The Challenges of Creating a Sustainable Mississippi River Delta

REA Conference
Dec. 11. 2018
Steve Cochran
AVP, Coastal Resilience - Environmental Defense Fund
Director - Restore the Mississippi River Delta
Principle Challenge:
A System in Collapse
Principle Challenge:
A System in Collapse
Causes of Louisiana Coastal Land Loss

• Management Goals that ignored ecology
  • Navigation
  • Flood control
  • Development
    • Oil and gas
    • Timber
    • Agriculture
    • Population expansion

• Sea Level Rise
Ongoing Coastal Challenges

- Time
  - Land loss
  - Sea level rise
- Money
  - Funding
  - Markets
    - Insurance
    - Investment
- Governance
- Emissions
Sediment Diversions
Keystone of the State’s Master Plan:
Reconnecting the River to its Delta
Major crevasse splays along lower Mississippi River channel (from Twilley)
Evolution of Corps Levee Standards
Growth and Resilience of the Wax Lake Delta

Morton and Barras, 2011

http://earthobservatory.nasa.gov/Features/WorldOfChange/wax_lake.php
50 year Land estimates from LA Coastal Master Plan

**MEDIUM SCENARIO** (sea level increases by 2.07 feet)
- Net Loss without Action = 2,250 square miles
- Net loss with Action = 1,448 square miles
- Master Plan benefits = 802 square miles.

**HIGH SCENARIO** (sea level increases by 2.72 feet).
- Net Loss without Action = 4,100 square miles
- Net loss with Action = 2,942 square miles
- Master Plan benefits = 1,158 square miles.
Ongoing Coastal Challenges

• Time
  • Land loss
  • Sea level rise

• Money
  • Funding
  • Markets
    • Insurance
    • Investment

• Governance

• Emissions