A newly published scientific study says growing more corn to produce ethanol and reduce U.S. use of foreign oil could have a negative impact on marine life in the Gulf of Mexico.

The study, published Monday, says increased corn cultivation will worsen an expanding "dead zone" in the Gulf of Mexico. The water in the zone has so little oxygen in it that fish and crustaceans cannot live in it.

The 20,000 square-kilometer zone is caused by runoff of nitrogen fertilizer from corn-farming states in the midwestern United States. The runoff enters the Gulf of Mexico by way of the Mississippi River watershed.

President Bush and U.S. lawmakers have included increased ethanol production in proposed changes to national energy policy.

The Canadian and American co-authors of the study say increased corn cultivation will increase nitrate pollution of the Gulf of Mexico.

The authors say reducing the amount of nitrogen carried by the Mississippi River is unlikely to happen without large shifts in food production and agricultural management.

*Some information for this report was provided by AFP and Reuters.*