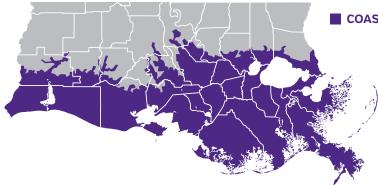
## RESEARCH WORKS ON HURRICANE IMPACTS

# In 50 years, storm and flood damages could cost the state up to \$23.4 billion a year.



COASTAL ZONE AND EXTREME STORM SURGE POTENTIAL ZONE



**OVER 2 MILLION PEOPLE** LIVE IN LOUISIANA'S COASTAL ZONE.



THE EXTREME STORM SURGE POTENTIAL ZONE FACES STORM SURGES OF OVER 9 FEET FROM EVEN A CATEGORY 3 HURRICANE.



OVER 20% OF THE MOST INTENSE U.S. MAINLAND HURRICANES ON RECORD MADE LANDFALL IN LOUISIANA.

### LSU research works to minimize loss.

#### **Building resilient communities**

- Louisiana Sea Grant produced the Homeowners Handbook to Prepare for Natural Hazards and distributed copies to coastal residents to help them reduce their risk and property damage from storms, wind, and flooding.
- LSU engineering, architecture, and agricultural economics faculty are testing new low-cost, hurricane-resistant residential construction materials that would help protect the homes of low-income families living in hurricane-prone coastal areas.

#### **Producing accurate predictions**

- LSU oceanographers, engineers, and computer scientists are improving upon latest computer models to help state emergency response teams predict hurricane storm surge and potential damages more accurately.
- LSU uses high-performance computing and the latest field data to predict the impacts of relative sea level rise, tides, wind waves, and hurricane storm surge that can affect flood maps, flood insurance rates, and coastal development.



#### **KEY BENEFITS OF COMPRESSED AND STABILIZED EARTH BLOCK HOMES**





**COST-EFFECTIVE:** finished construction price of \$46–\$55 per square foot



**HOME-GROWN MATERIALS:** can be made from soil in almost any Louisiana parish



**HURRICANE-RESISTANT:** can withstand 134 mph winds



**MODERN DESIGN OPTIONS:** easily integrated into the design of houses of different sizes