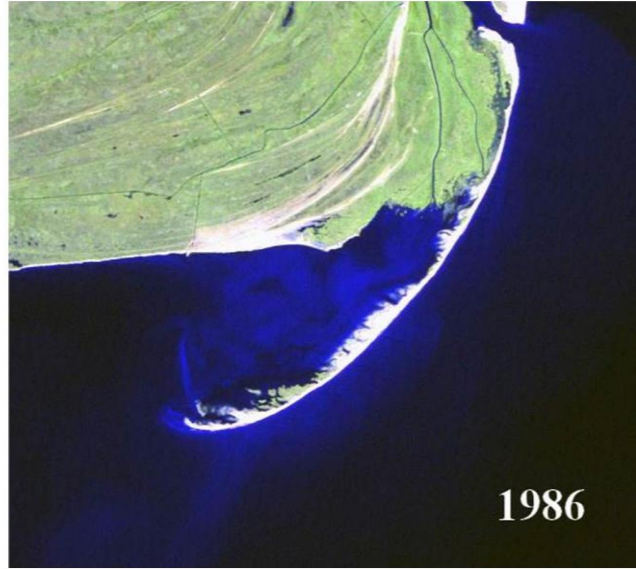
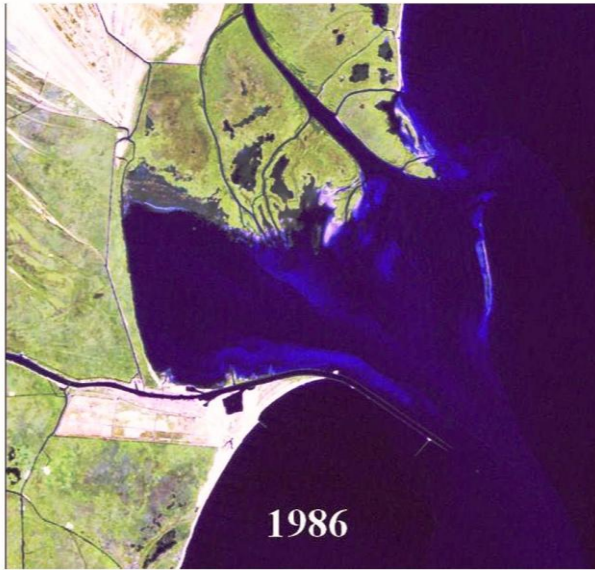




**Key  
research  
areas in  
the  
Danube  
delta**



# Danube delta: Key areas 1, 2, 3.



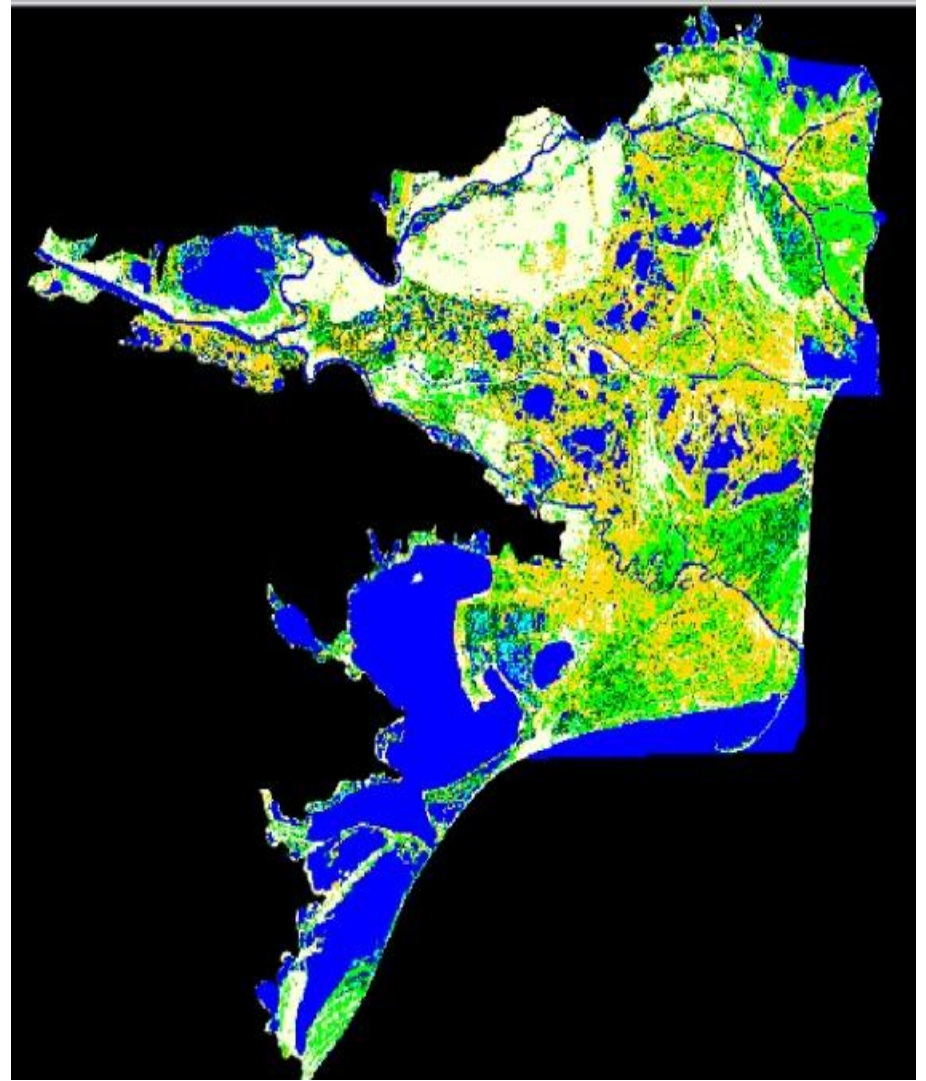
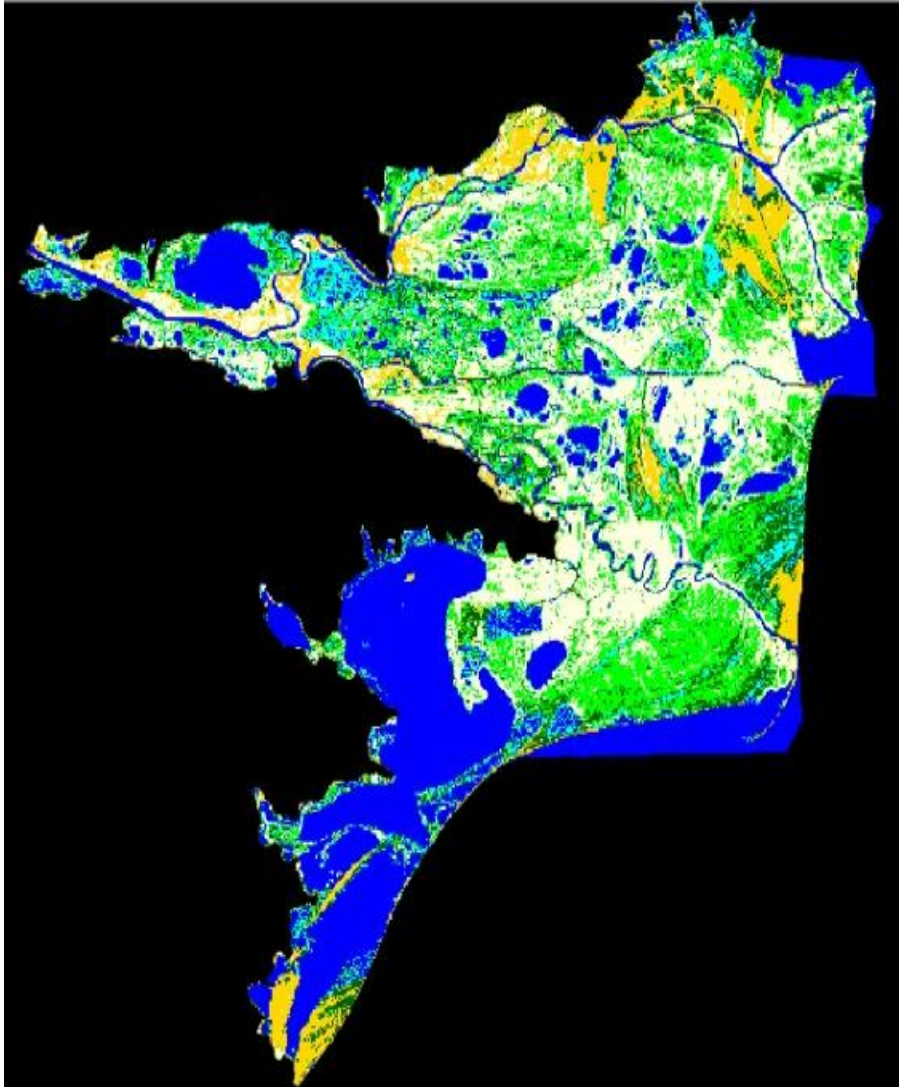


# Danube delta: Key areas 4, 5, 7.

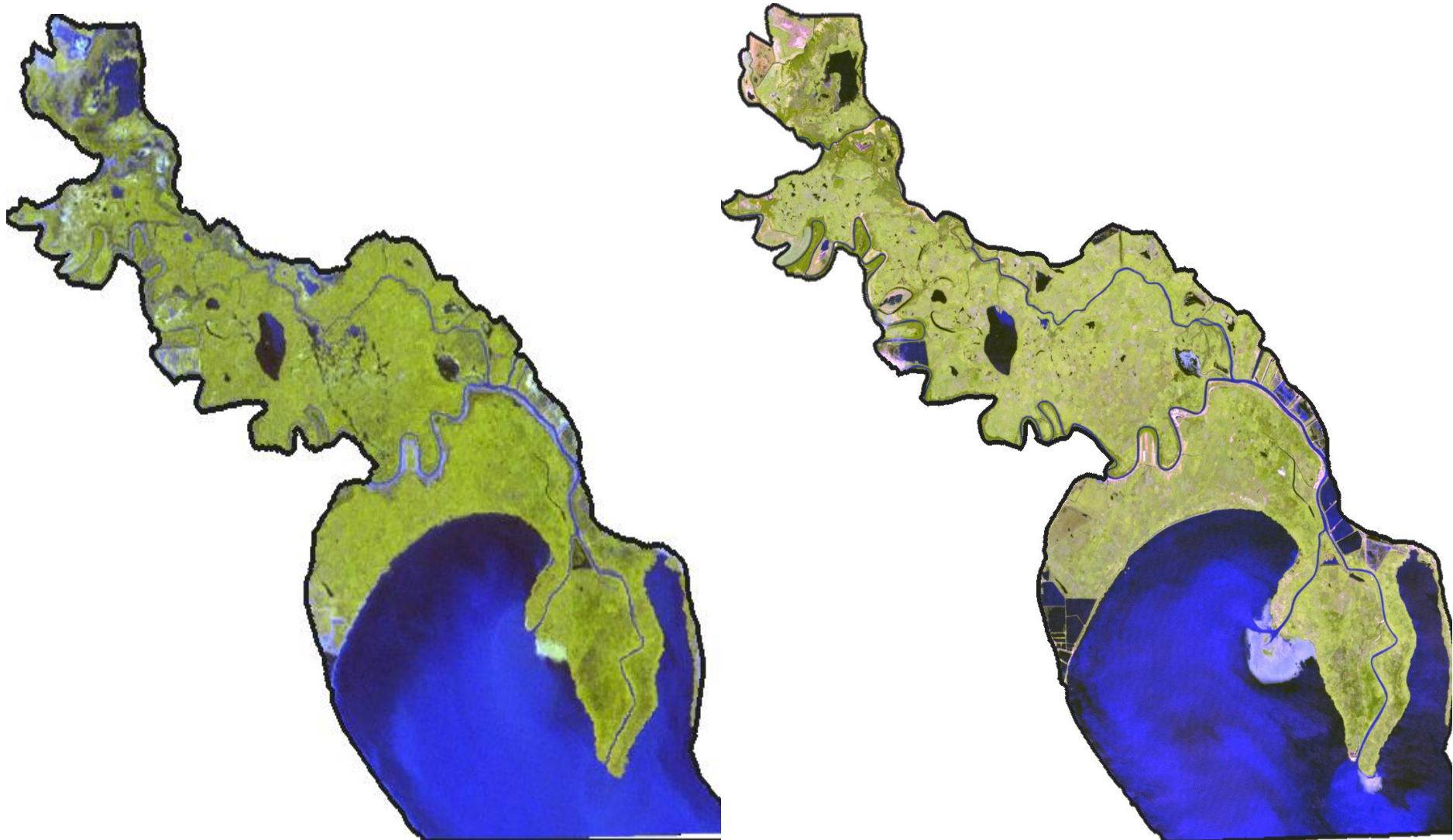




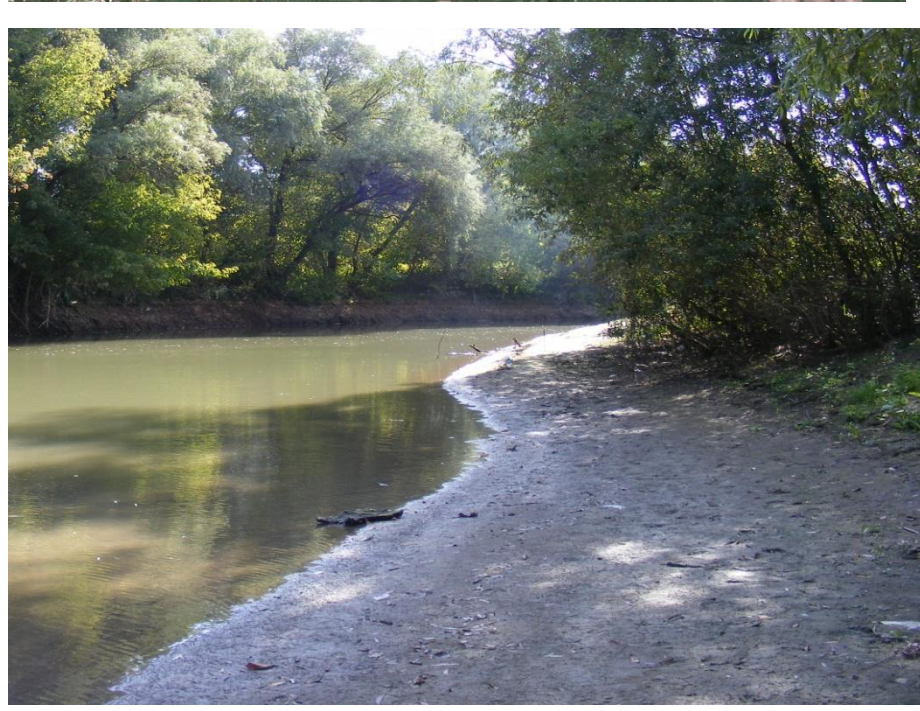
# Danube delta changes (1977 and 2009)



# Dniester delta changes: 1975 and 2011







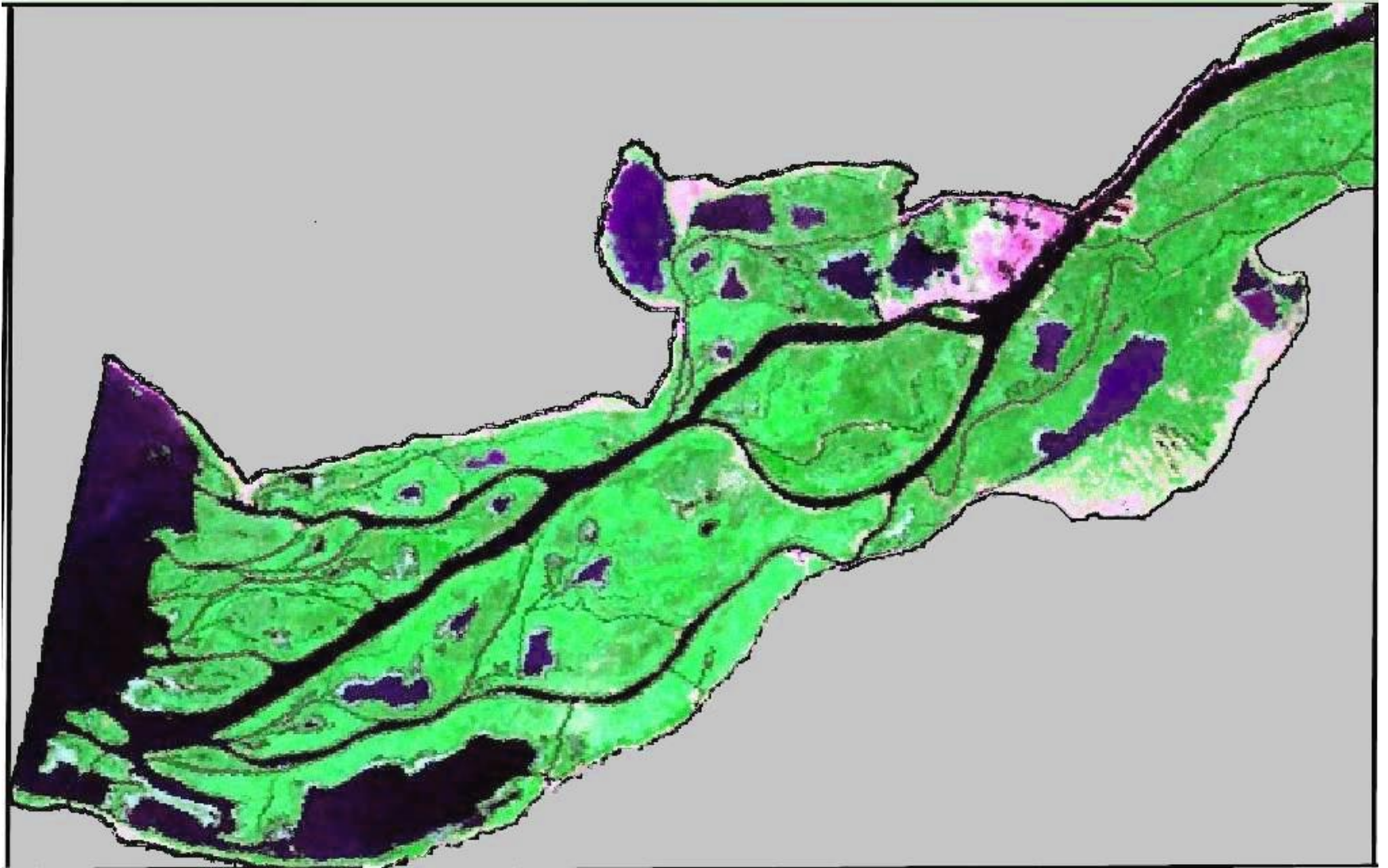




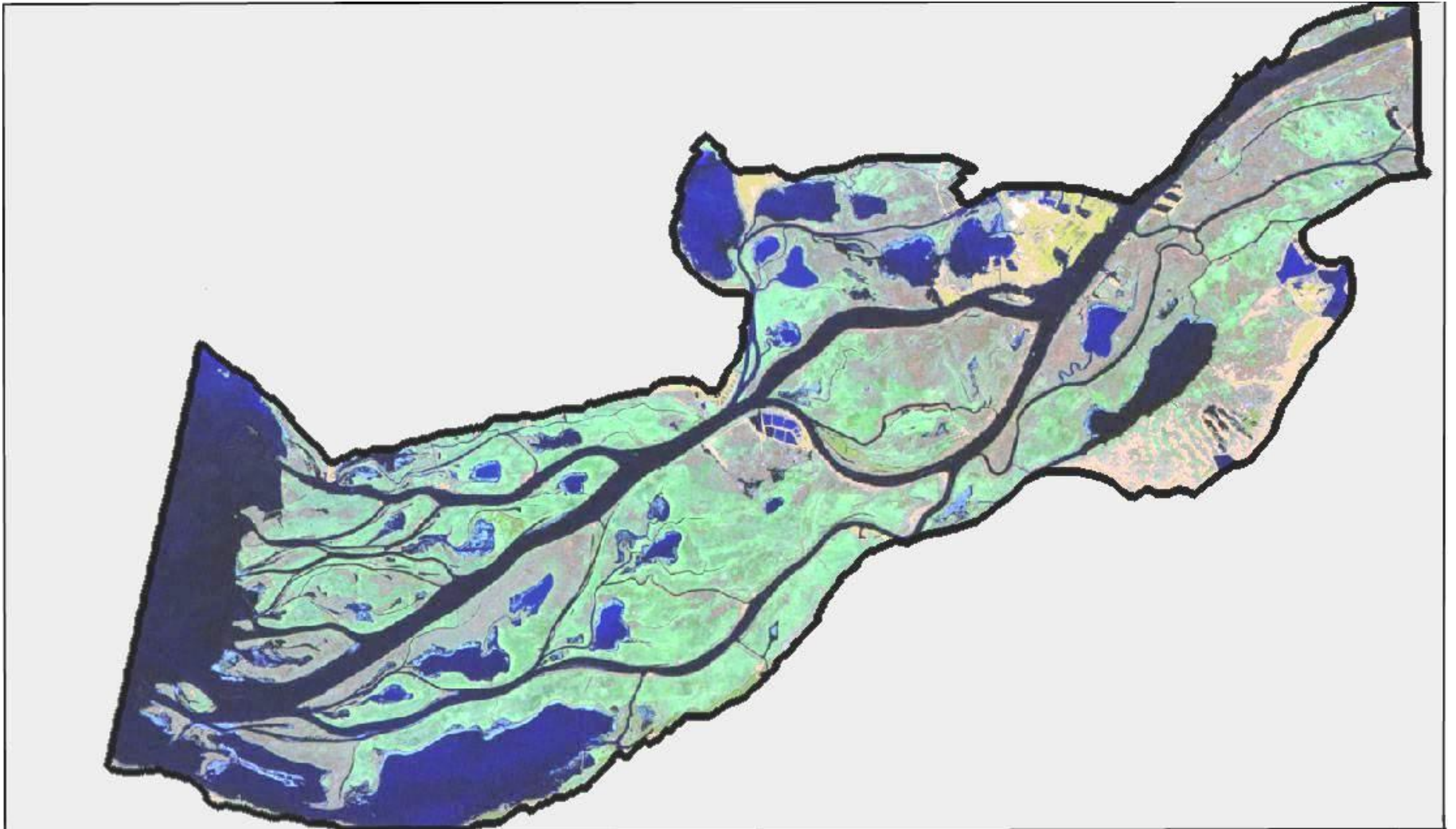
# Dnipro (Dnieper) river basin



# Dnipro delta in 1975

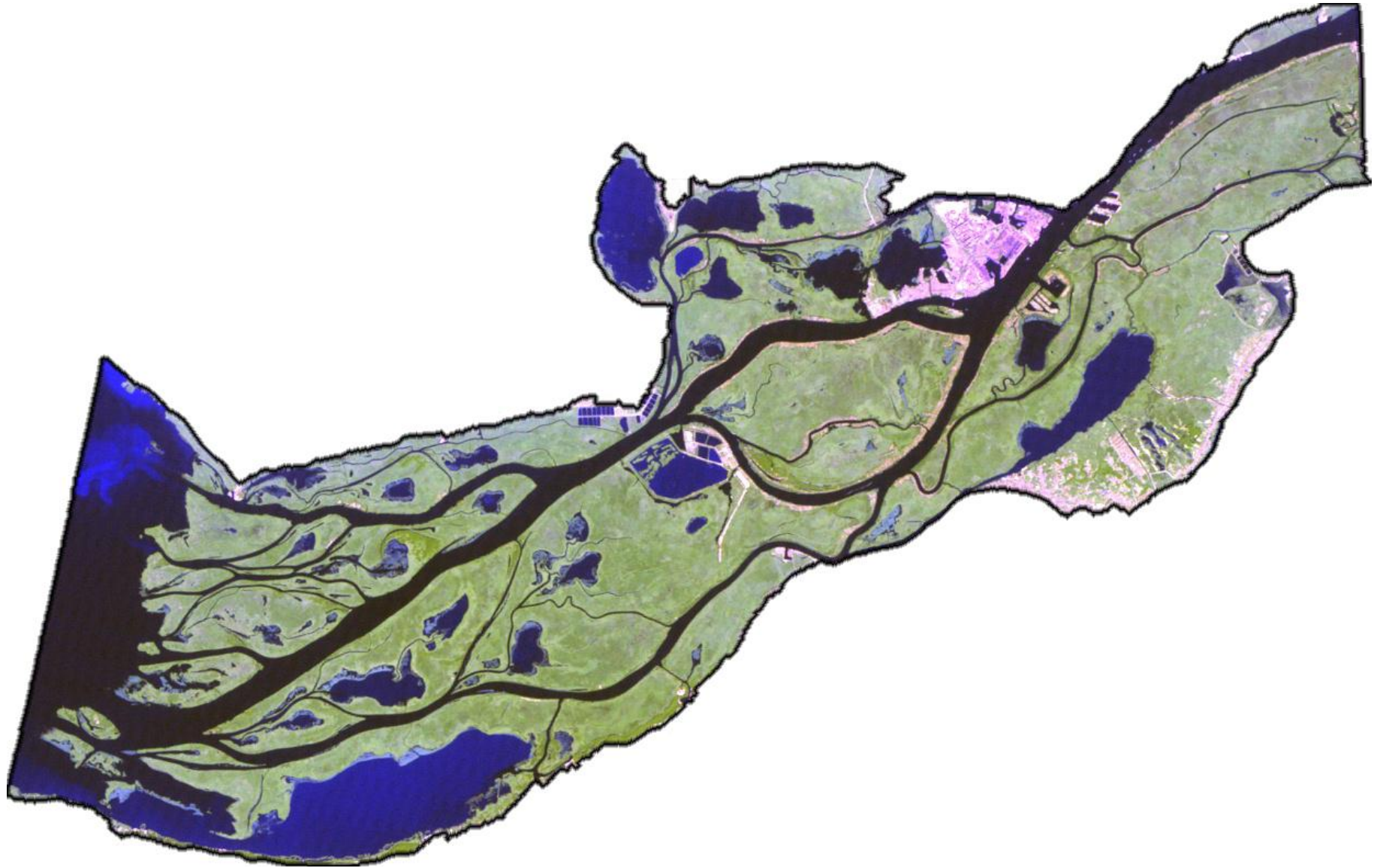


# Dnipro delta in 1986

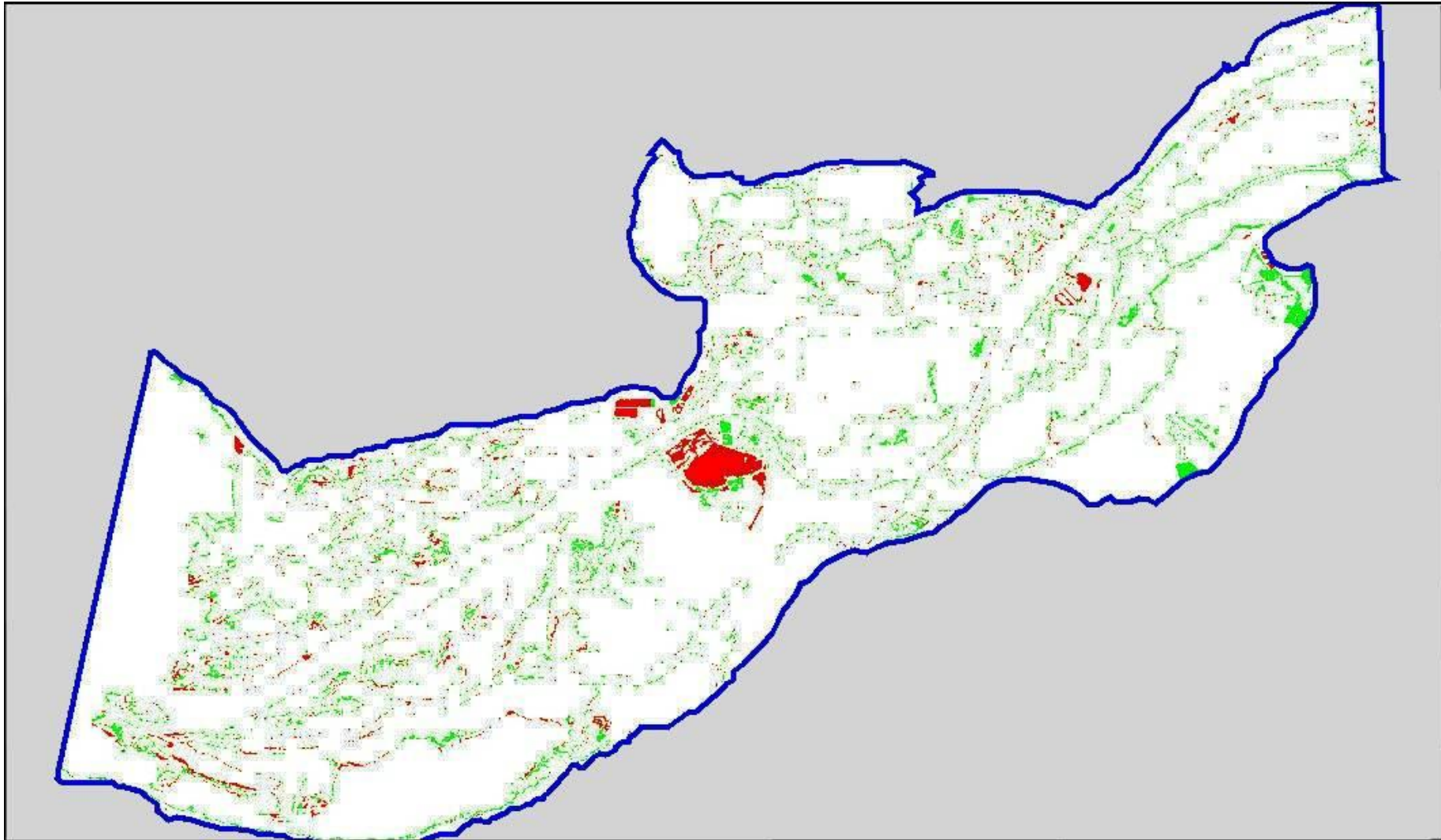




# Dnipro delta in 2010

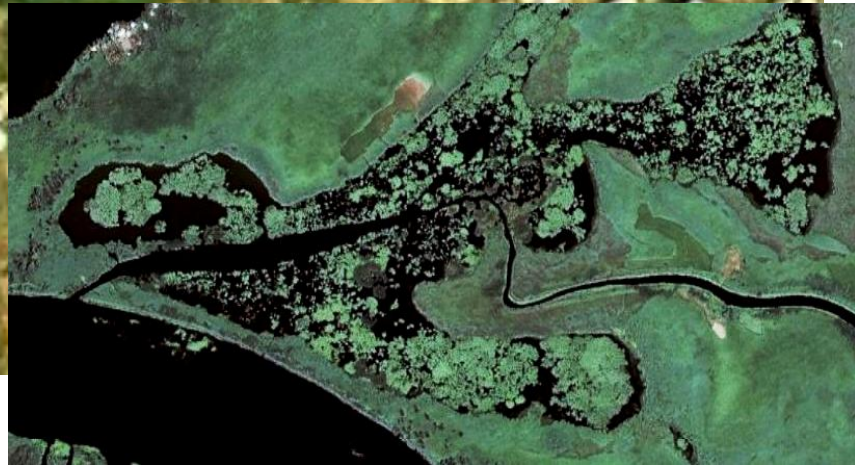


# Dnipro delta: change detection 2010 / 1986





# Eutrophication in the Dnipro delta and estuary







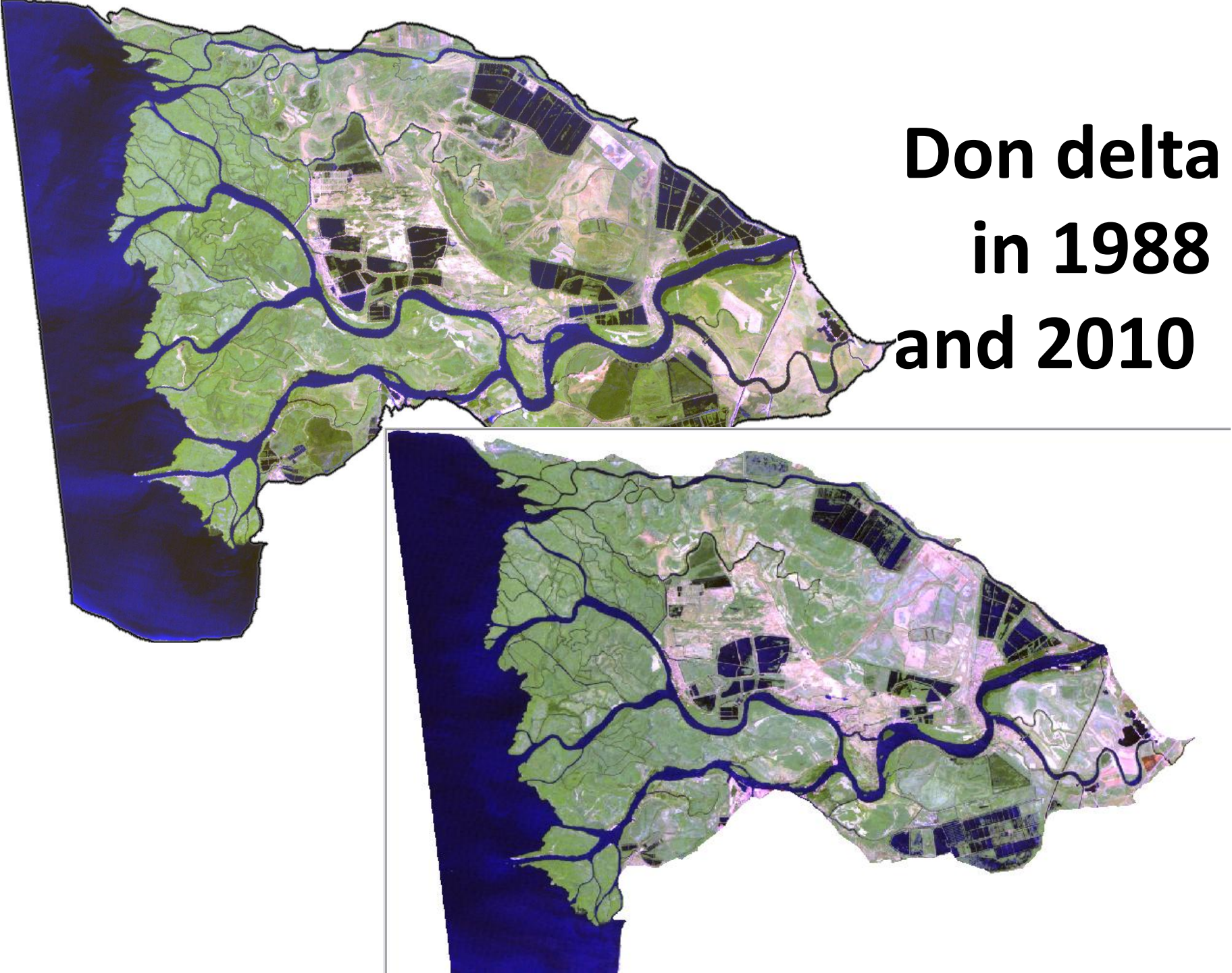


# DON (1) and KUBAN' (2) deltas



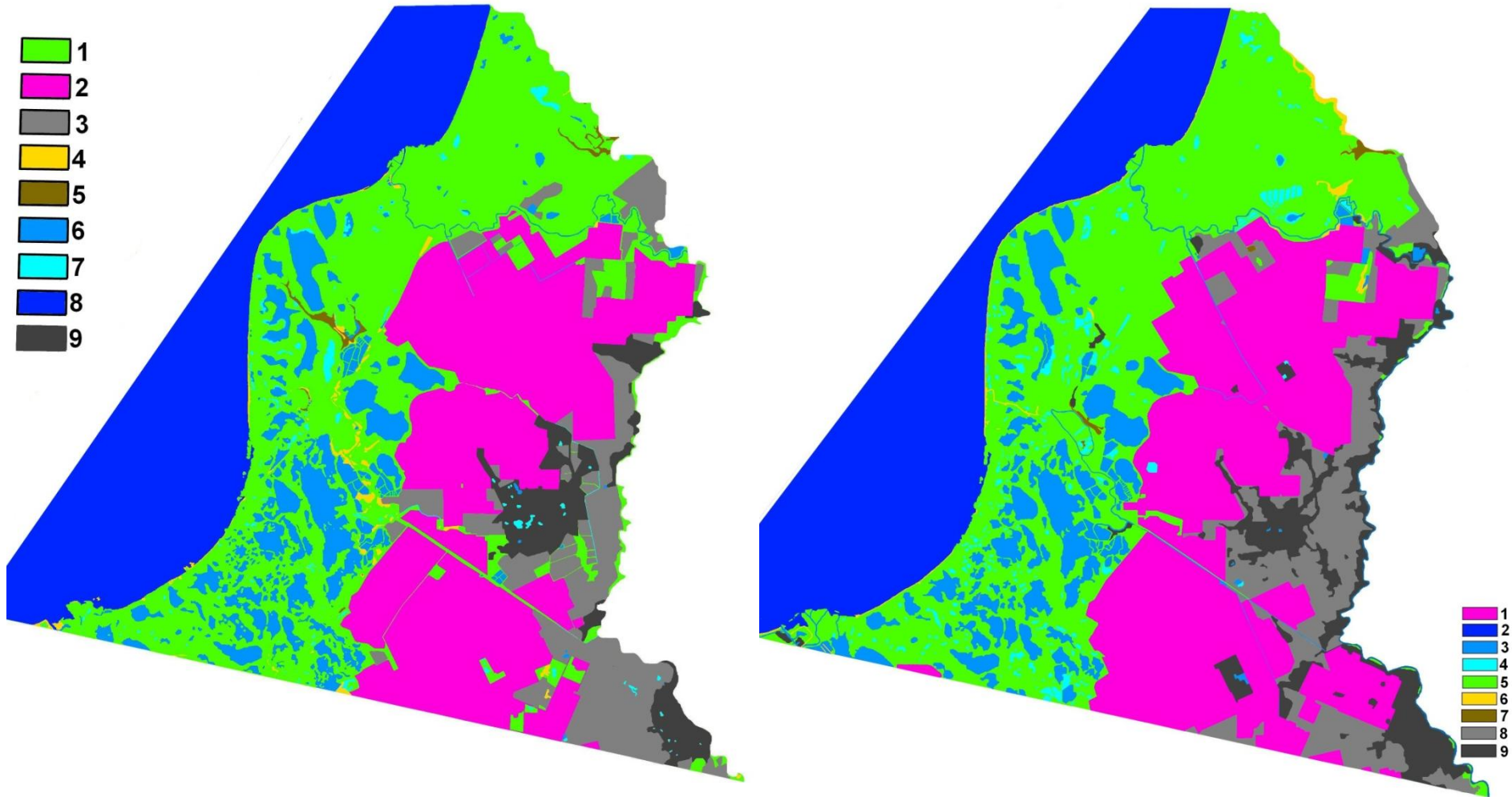


# Don delta in 1988 and 2010

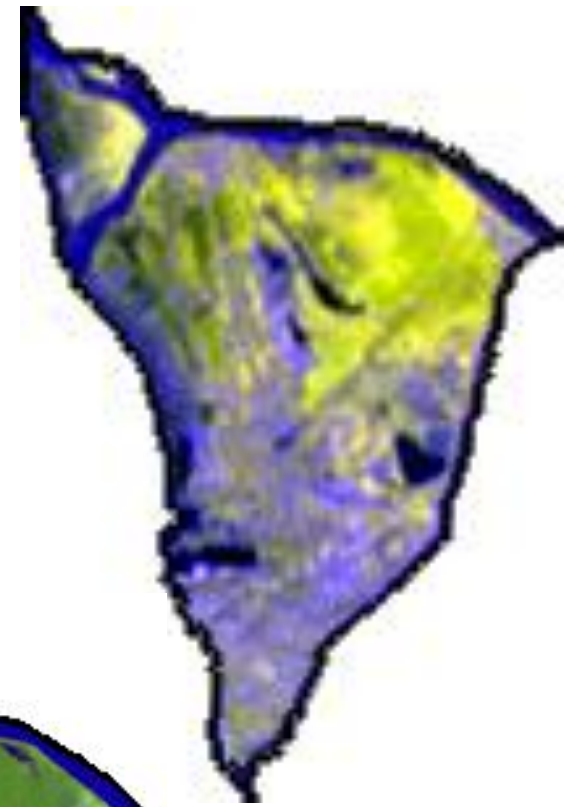




# Kuban' delta in 1986 and 2010



# Rioni delta in 1980 and 2009



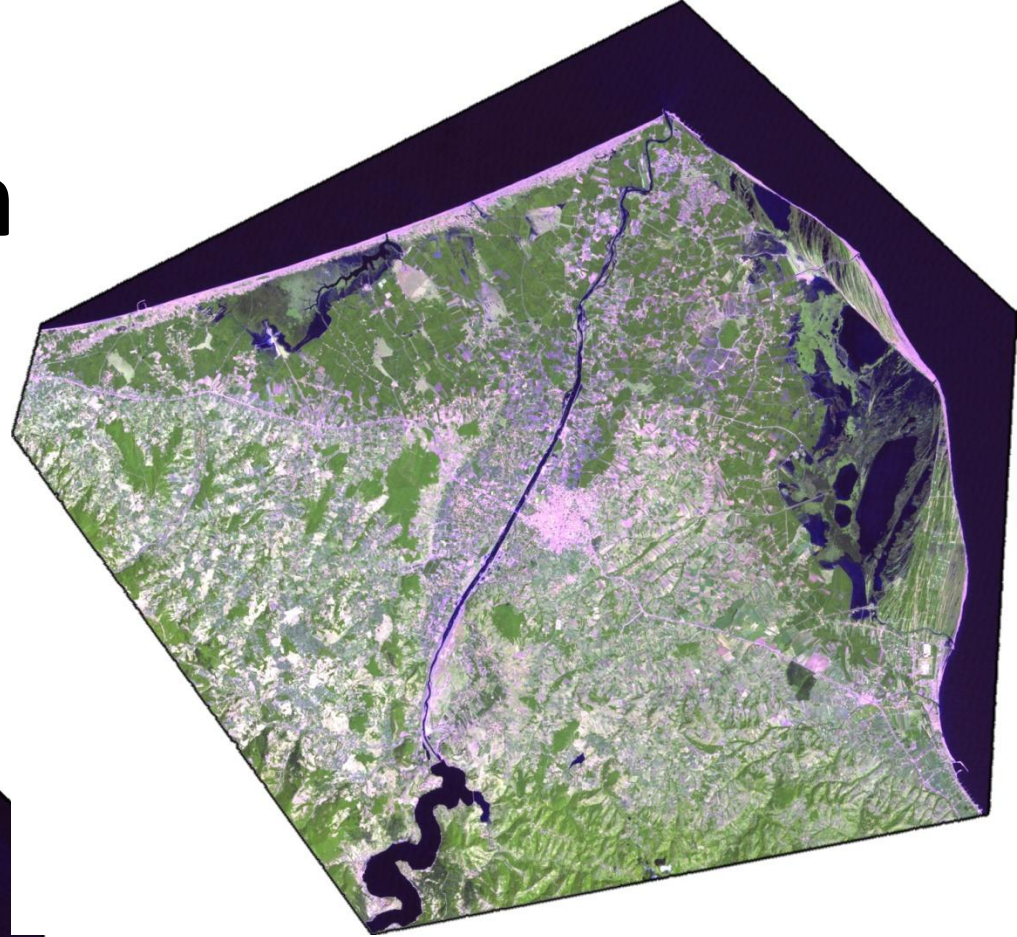
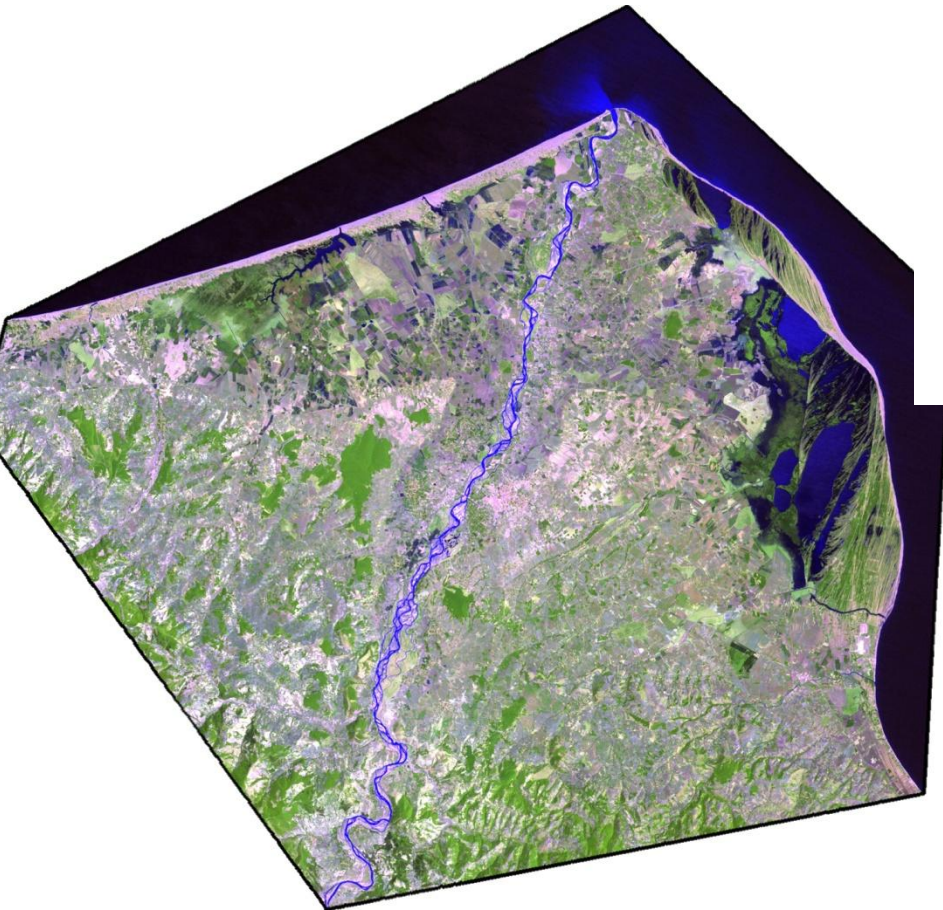


# Kizilirmak (1) and Yesilirmak (2) deltas, 2013-04-30 (Terra).

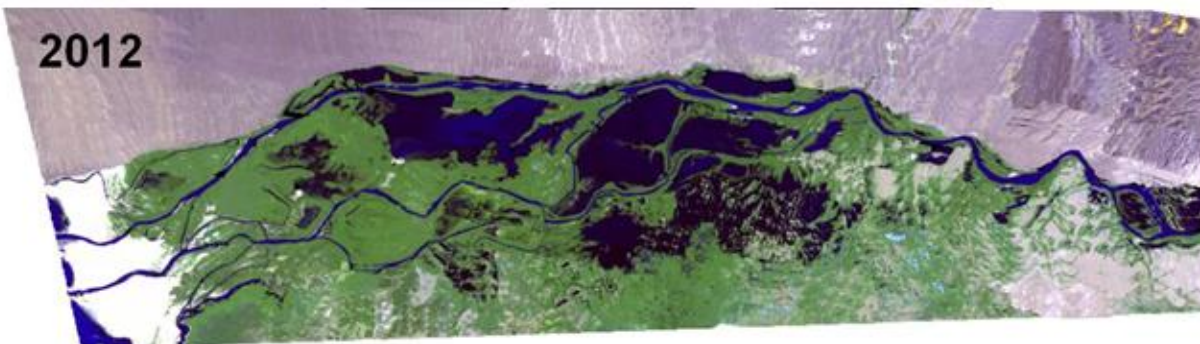
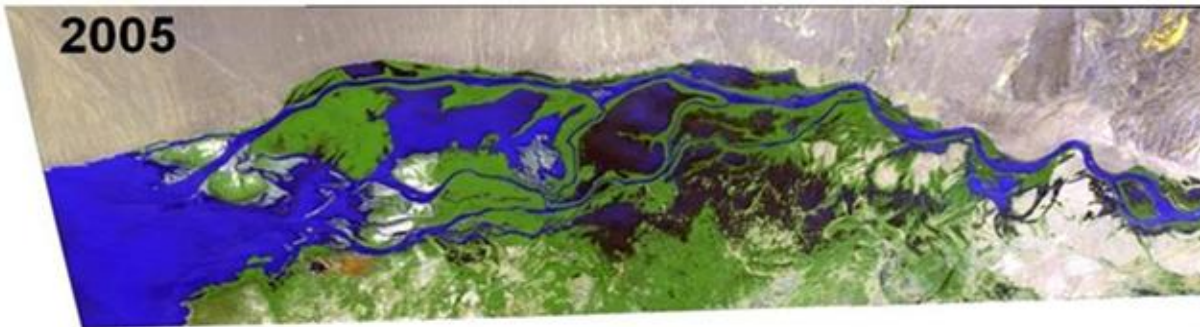
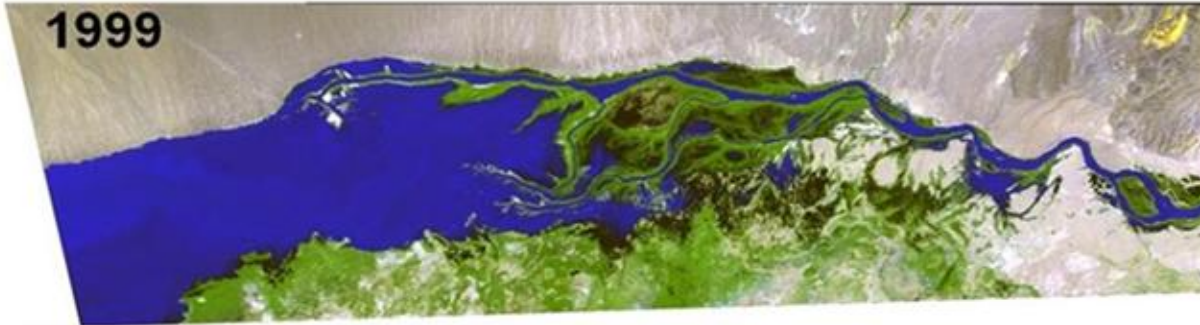
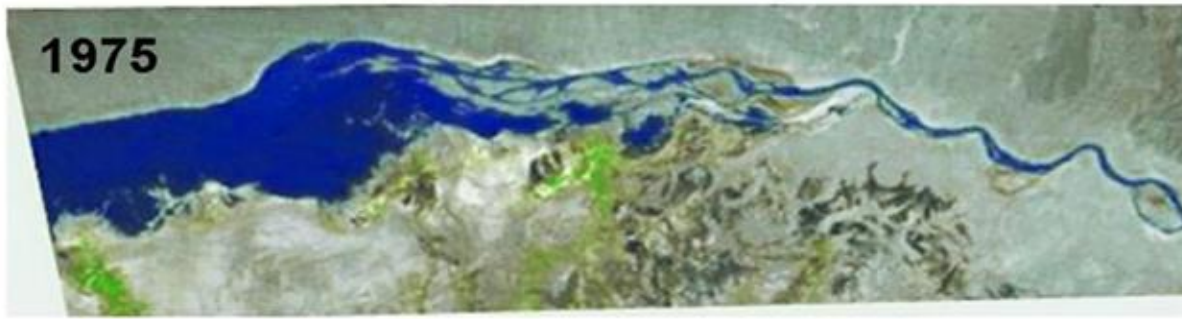




# Kizilirmak delta in 1985 and 2010







**Additional  
projects:  
1. NEW LAND  
COVER  
FORMATION  
IN LARGE  
WATER  
RESERVOIRS**

## 2. Microdepressions impact on land cover heterogeneity

