

# **A SYSTEMS APPROACH TO RANCHING**



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Management***

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# UNDERSTAND THE PROBLEM FIRST!

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**“We don’t need better solutions, we need better thinking about problems”**

***Russell L. Ackoff, PhD  
Anheuser-Busch Professor Emeritus  
of Management/Systems Science  
Wharton School, Univ. of Pennsylvania***



# OVERVIEW

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## **Philosophical discussion**

- **Future**
- **Trends**
- **How We Think!**

## **Ranch Business**

- **Priorities**
- **Risk**

## **Systems Thinking**

- **Finding Leverage**
- **Iceberg Concept**
- **Example: Cattle vs. Wildlife Management**



# THE BIG PICTURE



# THE FUTURE...

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**"...the future  
is becoming  
much less  
predictable."**

*Dr. Michael Boehlje*

*Distinguished Professor of Economics*

*Purdue University*



# IMPORTANT TRENDS

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## ➤ **Industry Wide**

- ↑ **Consumer interest in food production practices**
- ↑ **World population/food demand**
- ↑ **Regulations and complexity of business**
- ↓ **U.S. cowherd**

## ➤ **At the Ranch**

- ↑ **Climate variation (?)**
- ↑ **Cattle prices**
- ↑ **Feed prices**
- ↑ **Land values and fragmentation**
- ↓ **Willing and skilled ranch labor**

**How will your operation be successful?**



# ADAPTABILITY!

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**“It is not the well adapted that will thrive, but the adaptable.”**

***Michael Swanson, PhD  
Chief Agricultural Economist  
Wells Fargo***



# WHAT WILL YOU DO TO PREPARE FOR A LESS PREDICTABLE FUTURE?

## How will you think?

- **Tactical**
- **Strategic**
- **Both!**

## What will be your decision-making perspective?





# CREATIVE DESTRUCTION

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**...suggestion by Charles Koch, *CEO Koch Industries, Inc.***

*(The Science of Success, 2007)*

- **Every seven years a company or organization should go through the process of recreating their business entity from scratch**
  - ✓ **CREATIVELY destroying the old model**
  - ✓ **Rebuilding a more modern approach**

**\*\*\*this does not imply ignoring our ranching heritage**



# KEY COMPONENTS

*Flexible*

*Opportunistic*

*Clarity of Vision*



# HOW DO WE CREATE A MORE RESILIENT RANCHING OPERATION?

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## A Systems Approach...

- **A mindset or way of thinking**
- **Seeing the whole...and how the parts are interconnected**



**Find LEVERAGE!**



# LEVERAGE POINTS

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## Characteristics

- **Long lasting and self sustaining**
- **Change long term patterns of performance**
- **Entrenched mental models**
- **Stop or doing something**
- **Start or doing**

**Task: Find a few leverage points that solve problems and/or create greater flexibility!**

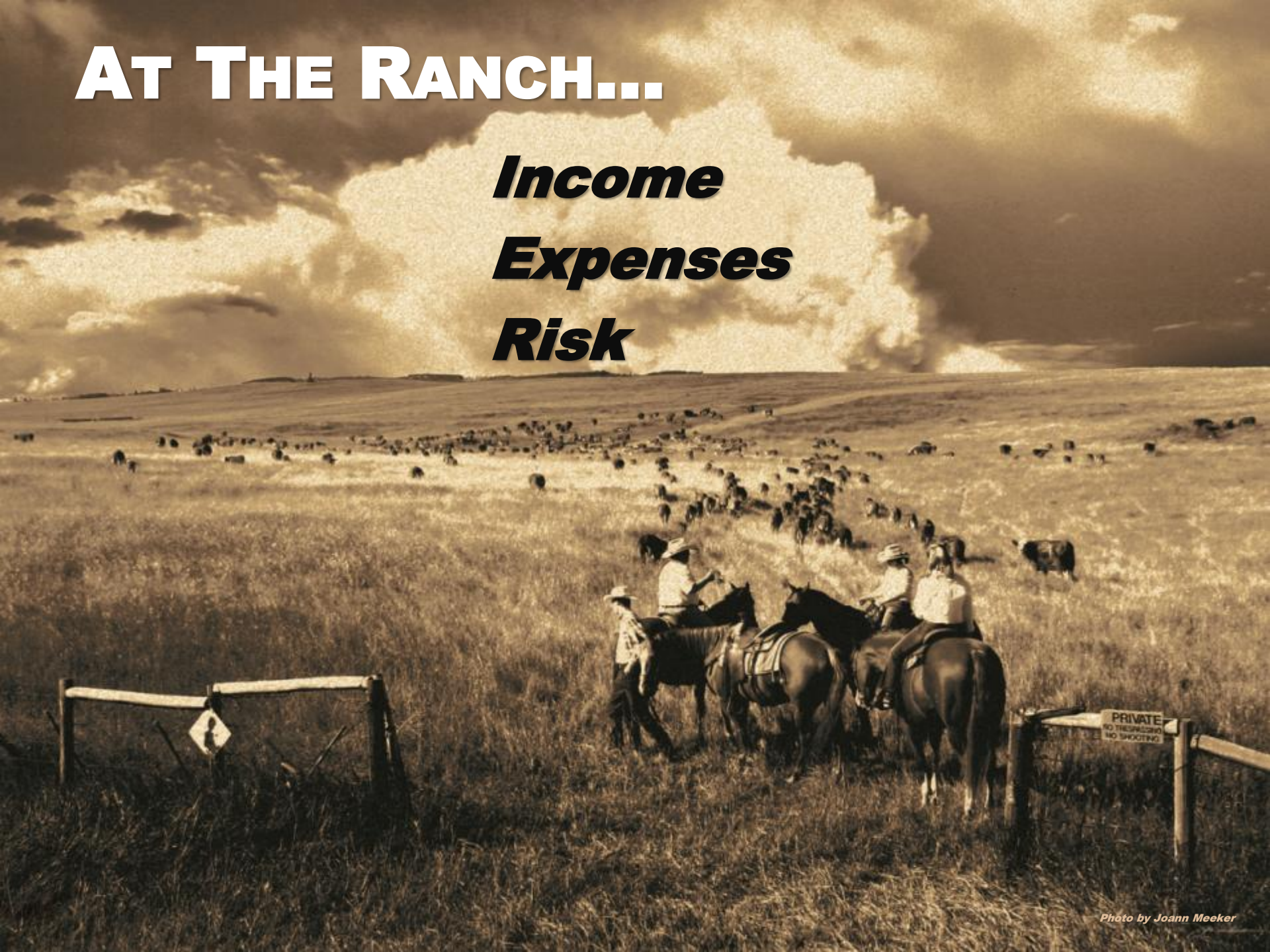


# AT THE RANCH...

***Income***

***Expenses***

***Risk***



# TYPICAL SOURCES OF RANCH REVENUE

**Livestock**

➤ **Cattle**

**Wildlife**

**Minerals**

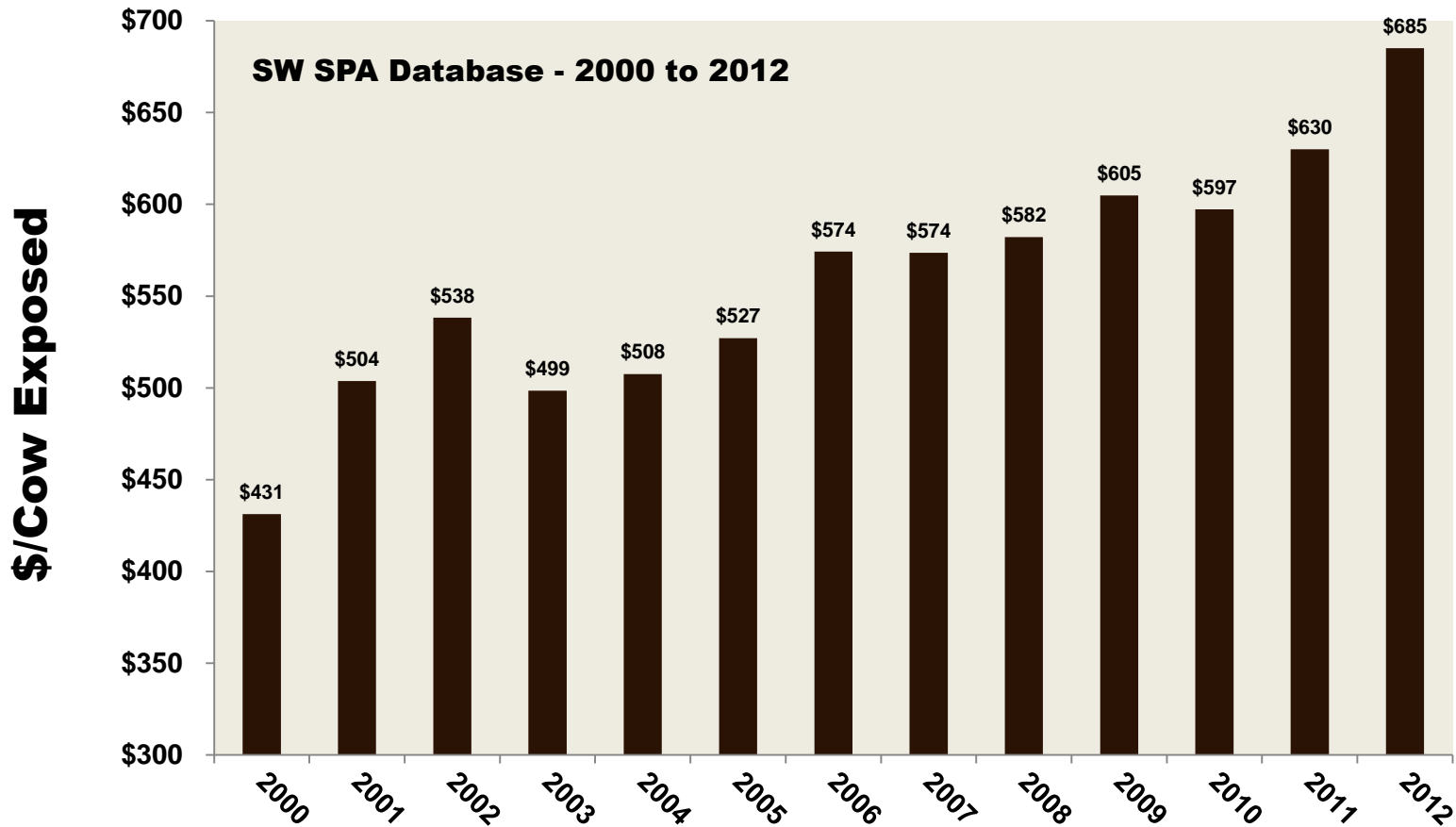
**Other?**

**= Total Ranch Income**

**Know the trade-offs to  
find BALANCE!**



# COW/CALF EXPENSES



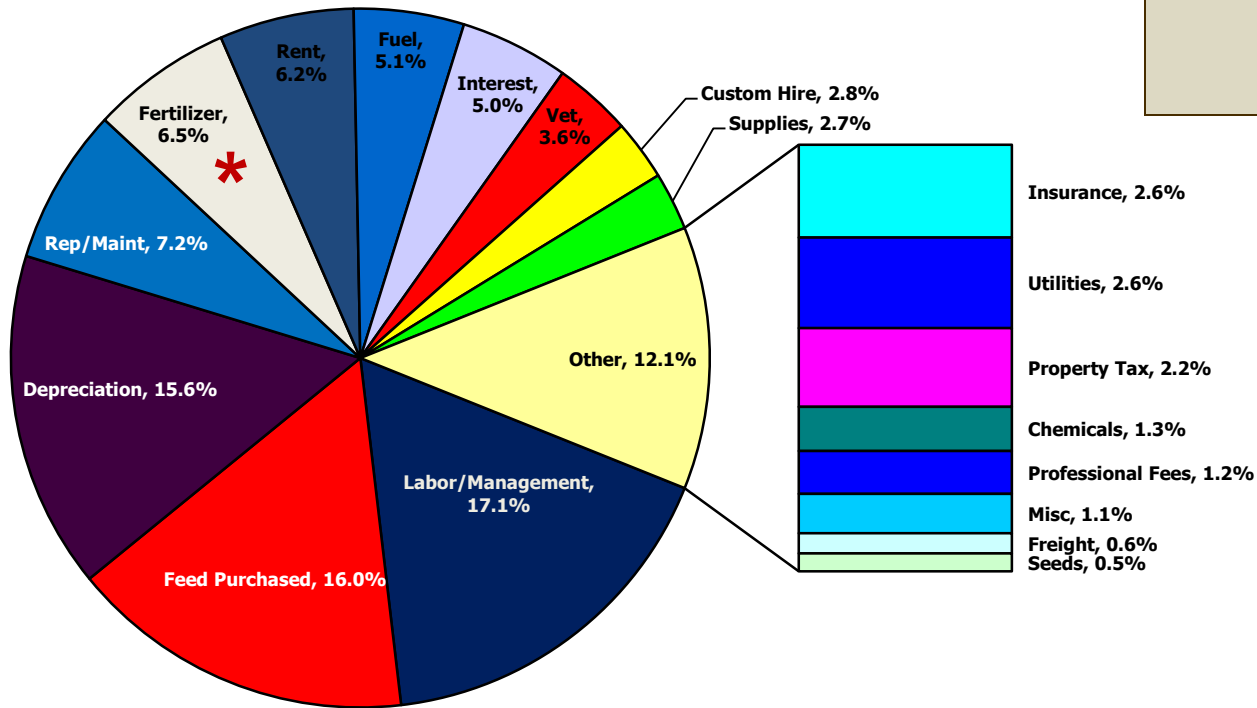
Source: Stan Bevers, TAMU

# SOUTHWEST SPA RESULTS

## EXPENSE BREAKDOWN PER FEMALE

**Average Total Cost per Cow = \$588**

Average of 78 herds, 2006-2012



### The Big Three:

- **Labor**
- **Feed**
- **Depreciation**

Source: Stan Bevers, TAMU





# PRIMARY RISK IN FLORIDA ?

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## What do we know about risk to ranching in Florida?

- **Energy cost - Fertilizer and freight**
- **Regulatory creep = increasing cost**
- **Availability of water for Ag use**
- **Qualified labor**

**Must design a ranching system to reduce exposure risk inherent to your operation!!**

➤ **HOW?**



# COMPONENTS OF SUCCESS

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- **Flexible to protect the core business**
- **Enterprise diverse to spread risk**
- **Managed for the good of the whole ranch, not to maximize the pieces**

**There is no “best” mix of enterprises or practices for ranching!**



# BARRIERS TO SUCCESS?

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## What's your Problem/Challenge?

- ...are the solutions  
simple?

## Systems Project -



# IDENTIFYING AND BRIDGING THE GAP

**Desired**



**Gap/Tension**

**Actual**

## What Management Wants

- **Maximized, long-term profit from multiple ranch enterprises**

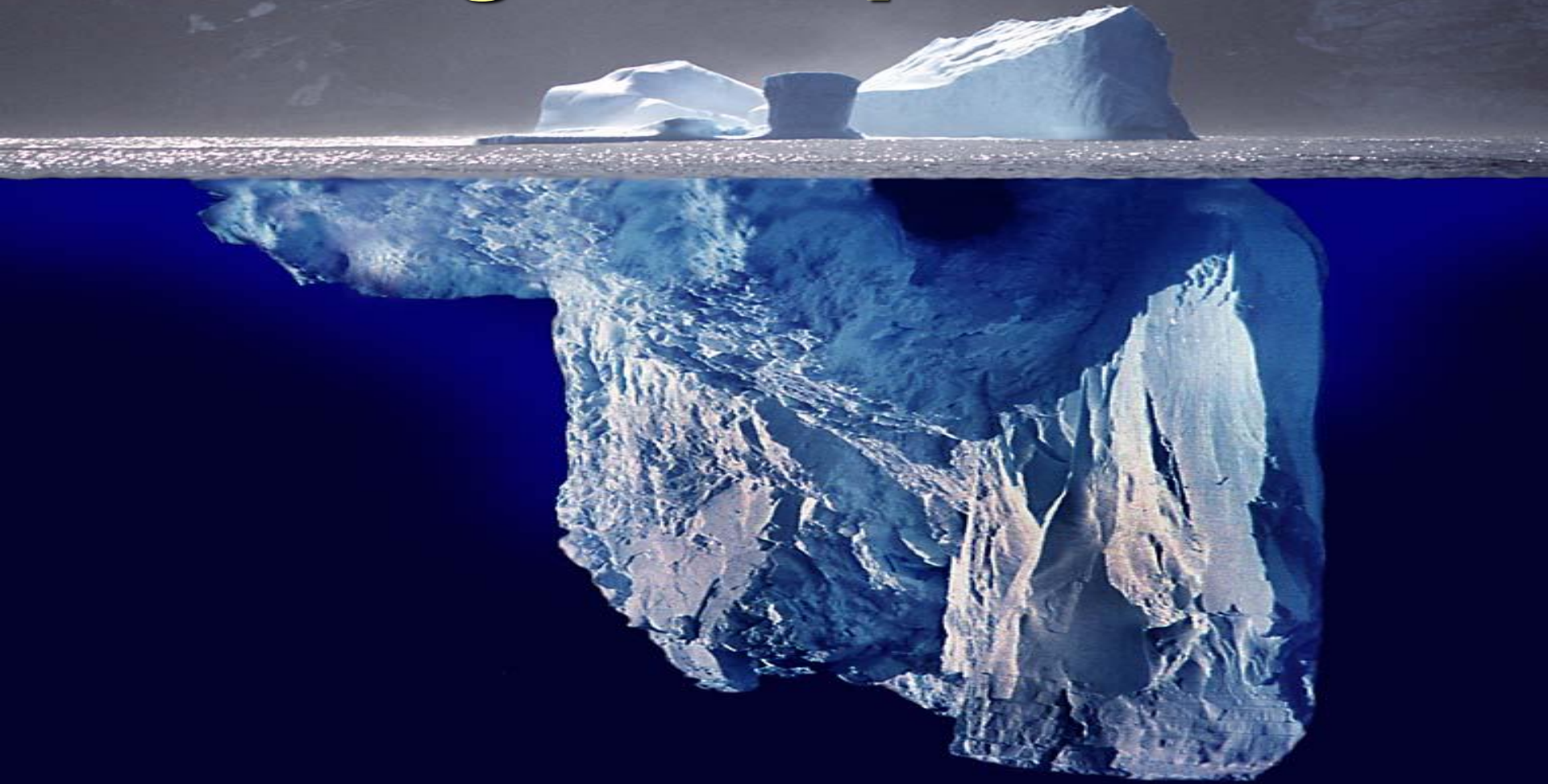


## What Management Has

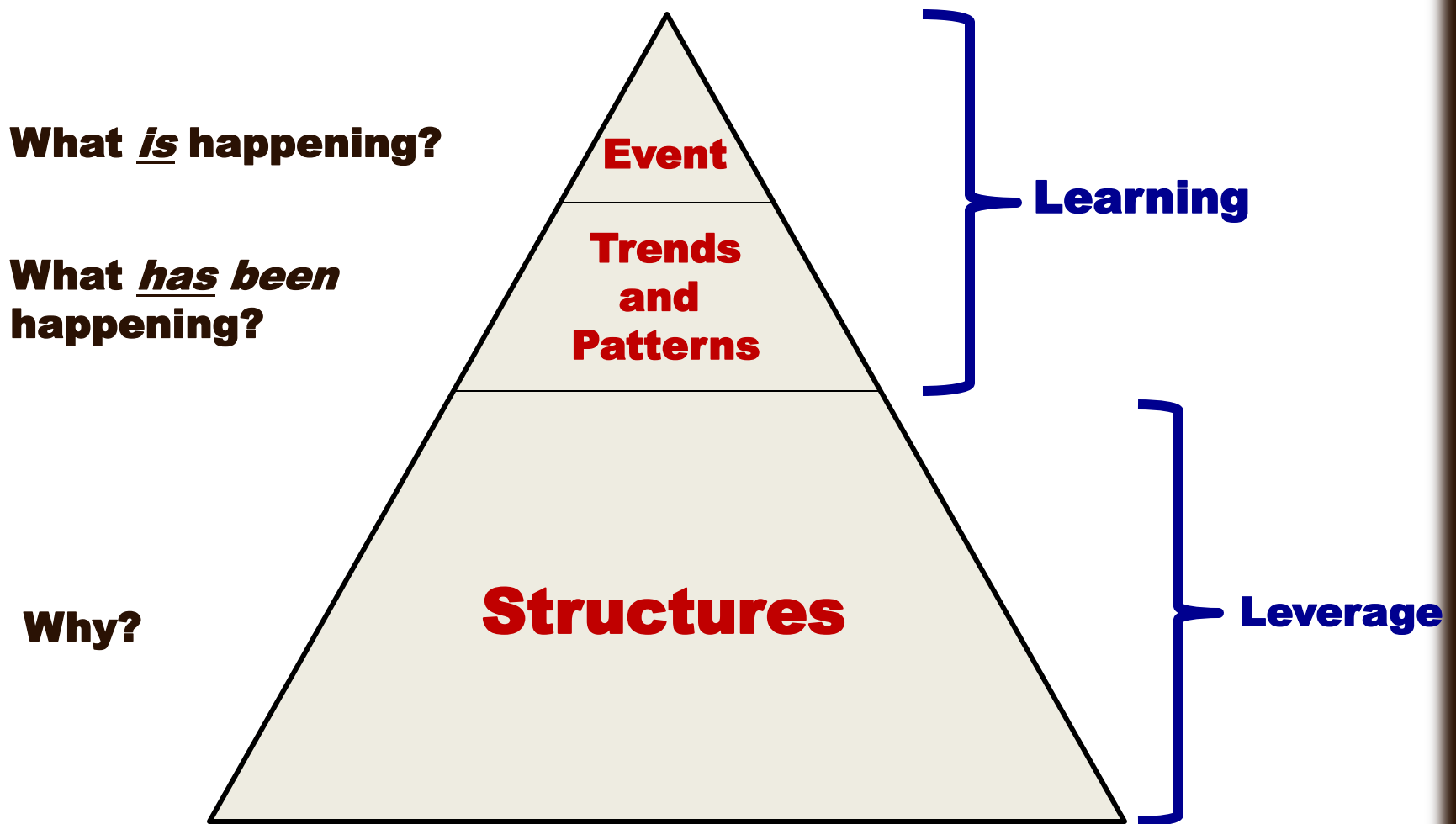
- **Multiple enterprises but profit is not maximized because of conflict among profit centers**



# Iceberg Concept



# ICEBERG CONCEPT



# CONSIDER CONFLICT BETWEEN PROFIT CENTER MANAGERS: **CATTLE VS. WILDLIFE**



# GETTING TO “WHY”

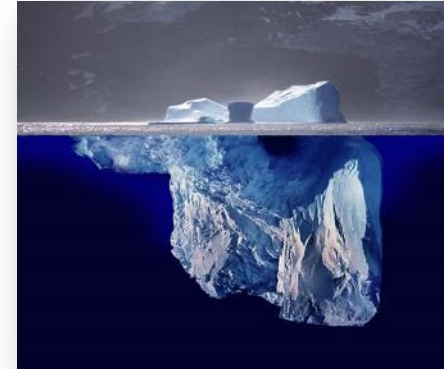
## ...CATTLE VS. WILDLIFE

### What is happening?

- **Conflict between cattle and wildlife managers**

### What has been happening?

- **Ownership desires maximal profit**
- **↑ employees supporting wildlife enterprise**
- **↑ wildlife revenue**
- **↑ wildlife population**
- **↑ competition for habitat/space**
- **↓ % revenue from cattle**
- **↑ change from traditional cattle ranching**
- **↑ ranch rules/management parameters**
- **↑ complexity of natural resources management**
- **↑ complexity of whole ranch**



# WHY?





# MENTAL MODELS



## Cattle Managers

- **maximize profit of cattle operation**
- **maintain maximal cows within sustainable grazing**
- **hunting limits my ability to rotate grazing**
- **food plots reduce my grazing acreage**

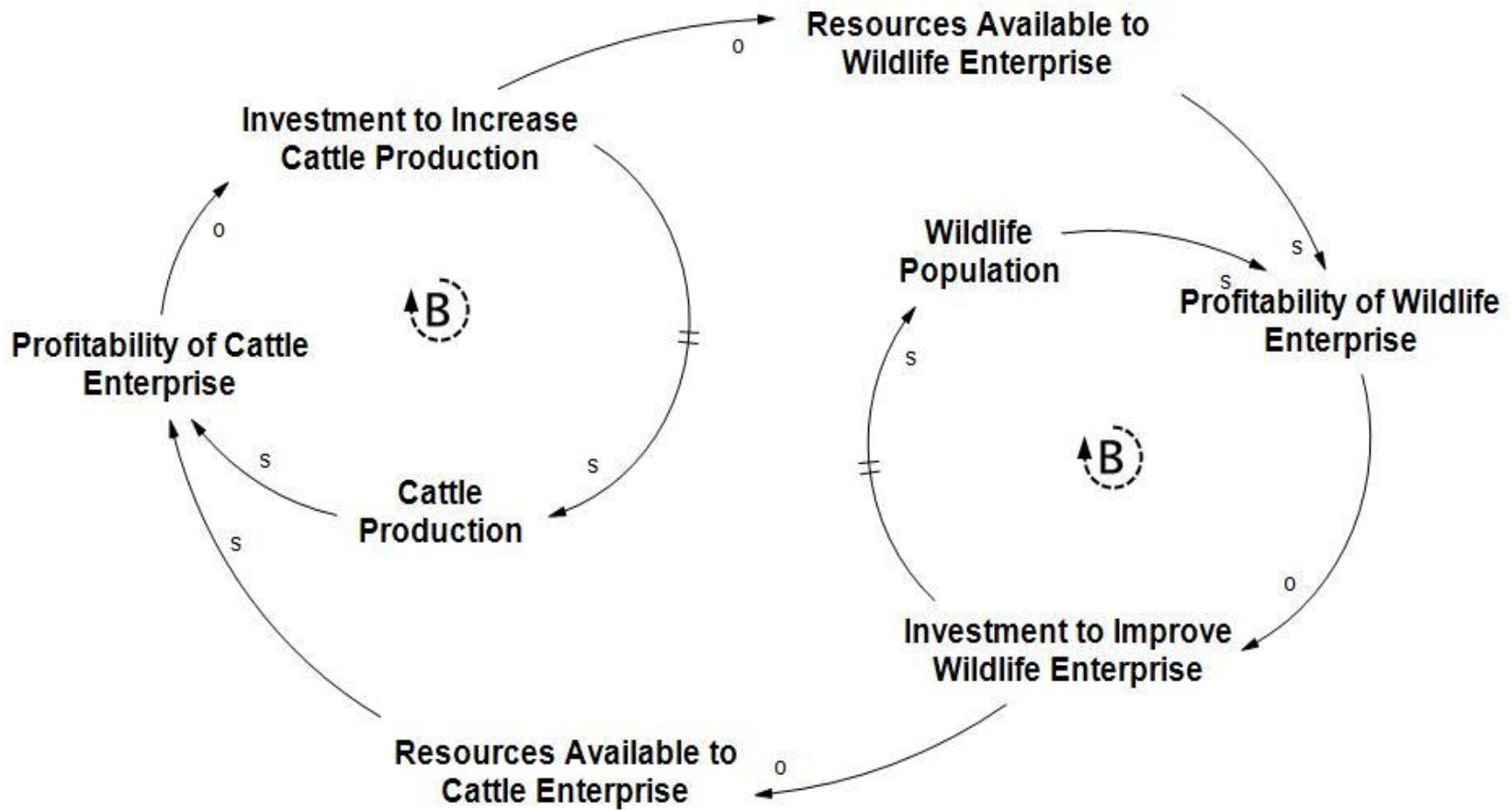


## Wildlife Managers

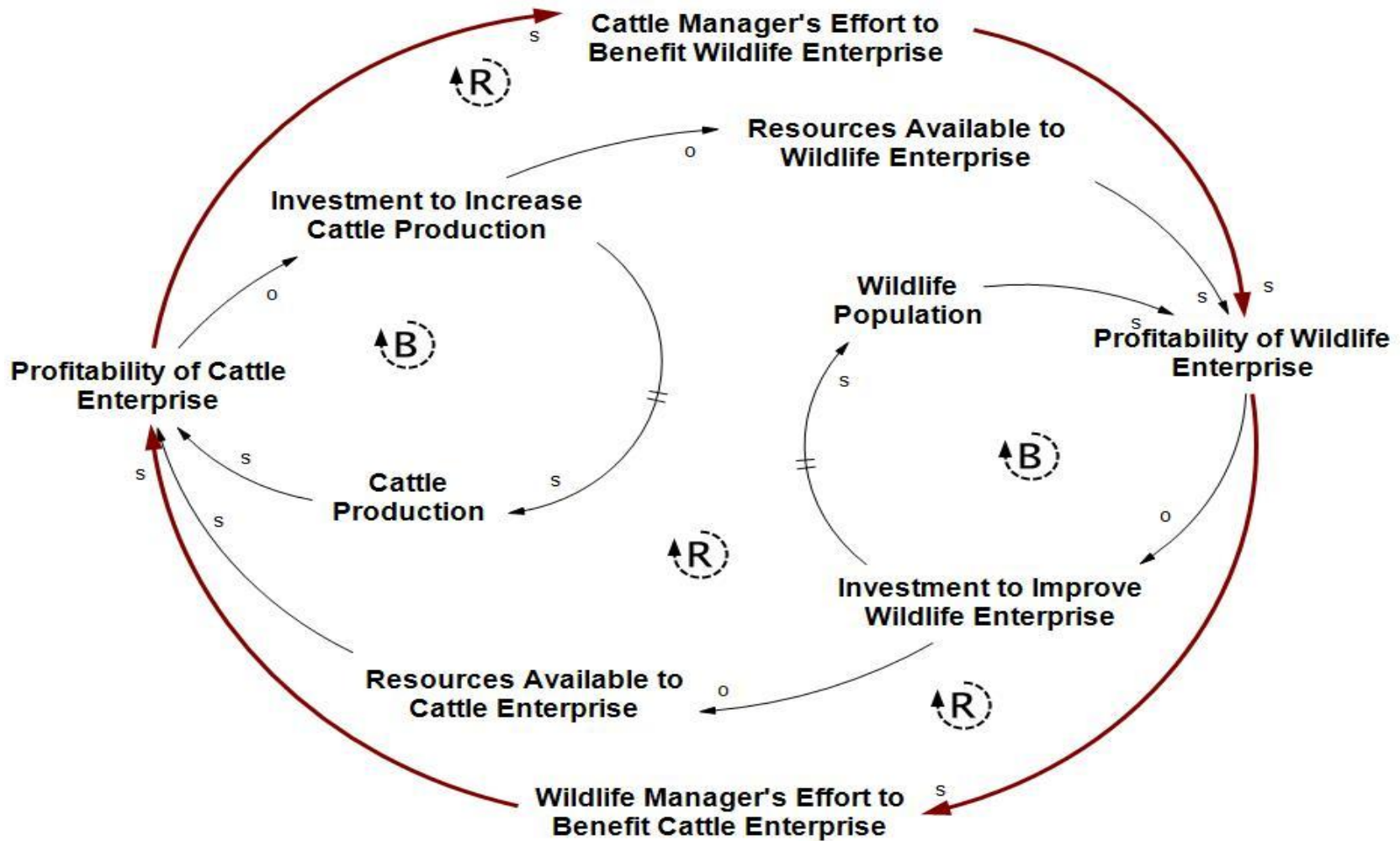
- **maximize hunting profit**
- **↑ wildlife population**
- **do more to provide hunters success and great experience**
  - ✓ **Minimize hunt disruption – rules!**
- **need more food plots**



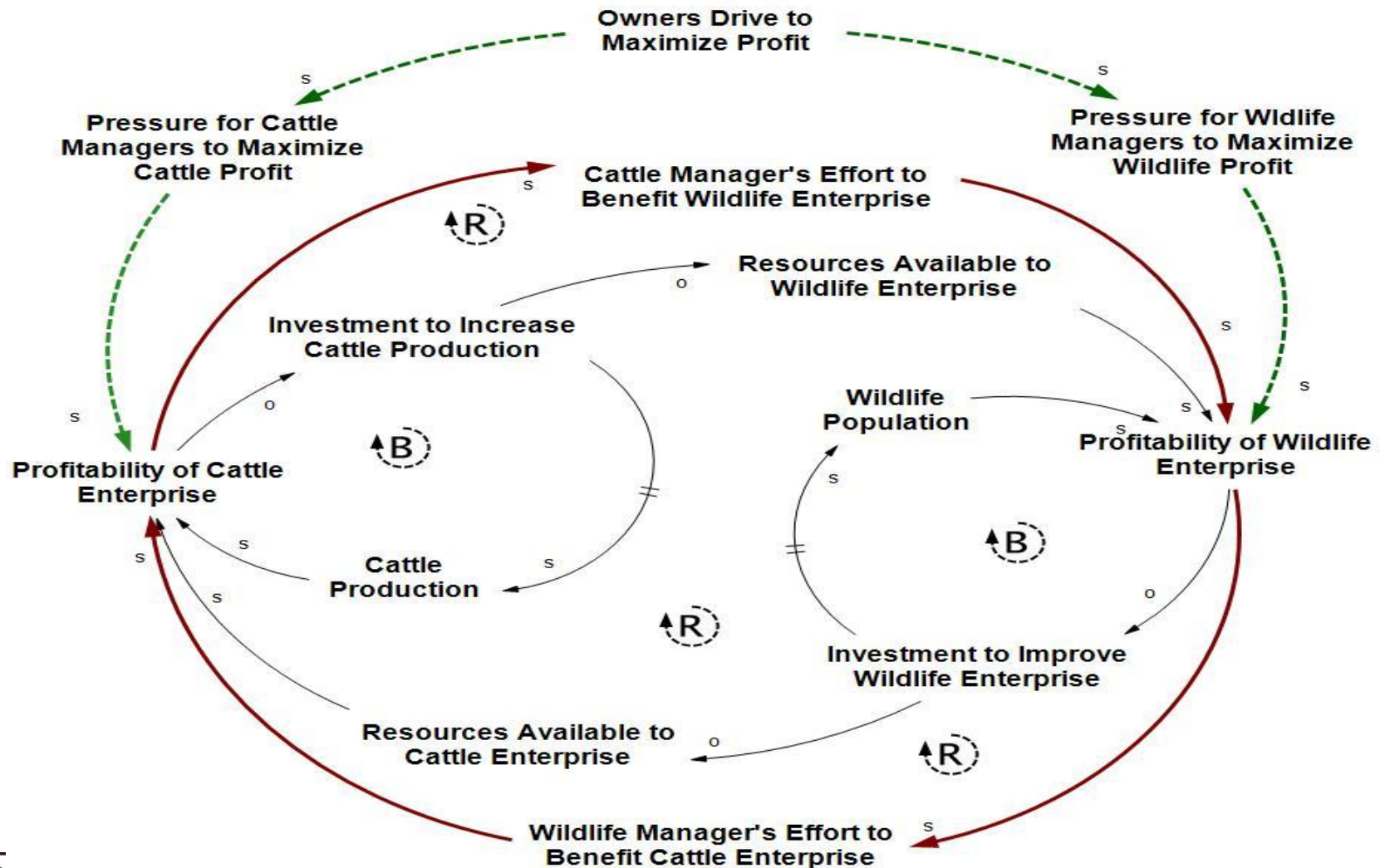
# STRUCTURE OF THE PROBLEM



# STRUCTURE OF THE PROBLEM + IDEAL



# OTHER DRIVERS OF THE SYSTEM



# POTENTIAL HIGH IMPACT SOLUTIONS

## Communication

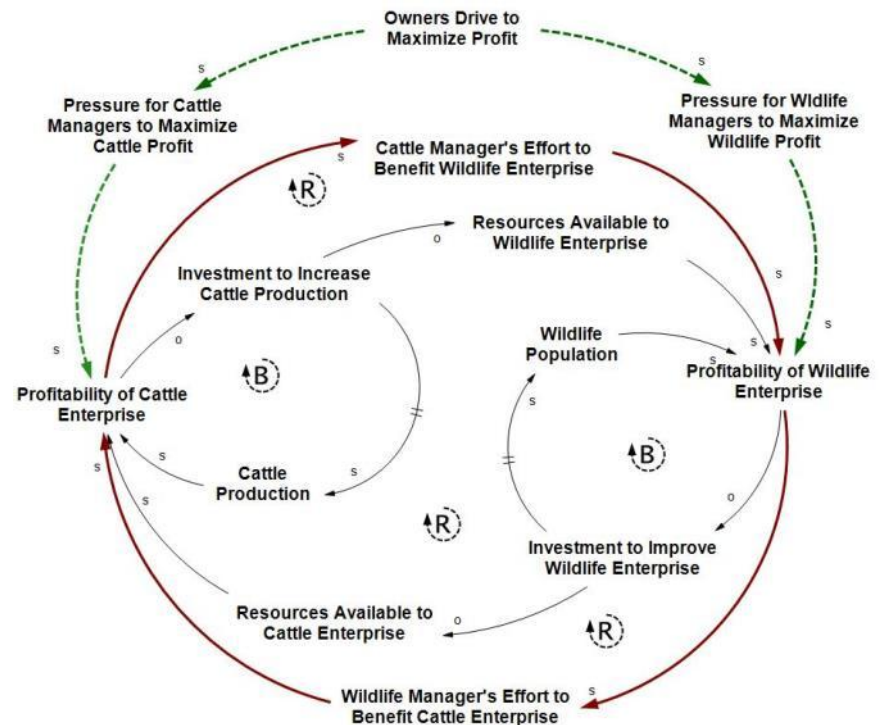
- **Everyone must understand the whole picture**

## Understanding

- **Acknowledgement across the ranch employees that both cattle and wildlife cannot be maximized...**
  - ✓ **Optimize the entities to maximize achievement of ranch goals**

## Incentive

- **Bonus structure must reward mutual success**



# SUMMARY

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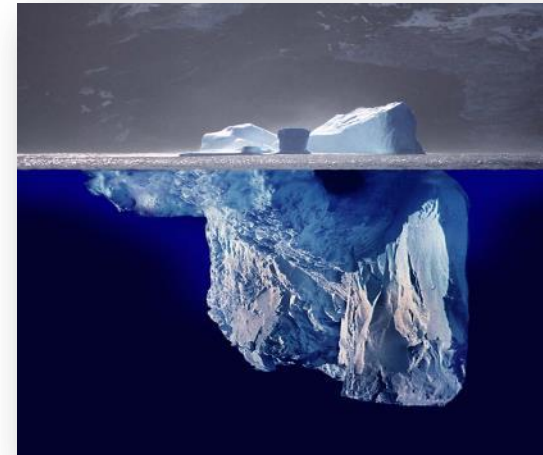
**Consider “Creative Destruction”**

**Use a “Systems Approach” to Problem Solving**

- ✓ **What is happening?**
- ✓ **What has been happening?**
- ✓ **Why?**

**Look for Leverage Points that will help your  
Ranching Enterprise be more Flexible**

**Managed for the good of  
the whole ranch, not to  
maximize the pieces!**



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# MORE ON SYSTEMS THINKING

Learn what it takes to manage a dynamic ranching operation through the language for learning and action.....

## Systems Thinking

for natural resources problem solving

John B. Armstrong Lectureship on  
Systems Thinking

August 11-14, 2014

Registration: \$500

Kingsville, Texas





# THANK YOU!

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**Clay P. Mathis**  
**Director and Robert J. Kleberg, Jr. and Helen C. Kleberg Endowed Chair**  
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