

Don't Just 'Do Something'

We must put science first in the gulf.

by Sharon Begley
Newsweek
June 10, 2010

Scientists are such spoilsports, always insisting on gathering data on the likely effects of a strategy before implementing it. Politicians are more inclined to just go for it, especially when they're desperate. Louisiana Gov. Bobby Jindal is desperate: millions of gallons of BP's crude are launching an amphibious assault on his beaches and wetlands. So let's do the math: desperation + a pol's "do *something*" mentality = a loony decision to build 14-foot sand berms to protect the state's coastline—a decision that bodes ill for the many others the state will face as BP's oil gushes at least until August.

Before this, Jindal was known to scientists as the governor who in 2008 signed a law allowing the state's public schools to teach creationism (excuse me! "intelligent design") in their classrooms. The difficulty he has distinguishing science from faith reared its ugly head again when he cast about for a way to hold back BP's oil. Emissaries from Jindal's office have made regular pilgrimages to the Netherlands to consult with engineers about protecting the state's coasts from the next Katrina. Van Oord, a marine engineering and dredging company that is constructing the artificial Palm Islands for Dubai, proposed building what amounts to artificial sandbars. "If you ask a Dutch company that builds artificial islands in Dubai how to protect marshlands and barrier islands," says coastal geologist Rob Young of Western Carolina University, "of course they'll say, 'Let's make an offshore island!—and shall we put a palm tree on it for you?'"

The sandbars would stand in front of barrier islands in seven to eight feet of water and rise another six feet. The hope is that they would trap incoming oil before it despoils the islands. Oil caught in the sandbars would be collected by scooping up the sand, which is why coastal geophysicist Joe Kelley of the University of Maine calls them "sacrificial berms." The sandbars should also channel oil toward tidal inlets, where booms and skimmers could collect it before it infiltrates wetlands, which serve as vital nurseries for fish and birds.

Nothing like this has ever been tried, and the potential problems are legion. For starters, the 45 miles of berms the Army Corps of Engineers has OK'd will take six months to build, and "is going to start to erode and disappear immediately," says Young. "I wouldn't be surprised if by the time they get to the end the beginning is gone—and that's without a storm." (Scientists predict this hurricane season will be one of the worst in years.)

But heck, it's BP's money (\$360 million for the berms alone, to be constructed by The Shaw Group Inc. of Baton Rouge, though the feds and state would have to front it and hope to be repaid), so who cares if the berms have to be rebuilt over and over? The real problem could be if they last long enough to block inlets that carry water to the wetlands on shore. If that happens, notes Young, "organisms that need to move in and out with tidal flushing won't. You could kill the wetlands without the oil ever reaching them." If they don't block the inlets, then oil will reach the wetlands, and they'll be toast. (If you think it's tough to clean oil from a bird or beach, try cleaning it from the roots and stems of a wetland's grass and reeds.) Altering tidal currents could also cause erosion of the natural barrier islands that protect the coast from hurricanes. "This could do more environmental harm than good," says Young.

Other coastal scientists agree that berms will do nothing good other than satisfy the "do something" crowd. That's why the decision sets such a terrible precedent. BP's oil will assault the gulf, and possibly the Atlantic, for years. Many more decisions that turn on science lie ahead. No one is saying we have to launch a multiyear study before each one, but it would be nice to get the smartest coastal scientists and engineers around a table to hammer out what we know, what we don't know, and what the risks and benefits of proposed actions are, rather than just winging it.

When a politician is faced with an economic or social mess, the "just try something" mentality can be justified. Policies on these fronts cannot be accurately predicted for the simple reason that human behavior is involved. No amount of science can reliably forecast the effects of, say, financial or health-care reform, so a reasonable case can be made for "do something." Not so when we're talking about the laws of physics and chemistry rather than human behavior. In these cases, ignoring the science makes politicians seem like petulant children.