



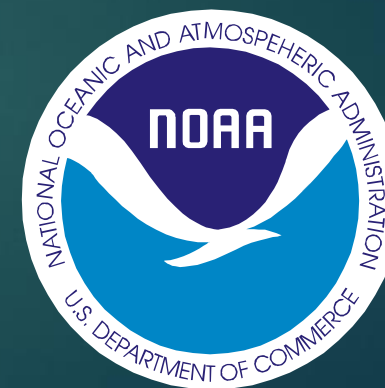
# Effective Sea Turtle Bycatch Mitigation through Modification of Fishing Practices: Perspectives and Pitfalls

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HARVESTING SYSTEMS AND ENGINEERING BRANCH

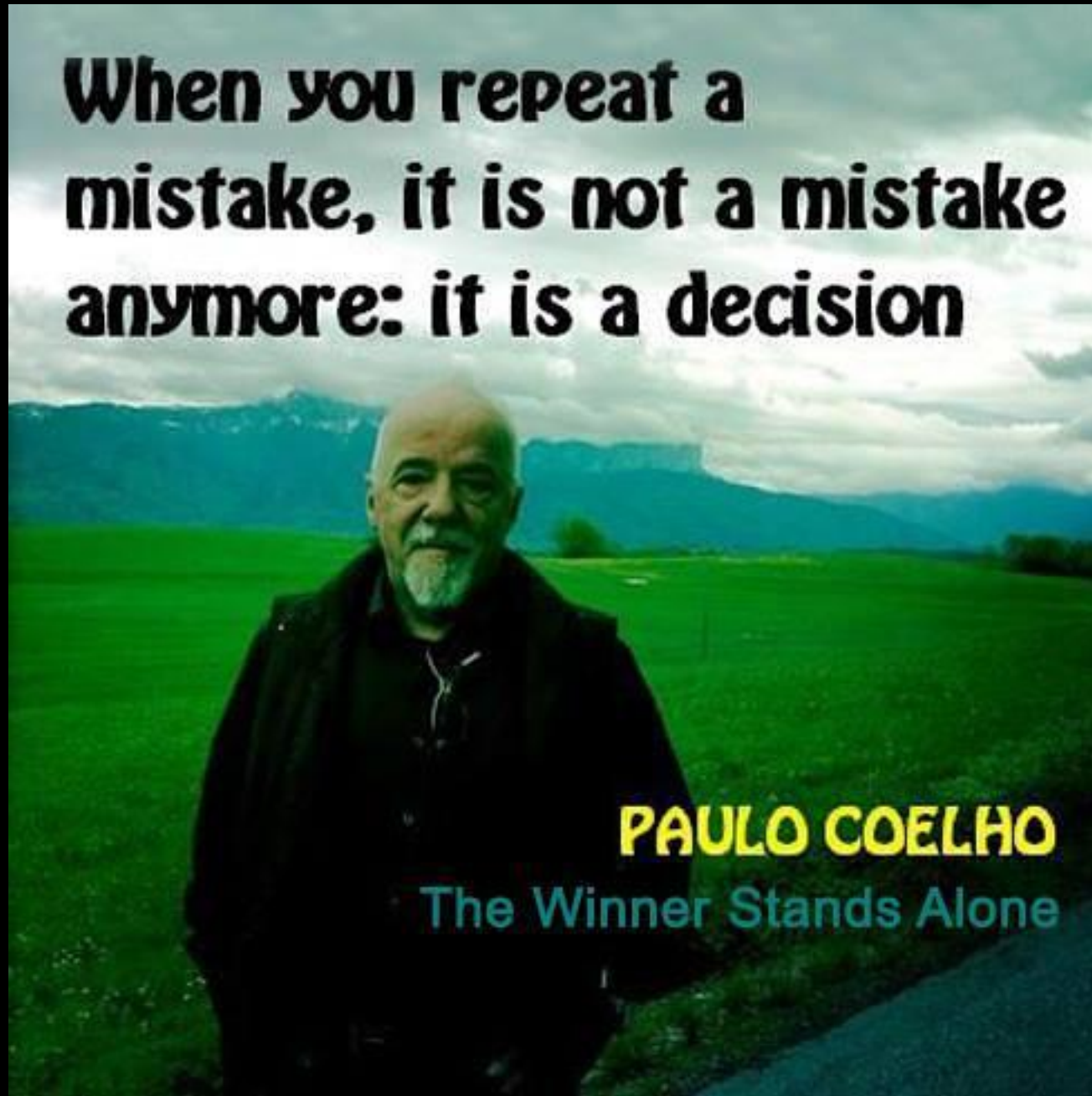
WIDECAST ANNUAL MEETING, PARAMARIBO 2019



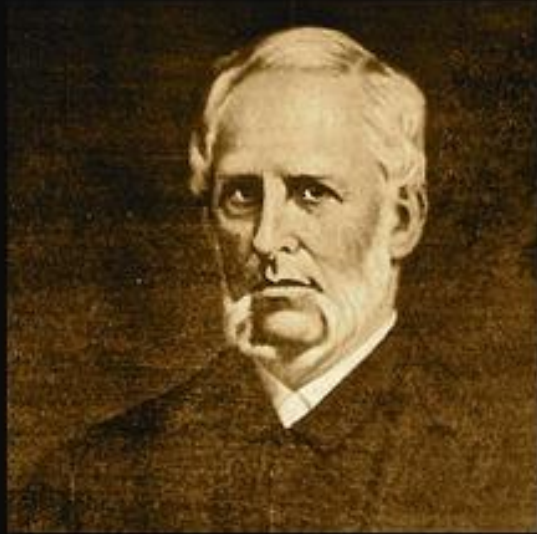
**When you repeat a  
mistake, it is not a mistake  
anymore: it is a decision**

**PAULO COELHO**

The Winner Stands Alone



Tryon Edwards



Some of the best lessons we ever learn we learn from our mistakes and failures. — The error of the past is the wisdom and success of the future.

AZ QUOTES

Eayrs, S. and Pol, M. 2018.

*The myth of voluntary uptake of proven fishing gear: investigations into the challenges inspiring change in fisheries.*

## Methods

- ▶ Convened a topic group on **Change Management in Fisheries** as part of annual ICES-FAO WGFTFB meetings 2015-2017 with 38 attendees representing 16 countries.
- ▶ Prior to the first topic group, WGFTFB members to complete an online survey with 48 individuals responding.
- ▶ Conducted 13 face-to-face interviews of WGFTFB members.
- ▶ Evaluated two online fishing gear research project report databases: NOAA NEFSC Cooperative Research Program database (640 projects) and Northeast Consortium database (170 projects).

Kotter, J. P. 1996. Leading Change. Harvard Business School Press, Cambridge, MA. 187 pp.

## **Kotter Change Management Model**

### **Eight Steps to Transforming Your Organization**

- ▶ Establishing a sense of urgency
- ▶ Form a powerful guiding coalition
- ▶ Create a vision
- ▶ Communicate the vision
- ▶ Empower others to act on the vision
- ▶ Plan for and create short-term wins
- ▶ Consolidate improvements and produce additional change
- ▶ Institutionalize new approaches

Eayrs, S. and Pol, M. 2018.

*The myth of voluntary uptake of proven fishing gear: investigations into the challenges inspiring change in fisheries.*

## **Results**

- ▶ Voluntary uptake of proven fishing gear by fishers was rare and takes place over several years or longer if at all.
- ▶ Rare instances where uptake of gear was widespread was in response to financial gain or impending regulations.
- ▶ No evidence of voluntary gear uptake for long-term stewardship or protection of fish stocks or the environment.
- ▶ Majority of proven fishing gears remain unused by industry even if fishers were closely involved with the research unless required to do so by regulation.

Eayrs, S. and Pol, M. 2018.

*The myth of voluntary uptake of proven fishing gear: investigations into the challenges inspiring change in fisheries.*

## **Why Fishermen are Reluctant to Change**

- ▶ Fishers lack suitable motivation to respond to research outcomes
  - ▶ Extrinsic – receipt of financial or reward
  - ▶ Intrinsic – desire to perform
- ▶ Concerns that change will be costly or painful
- ▶ Perceived lack of incentives to offset any catch loss
- ▶ Perceived loss of control over their fishing operation/business
- ▶ Uncertainty about the future, including how they might be influenced or affected by change
- ▶ Perceived lack of opportunity, benefit, or reward from change

# Necessary Components of an Effective Mitigation Program

- ▶ Active **industry participation** in cooperative research builds trust and provides credibility.
- ▶ Partner with **fishing gear researchers** knowledgeable about methods and gear examined.
- ▶ Widespread use of conservation gear or methods depends on financial incentives and/or **regulatory requirements**.
- ▶ Regulatory requirements depend on **government cooperation** and participation in research.





# Necessary Components of an Effective Mitigation Program

- ▶ Choose an **appropriate useable mitigation** measure and resist overreach.
- ▶ Beware of the **“snake oil researcher”** if it seems too good to be true, it is.
- ▶ Work within the capabilities of **effective enforcement.**
- ▶ Examine the “Big Picture” of proposed mitigation to avoid **displaced impacts.**



# Examples of Sea Turtle Bycatch Mitigation Research Missteps

## **2006-2009 Trinidad Gillnet Bycatch Mitigation**

- ▶ Conducted research closely engaging industry throughout, but failed to engage government effectively.
- ▶ Developed multiple alternatives that reduced bycatch and maintained target catch.
- ▶ Despite extensive outreach efforts, industry resisted voluntary uptake.
- ▶ Attempts to engage the government were met with skepticism about the magnitude of bycatch and results of the studies.

# Examples of Sea Turtle Bycatch Mitigation Research Missteps

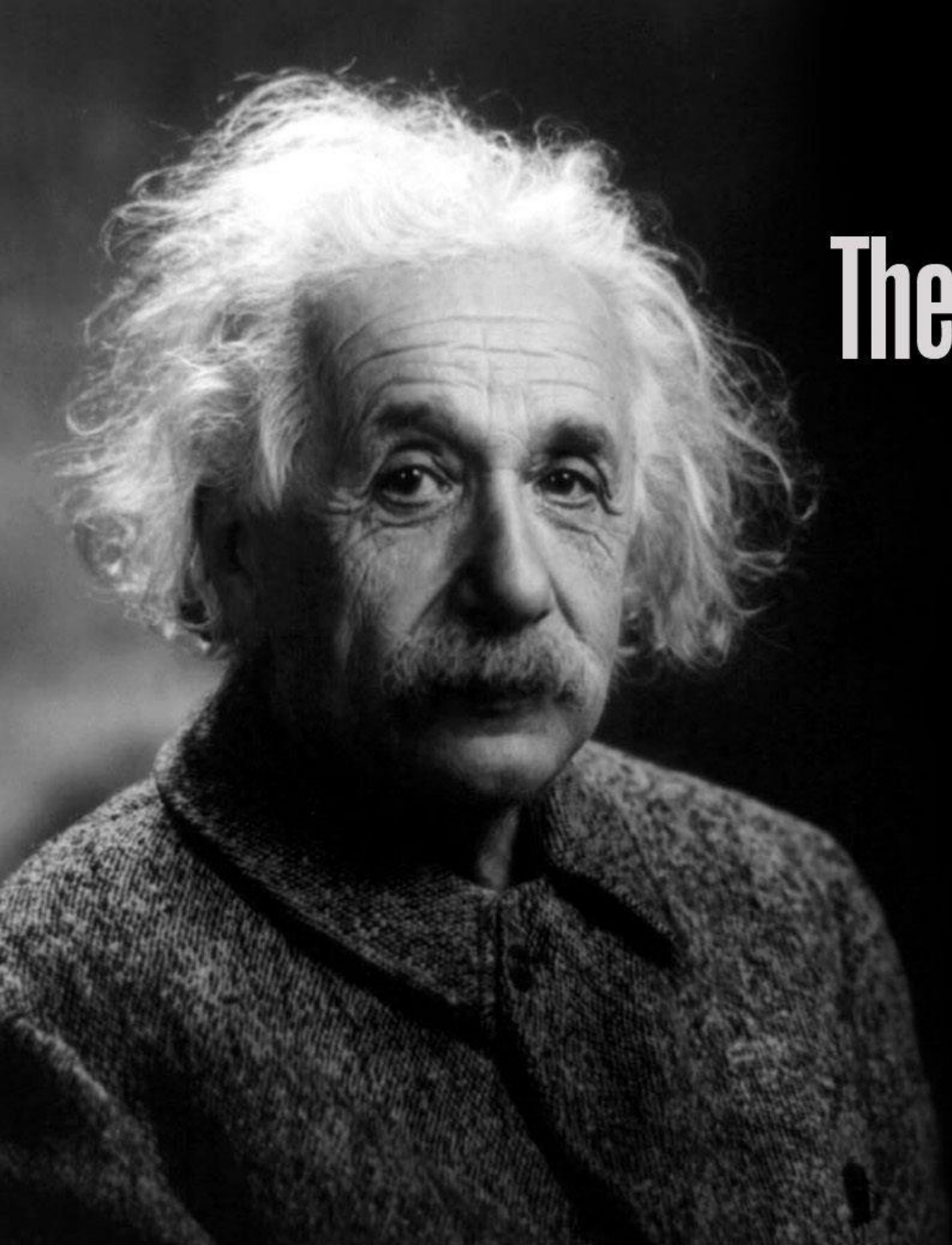
## **2001 Mozambique Turtle Excluder Device Technology Transfer**

- ▶ WWF-Mozambique partnered with Mozambique Ministry of Fisheries and a Local Fishery company to conduct limited research.
- ▶ Failed to seek assistance from TED experts.
- ▶ Results of the study variable with TED equipped nets showing loss and handling issues.
- ▶ Industry members are still resistant to TED use because “We’ve tried them before and they don’t work.”

# Examples of Sea Turtle Bycatch Mitigation Research Missteps

## **1984 NMFS Trawl Efficiency Device**

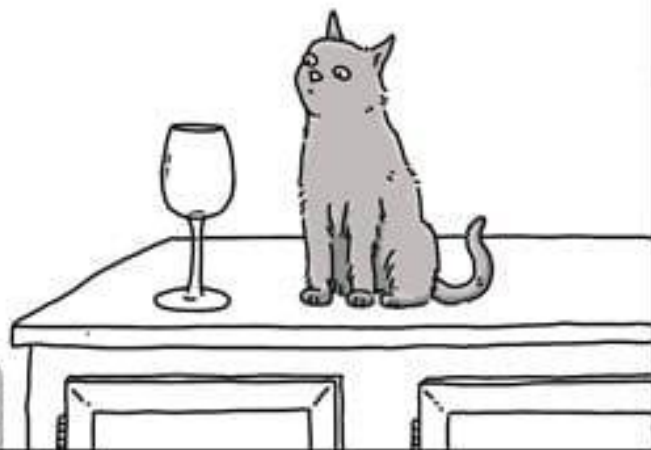
- ▶ The NMFS Turtle Excluder Device (TED) was not readily accepted by the industry and was reconfigured to facilitate finfish bycatch reduction.
- ▶ Despite finfish bycatch reduction rates of up to 50%, the industry rejected the device due to shrimp loss and size of the device.
- ▶ Similar results have been observed in other fisheries where researchers attempted unnecessary overreach early in their program.



**The only source of knowledge  
is experience**

**- Albert Einstein**

i wonder if this  
will bounce



theycantalk.com



maybe that one will

