THE ECONOMIC LINKAGES FROM AQUACULTURE THAT IMPACT THE RESILIENCY, SUSTAINABILITY, AND ECONOMIES OF LOCAL COMMUNITIES

Carole R. Engle, Ph.D.

Engle-Stone Aquatic$ LLC

cengle8523@gmail.com

ENGLE-STONE Aquatic$

ECONOMIC LINKAGES IN COMMUNITIES

Primary industry

Support industries

Induced effects

RESILIENCY OF COMMUNITIES: NEW ORLEANS BEFORE AND AFTER KATRINA

RESILIENCY OF COMMUNITIES:

JAPAN 2011 BEFORE AND AFTER GREAT EAST JAPAN EARTHQUAKE & TSUNAMI

RESILIENCY OF COMMUNITIES:

Sustainability

- Environmental Sustainability
- Food Security
- Social Responsibility
- Economic Sustainability

Monterrey Bay Aquarium

BEST CHOICES

Arctic Char (farmed)
Barramundi (US farmed)
Catfish (US farmed)
Clams (farmed)
Cobia (US farmed)
Cod: Pacific (Alaska longline)+
Crab: Dungeness, Stone
Halibut: Pacific+
Lobster: Spiny (US)
Mussels (farmed)
Oysters (farmed)
Sablefish/Black Cod
(Alaska+ or British Columbia)
Salmon (Alaska wild)+
Scallops: Bay (farmed)
Shrimp, Pink (Oregon)+
Striped Bass (farmed or wild*)
Tilapia (US farmed)
Trout: Rainbow (farmed)
Tuna: Albacore (troll/pole, US+
or British Columbia)
Tuna: Skipjack (troll/pole)

GOOD ALTERNATIVES

Caviar, Sturgeon (US farmed)
Clams (wild)
Cod: Pacific (US trawled)
Crab: Blue*, King (US), Snow
Flounders, Soles (Pacific)
Herring: Atlantic
Lobster: American/Maine
Mahi Mahi/Dolphinfish (US)
Oysters (wild)
Pollock (Alaska wild)+
Salmon (Washington wild)*
Sablefish/Black Cod
(California, Oregon or Washington)
Scallops: Sea (wild)
Shrimp (US, Canada)
Squid
Swai, Basa (farmed)
Swordfish (US)*
Tilapia (Central America, farmed)
Tuna: Bigeye, Yellowfin (troll/pole)
Tuna: Canned Skipjack and Albacore*

AVOID

Caviar, Sturgeon* (imported wild)
Chilean Seabass/Toothfish*
Cobia (imported farmed)
Cod: Atlantic, imported Pacific
Flounders, Halibut, Soles (Atlantic)
Groupers*
Lobster: Spiny (Caribbean)
Mahi Mahi/Dolphinfish (imported)
Marlin: Blue*, Striped*
Monkfish
Orange Roughy*
Salmon (farmed, including Atlantic)*
Sharks*, Skates
Shrimp (imported)
Snapper: Red
Swordfish (imported)*
Tilapia (Asia farmed)
Tuna: Albacore, Bigeye, Yellowfin
(longline)*
Tuna: Bluefin*, Tongol, Canned
(except Albacore and Skipjack)
Yellowtail (imported farmed)

SUSTAINABILITY COSTS MONEY

Waste discharge treatment systems

Sewage systems

Recycling costs money

Organic & natural products are more expensive

Whole Foods = “Whole Paycheck”

What about U.S. aquaculture & its contribution to communities?

FISH FARMS TYPICALLY SMALL BUSINESSES:

FAMILY & COMMUNITY IMPORTANT

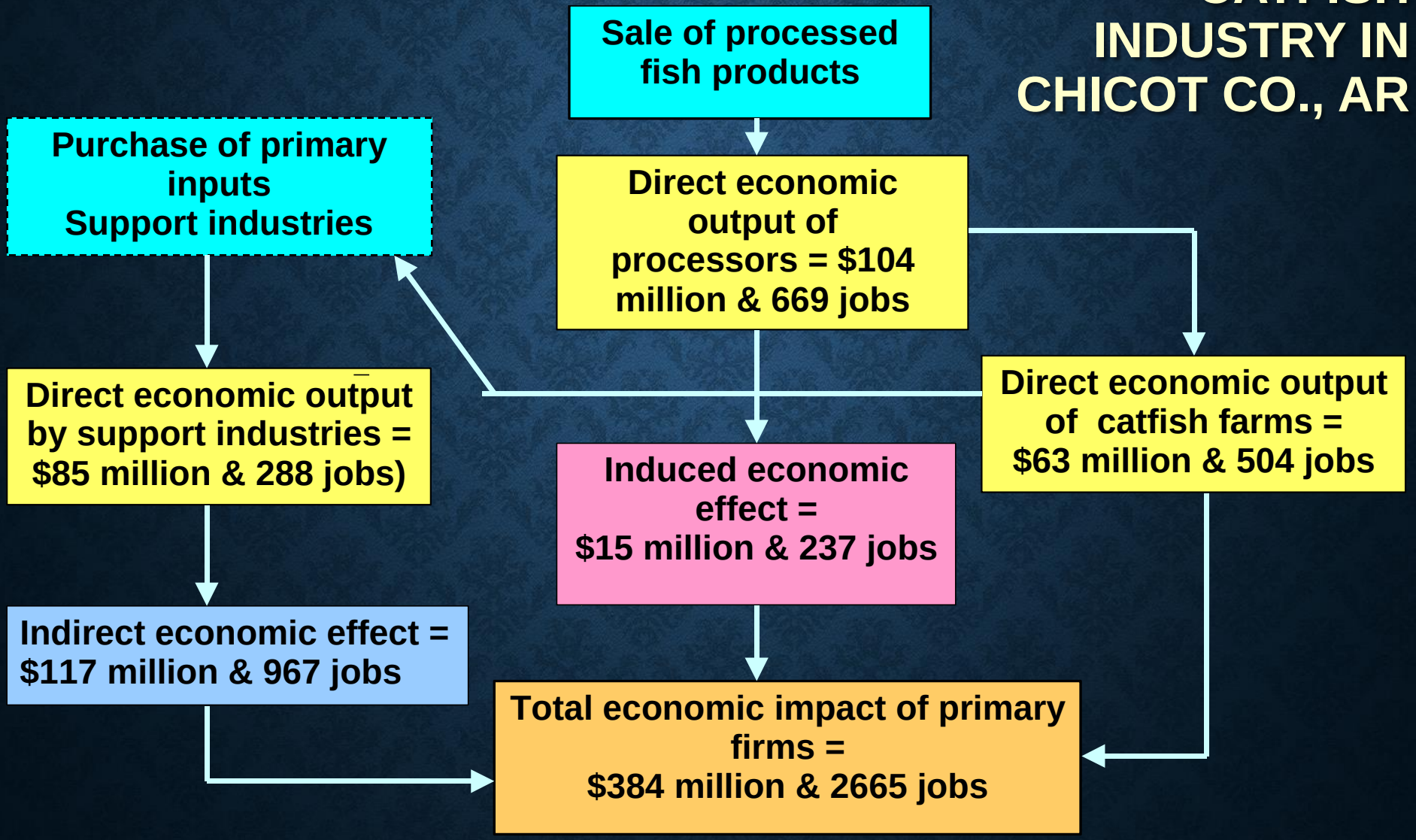
KEEP YOUR FRIENDS CLOSE AND YOUR FARMERS CLOSER.

LOCALLY GROWN FOOD FROM LOCALLY GROWN FARMERS.

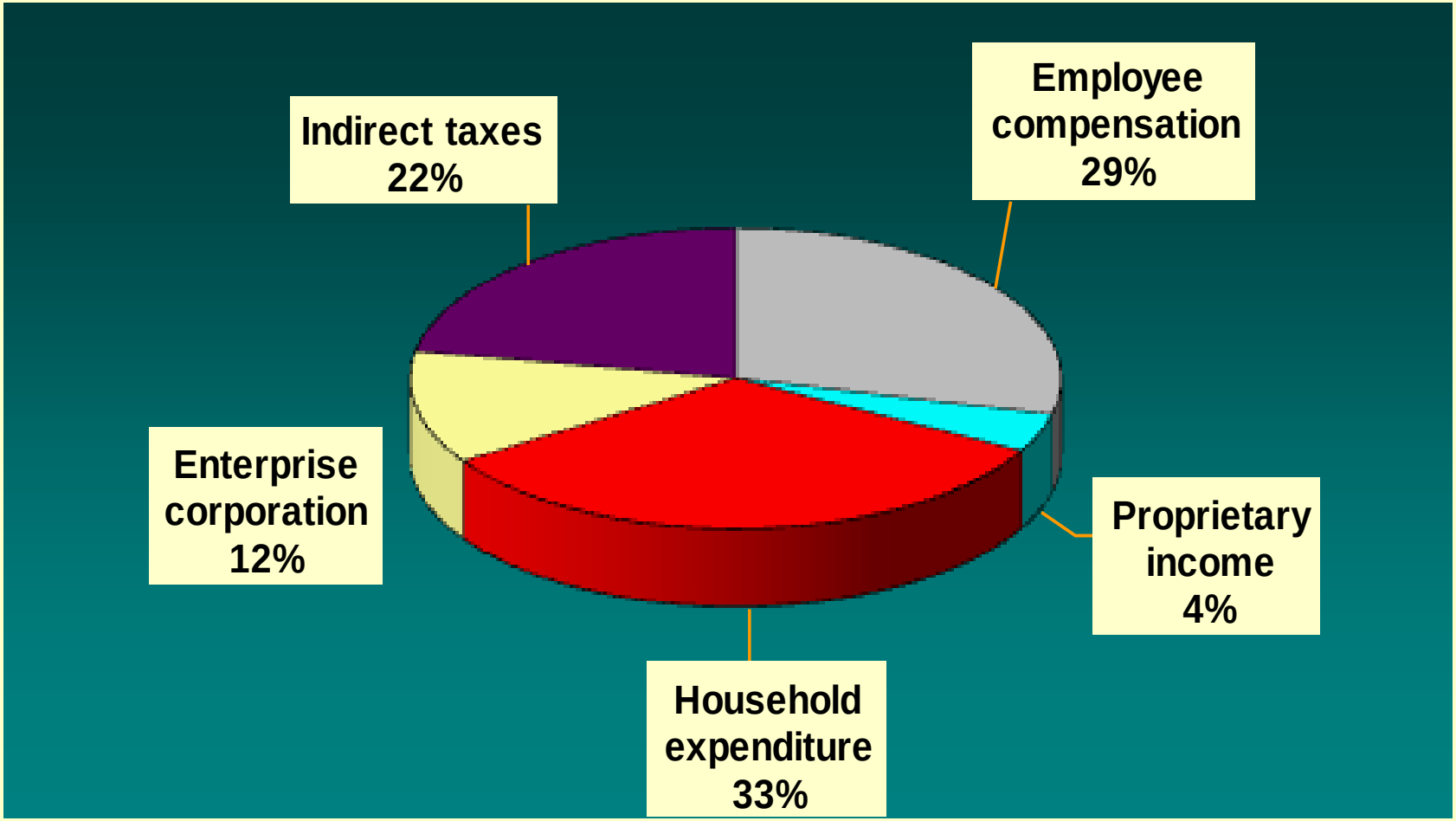
Much of U.S. aquaculture occurs in impoverished rural areas.

What does economic growth look like on the ground?

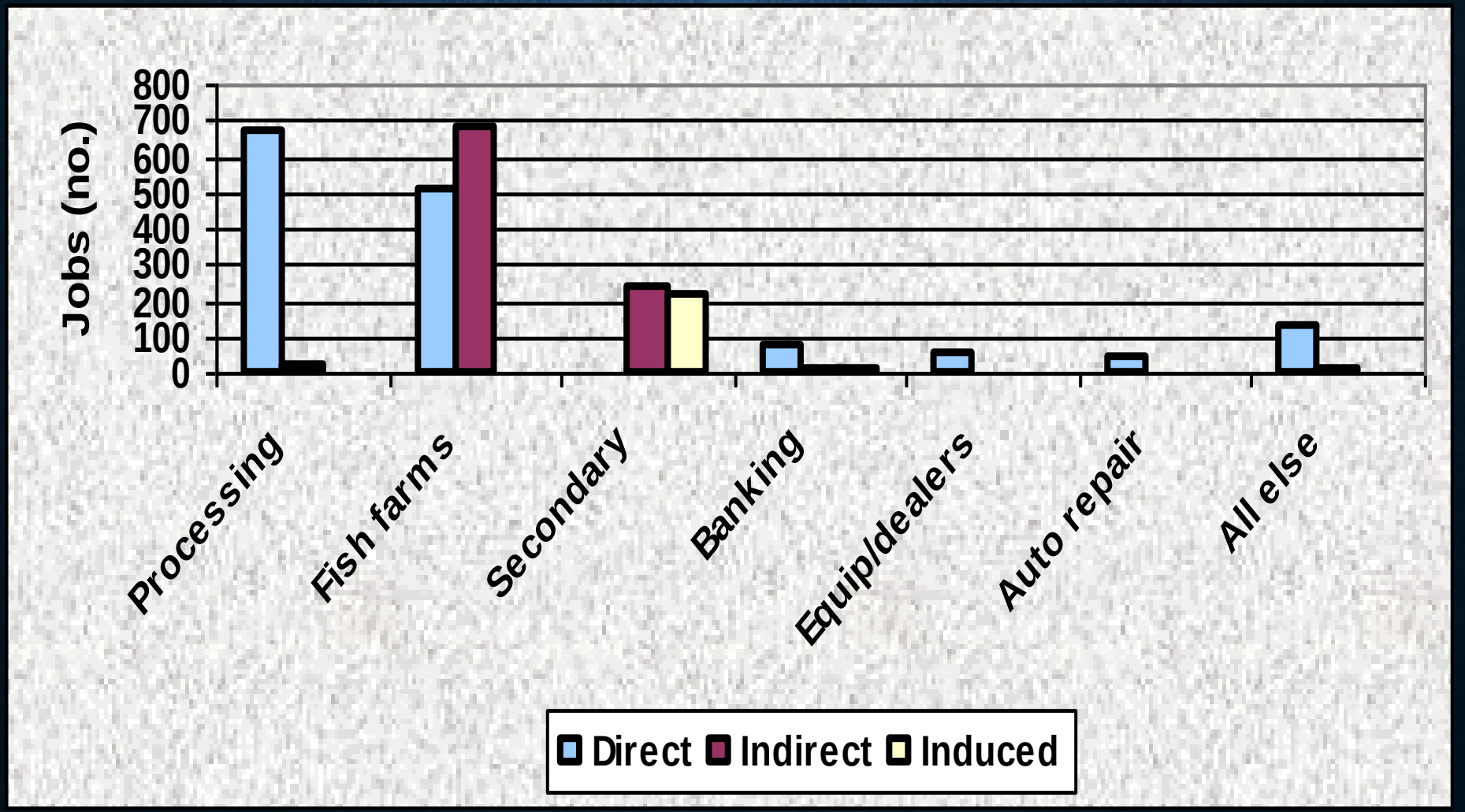
ECONOMIC IMPACT OF CATFISH INDUSTRY IN CHICOT CO., AR



Tax Revenue Generated



EMPLOYMENT GENERATED



HOW DO BAITFISH & SPORTFISH IMPACT THE ECONOMY?

Tackle
Boats
Lodging
Food
Gas

VAN SENTEN (2016):

Sectors Most Affected

- Auto
- Comm
  Repa
- Coun
- Own
- Real
- Repa
  Tunn

Total economic contribution of recreational trout in western U.S. = $2 billion annually

ridges,

SO WHAT DOES THIS HAVE TO DO WITH WOMEN IN AQUACULTURE?

Viable aquaculture farms =

* economic opportunities
* strong communities
* public revenue for quality of life enhancements

HOW DO WE DEFINE THE COMMUNITY OF AQUACULTURE?

Women have long been involved in the Community of Aquaculture:

Farming

Loading & Hauling Fish

Transporting

Packing fish for shipment

Doing whatever is needed for the farm business.

THE COMMUNITY OF AQUACULTURE OFFERS MULTIPLE OPPORTUNITIES FOR WOMEN TO ENGAGE IN THE WAY AND ON THE LEVEL THAT THEY CHOOSE.

CAN BE THE LOCAL EXTENSION SPECIALISTS WHO HELPS FARMERS WITH PROBLEMS

CAREER IN LABORATORY FINDING SOLUTIONS FOR AQUACULTURE FARMS

DIAGNOSTICIAN CHECKING FISH ON A FARM

RESEARCHER SOLVING FARM PROBLEMS

RESEARCHER FOCUSED ON FARM PROBLEMS

WHAT IS YOUR ROLE IN THE COMMUNITY OF AQUACULTURE?

Carole R. Engle, Ph.D.

Engle-Stone Aquatic$ LLC

cengle8523@gmail.com

ENGLE-STONE Aquatic$