

# Agricultural Market Reform: Lessons From Kenya

Gem Argwings-Kodhek

National APIS Workshop on ASWAp II

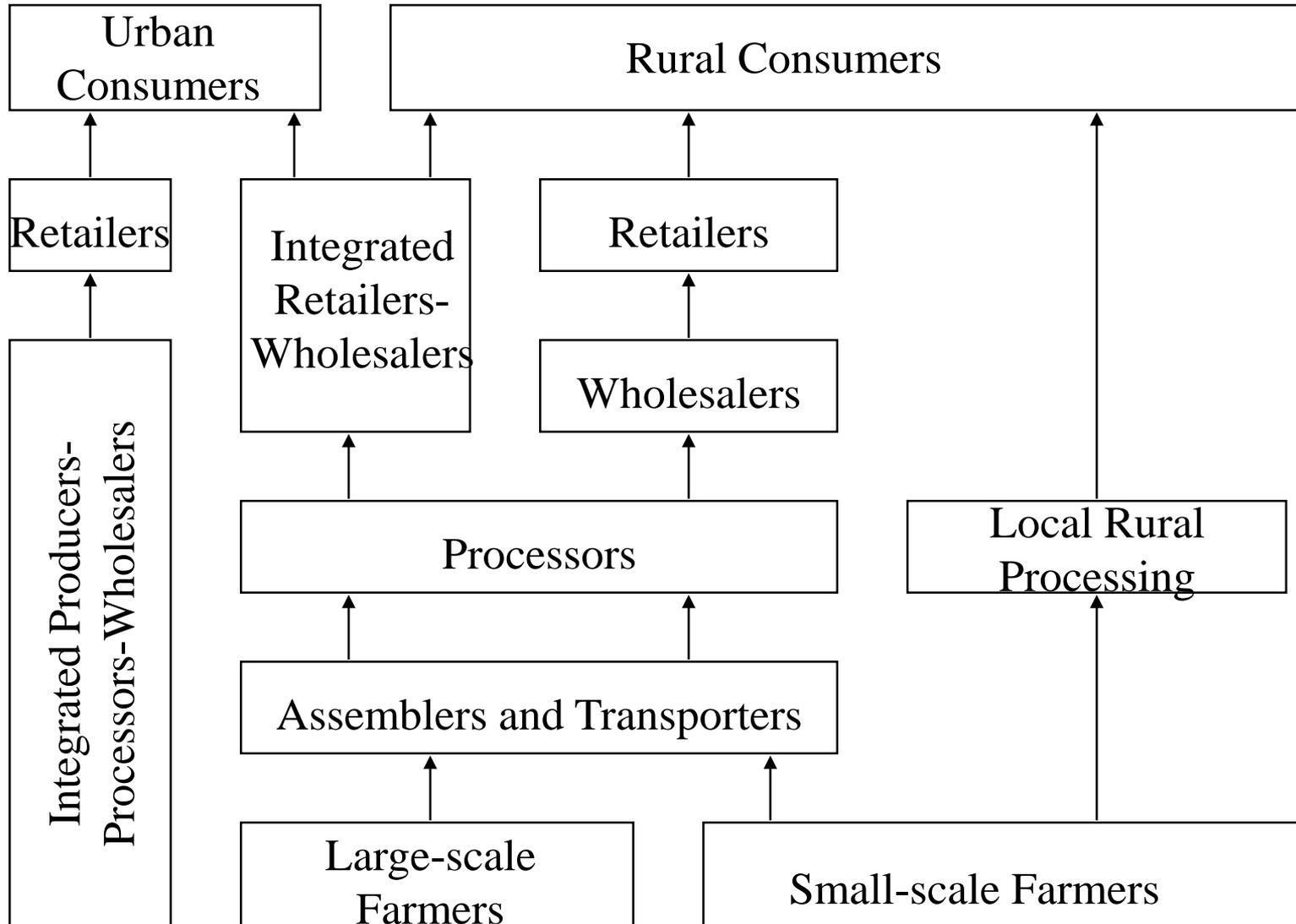
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# Objectives

- Present the theory behind the efforts to improve the operation of agricultural markets in Africa
- To illustrate and apply institutional analysis with examples from pyrethrum, coffee, sugar, and maize in Kenya
- To suggest lessons for Malawi

# *Example: A food/commodity marketing system*



# Ag Econ 101

- “Price discovery” vs. “price determination”
- “Pricing efficiency” in agricultural markets with respect to:
  - Time
  - Place
  - Form
- “Risk”
  - Whenever you have a storable commodity whose price is subject to change
  - Risk cannot be eliminated, only redistributed

# “Price discovery” vs. “price determination”

- **Price determination:**

- *Economic forces of supply and demand . . .*

- Weather, exchange rates

- and *government pricing policies . . .*

- Maize price floor, import or export ban, tariff, licenses

- *influence prices under various market structures*

- Competition, oligopoly, monopoly

- **Price discovery:**

- The process by which *buyers and sellers arrive at specific* prices and other terms of exchange

# Price discovery institutions

- Not possible to discuss price discovery without reference to institutions:
  - Price discovery occurs in an institutional context.
  - Price discovery is a **costly** process,
  - Which is often characterized by **asymmetric information**,
  - And by **collective action problems**.
  - Price discovery involves **three dimensions**: Time, place, and form.

# Price discovery institutions in agriculture

	<b>Individual Negotiations</b>	<b>Group Bargaining</b>	<b>Spot Auctions</b>	<b>Commodity Futures</b>	<b>Formula Pricing</b>	<b>Administered Prices</b>
<b>Characteristics</b>	Decentralized negotiations between buyers and sellers	Groups, associations, or cooperatives that negotiate on behalf of farmers, processors, or wholesalers	Competitive bidding in centralized markets based on physical inspection of commodities	Organized exchanges for storable commodities based on standardized contracts with respect to grade, time, and location	Prices based on benchmark prices either in central markets, or according to, say, butterfat or protein content	Prices established and controlled by governments, usually for political reasons
<b>Examples</b>	<p>Maize marketing in Kenya</p> <p>Most food items in Most places</p> <p>Eggs, tomatoes in Malawi</p>	<p>Kenyan sugar</p> <p>Kenya Cooperative Creameries</p> <p>Contract barley and tobacco</p>	<p>Coffee and tea auctions in Kenya</p> <p>livestock market</p> <p>Malawi Tobacco</p>	<p>Grain marketing in South Africa</p> <p>Chicago</p> <p>Malawi...</p>	<p>Fertilizer pricing in Kenya before 1991</p> <p>Milk pricing in the U.K. and the Netherlands</p>	<p>Maize in Kenya before December 1993</p> <p>ADMARC maize</p> <p>European CAPolicy</p>

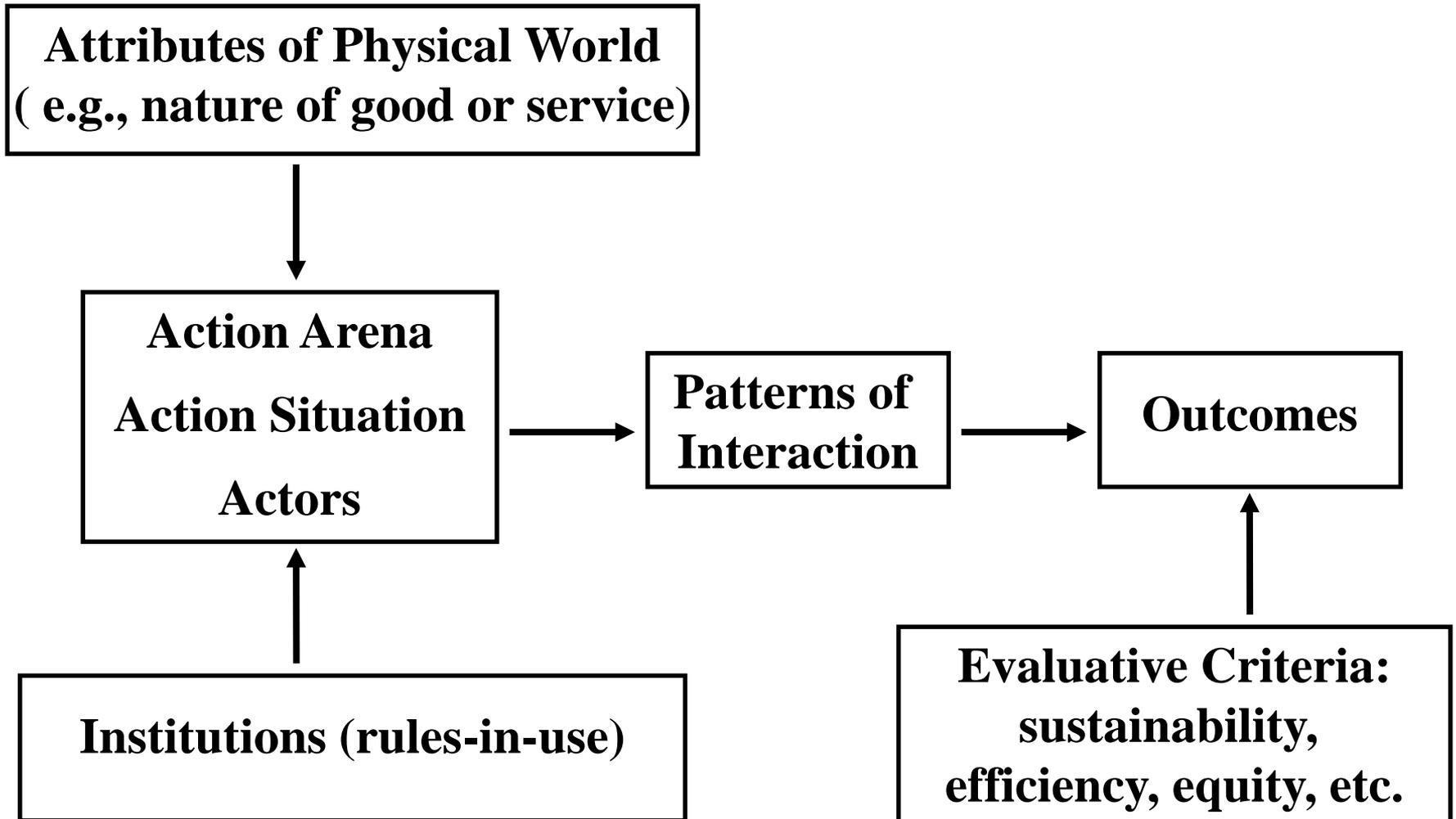
# “Pricing efficiency” in agriculture

- *Market clearing prices without excess rents or penalties*
- With respect to **time** (if a storable commodity):
  - How is the **market for storage** functioning?
  - Inter seasonal prices rise in relation to the cost of storage
  - Structure/silo/store, interest, deterioration, 6, 4 and 2 legged pests
- With respect to **place**:
  - How is the **market for transportation** functioning?
  - Do prices reflect the cost of transportation?
- With respect to **form**:
  - How is the **grading system** and the **market for processing** functioning?
  - Do prices reflect quality, packaging, handling and processing costs?

# Institutional Analysis of an Agricultural Market

- Attempts to explain market outcomes by paying particular attention to institutions
  - Why? How come? What if? Who?
- Institutions are the « rules of the game » which *prohibit, permit or require* certain actions
- Analyze institutions involved in marketing systems
- Understand both the substance and process of institutional change

# *Institutional Analysis and Design (IAD) Framework*



# A Series of Steps

1. Scope (or boundaries)
2. Action arena and actors
3. Attributes of the physical world
4. Institutions (rules in use)
5. Patterns of interaction and outcomes
6. Evaluating performance
7. Recommending changes in the rules

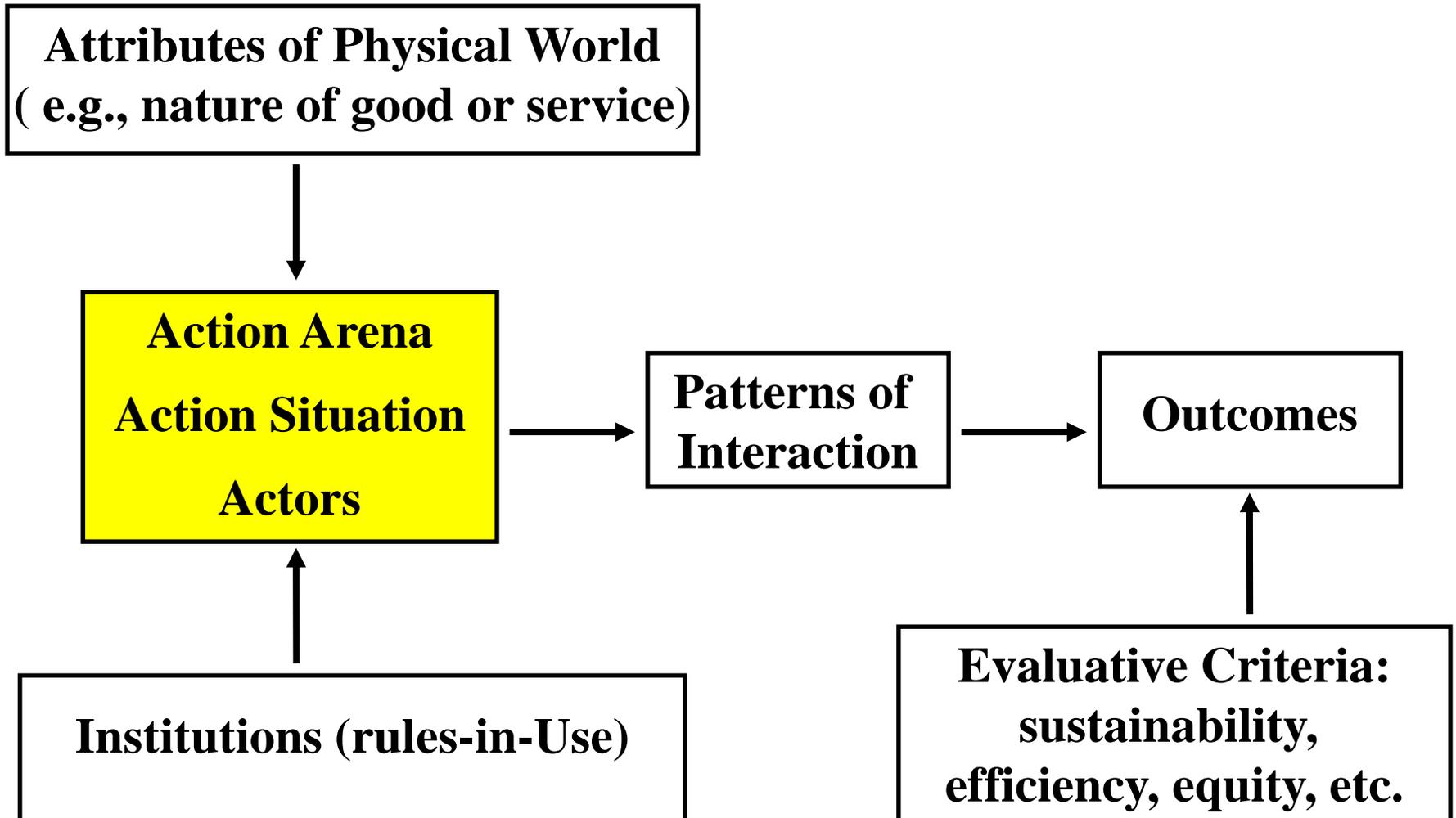
# 1. *Scope (or Boundaries)*

- A pragmatic choice that depends on the particular institutional issue(s) in which one is interested
- Examples:
  - **National economy**: The impact of the degree of independence of the central bank from the Ministry of Finance on macroeconomic policy and performance.
  - **A sector**: The impact of 40 parastatals on prices received by farmers.
  - **A subsector**:
    - Coffee, sugar, fisheries, fertilizer, research, extension
    - Tourism, oil and gas
  - **An organization**:
    - Ministry of Agriculture, National Food Agency, Extension
    - A water-users association

# Why a “subsector”?

- Because the nature of the good or service affects the organizational characteristics and system outcomes
- Focuses on *one good or service*
  - (an input or an output)
- Looks at the system *vertically*
  - (rather than horizontally)
- *From the point of production . . .*
  - (by an input supplier or a farmer)
- *to consumption*
  - (by a farmer or a consumer)

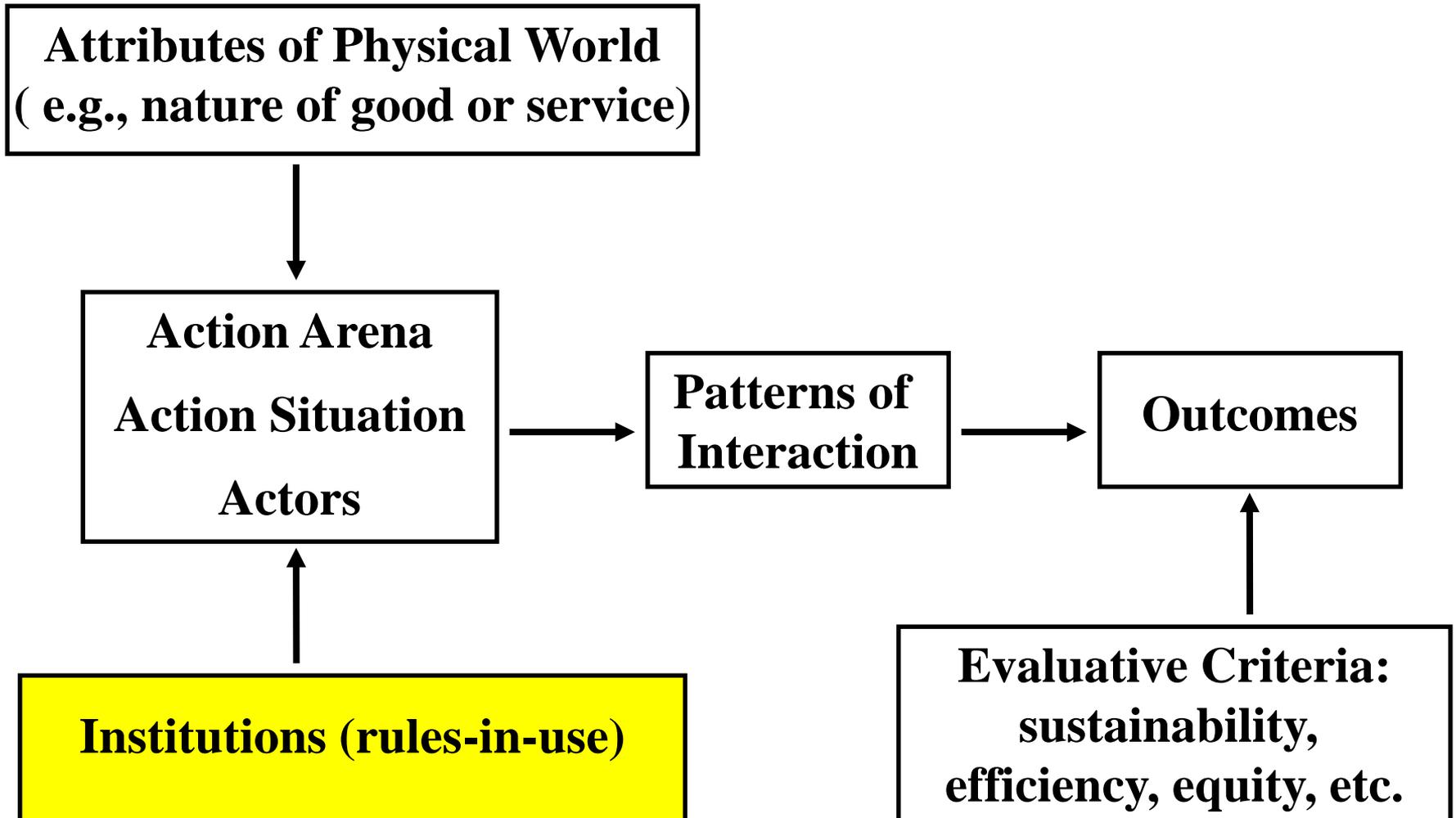
## 2. *Action Arena*



# An action arena is composed of:

- **Actors** With resources, preferences, and selection criteria in
- **Positions** who must decide among diverse
- **Actions** in the light of the
- **Information** that they possess about how actions are
- **Linked** to potential
- **Outcomes** and the
- **Costs and benefits** assigned to the actions + outcomes

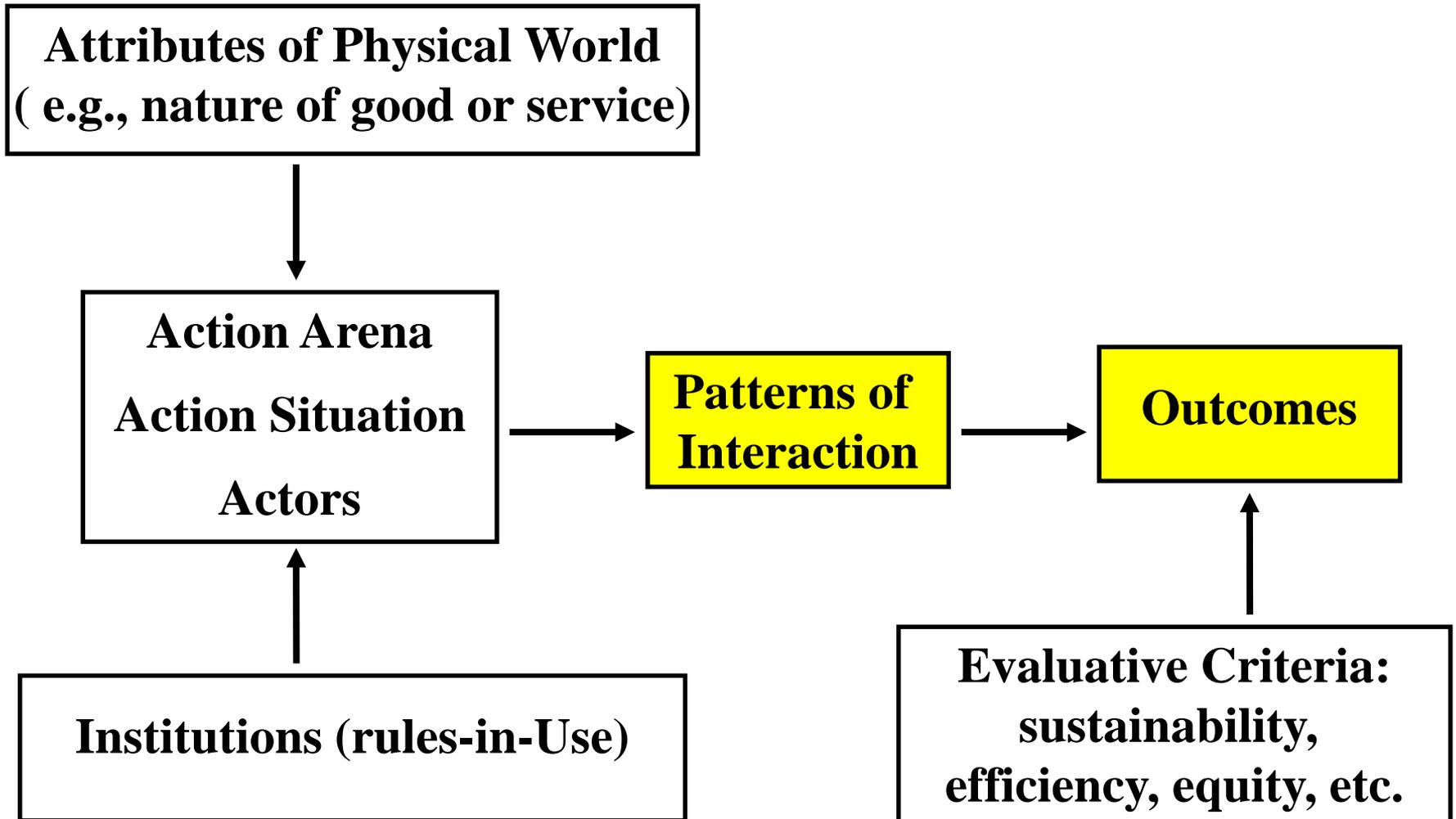
## 4. *Institutions (rules-in-use)*



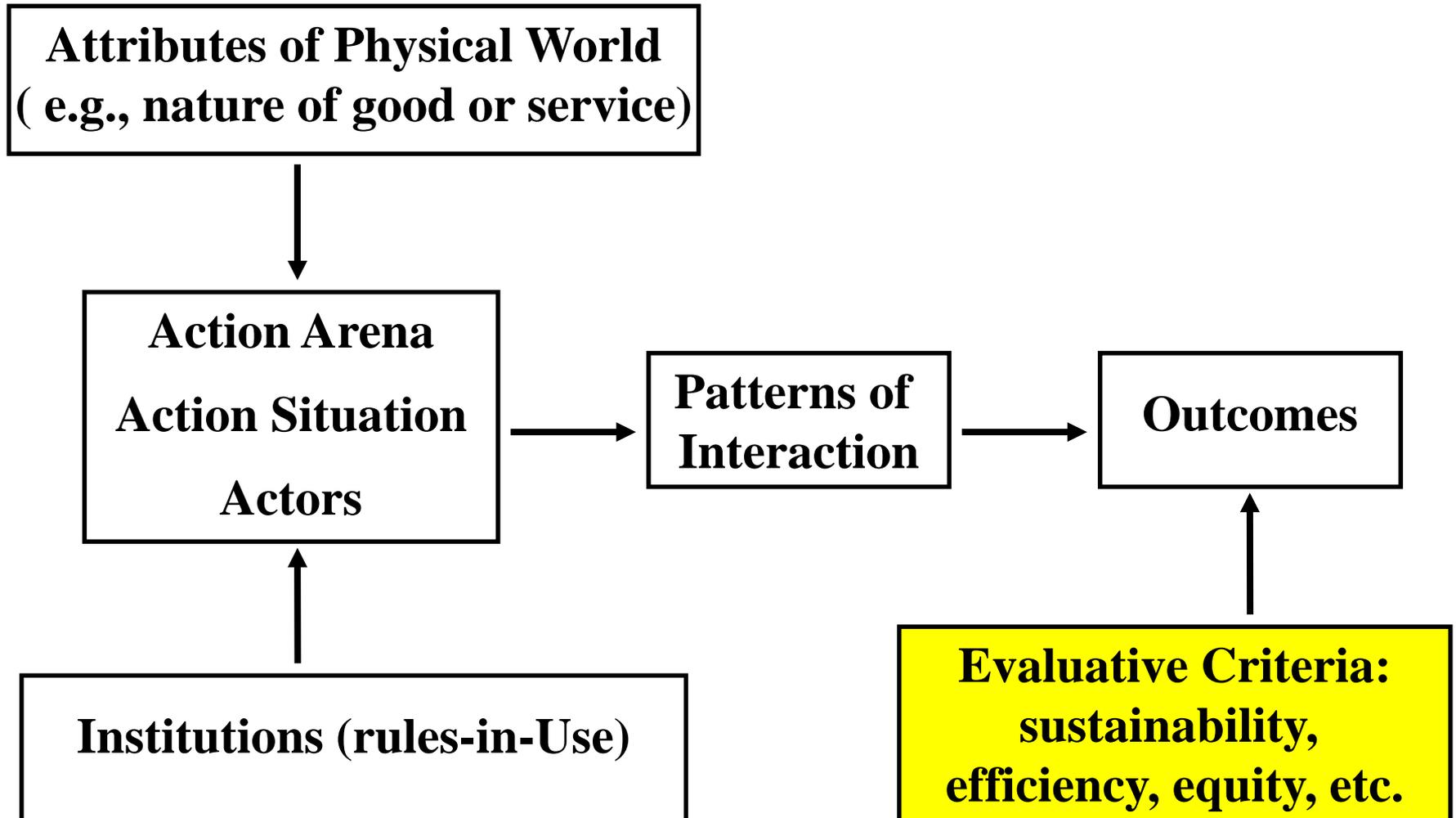
# Seven generic types of rules

- **Position rules**: Specify what positions participants may hold
- **Boundary rules**: Specify how participants may enter or leave these positions
- **Authority rules**: Specify what actions each position is allowed to take
- **Aggregation rules**: Specify how actions are translated into outcomes
- **Scope rules**: Specify the set of outcomes that may be affected
- **Information rules**: Specify what information is available to the actors in the various positions
- **Payoff rules**: Specify how the actors earn benefits and incur costs in relation to the outcomes

# 5. *Patterns of Interaction*



# 6. *Evaluating Performance*



# African Context: 10 years ago

- Legacy of many *years of heavy state intervention in agricultural markets*
  - *Fiscally unsustainable*
    1. Eliminate direct government role in marketing
    2. Institutional development is an integral part of liberalization strategies
    3. Efficient markets/private sector response don't just emerge with reforms
- => *Policy reversals*, large marketing margins, 'brokers', the good old days...

# Common performance criteria suggesting things were not OK

- Many markets, particularly, but not only food markets, not doing well
  - Efficiency
  - Equity
  - Sustainability
  - Accountability

# Accountability

- Becomes an issue where you have:
  - Transactions and information costs
  - Collective action problems
- Includes:
  - Accountability of employees in hierarchical situations
  - Accountability of leadership, and other responsible individuals, in collective action situations

# Institutions for private market development

- Markets require
  - a set of rules, property rights, contract enforcement, promotion of competition
- Defining the
  - proper role for the government
  - proper roles for an efficient private sector that can attract investment
- Private sector institutions
  - for collective action: industry and trade associations
- Support services
  - quality standards and inspection, market information, trading systems, etc.

# Contracting and contract enforcement

- Contracting stipulates the terms under which exchange occurs
  - In order to achieve binding commitments that the two parties can rely on
  - Contract enforcement facilitates exchange by reducing the risk associated with exchange

# Promotion of competition

- Entry to and exit from of markets
  - Free entry and exit promotes competition and efficiency.
  - Restricting entry and exit – for example, through licensing – hinders efficiency: assets will not necessarily end up with people who value them the most and who can make the best use of them at the lowest possible cost.
- Anti-monopoly laws
  - Attempt to prohibit the acquisition and exercise of monopoly power
  - Cover cartels, mergers, acquisitions, and joint ventures.

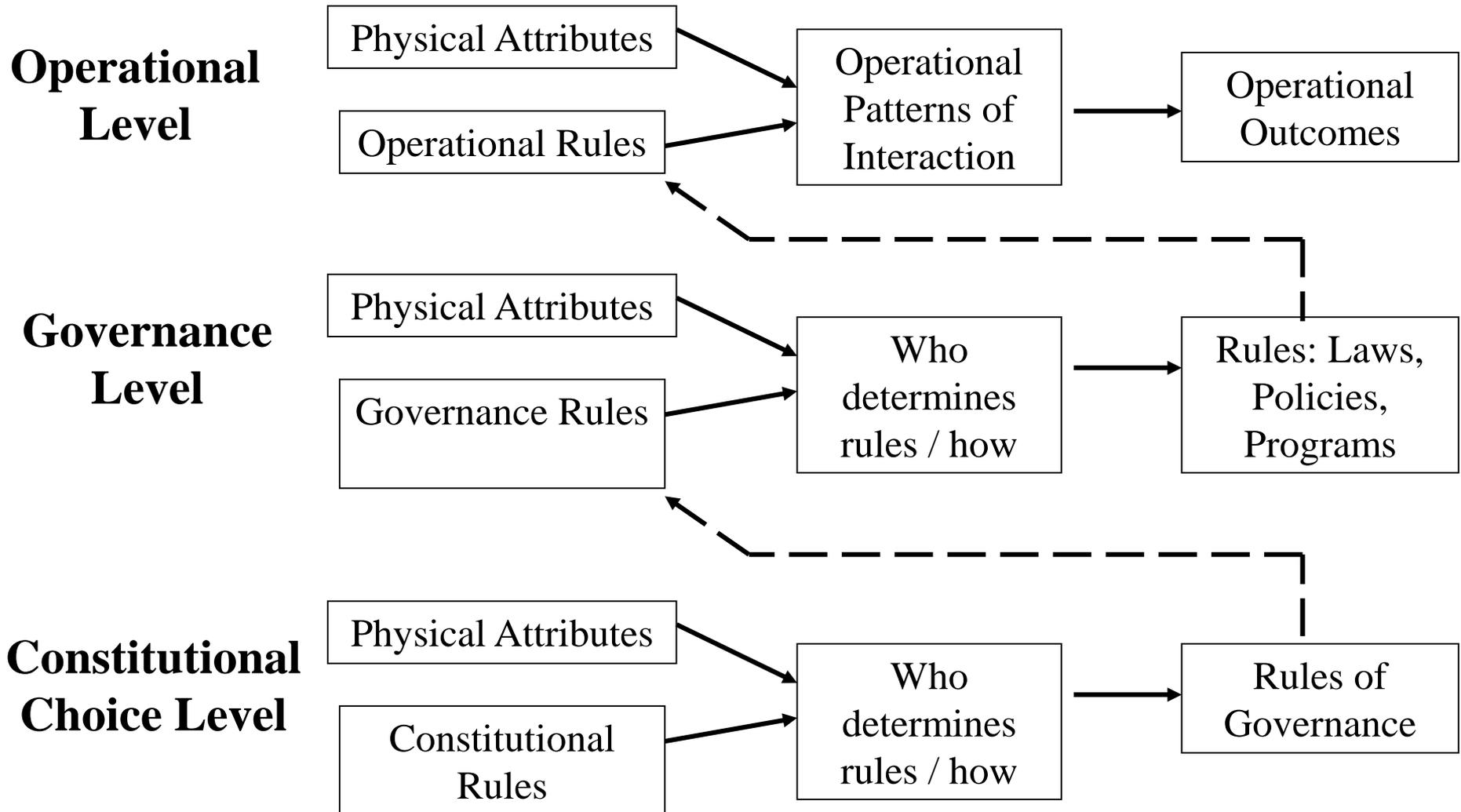
# *7. Recommending Changes in the Rules of the Game*

- **Substance:**
  - What institutional changes would you recommend in order to improve the performance of the system?
- **Process:**
  - If you were responsible for bringing about these changes, how would you proceed to do so?

# Going deeper into the system

- Operational level
    - Day to day rules and actions
  - Governance level
    - Individuals making decisions about operational level
  - Constitutional level
    - Individuals making decisions about which individuals and which powers should be at the governance level
- Comprehensive reforms usually end up changing the rules at all three levels**

# *Linking levels of analysis*



# Summary So Far

- Institutions are the “rules of the game” which govern the patterns of interaction among the different actors in a given action arena
- In order to improve the performance (or outcomes) of the system, it is necessary either:
  - To change human nature;
  - To change the nature of the good or service in question (e.g. by means of research and technology); or
  - To change the “rules of the game”.
- Institutional analysis focuses on changing the rules of the game

# Policy Analyst's Role

- What institutional changes (changes in the rules) would you recommend in order to improve the system?
- If you were a subsector manager in the Ministry of Agriculture (the person responsible for management of this particular policy issue), how would you proceed to bring about these institutional changes?

# Pyrethrum in Kenya

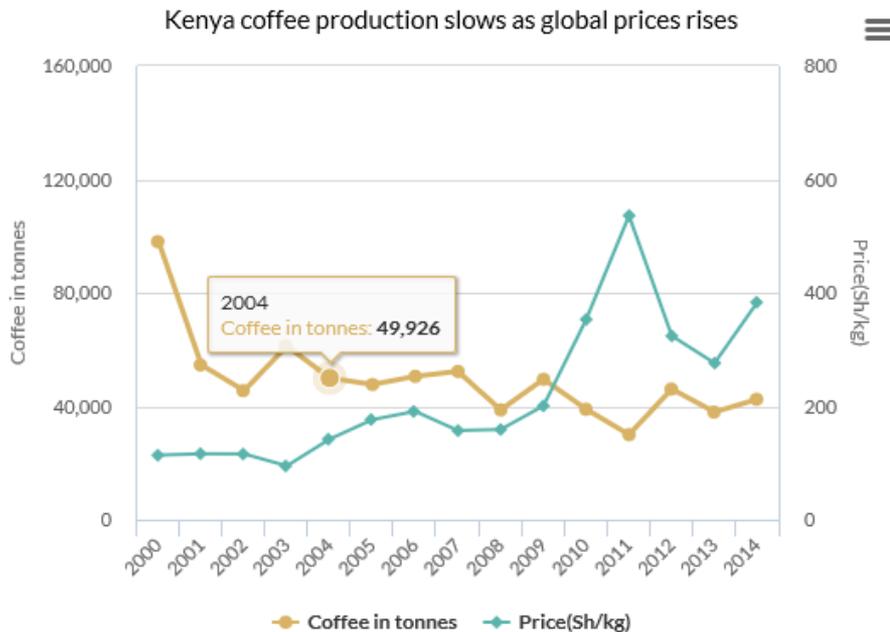
- **Pyrethrum Act CAP 340, 1961, 1991**
  - Purposes
    - Establishes PBK to license, regulate, take delivery, process, market and sell pyrethrum. Divide proceeds. Impose levy, cess, issue stock to licensed growers
  - Issues
    - Separate regulatory/development roles from the Commercial private company
  - Recommendation
    - Transfer and Ag Regulatory Board.
    - Repeal CAP 340
  - Savings
    - Regulatory function to Ag. Regulat. Board
    - The commercial company

# Coffee in Kenya

- **Coffee Act 2001**

- Established Coffee Board of Kenya to regulate and promote the industry. Policies, licensing and registration. Database, advisory services and levies.
- Limits on growers, freedoms to marketing agents, elected representative directors, Coffee Development Fund
- Minister powers to make rules on elections, registration, licensing, blending, milling, services to growers + anything.
- Remove regulatory functions from representation, promotion and development
- Transfer to Ag development Board, Ag regulatory Board, Repeal CAP 333
- Regulation to ARA, Promotion to ADB. Form/strengthen industry associations

# Coffee in Kenya



## Production

- **1965:** 40,000t
- **1989:** 130,000t peak
- ICO, coop debt, rigged auction
- No value addition
- **2010-16:** 40,000t...
- 50% estate up from 20%
- SH Farmers have moved on

## Market side

- 4 big multinationals
- High quality for blending
- Rwanda, Congo...wet mills, extension, certification

# Sugar in Kenya

- Sugar Act 2001
  - Established Kenya Sugar Board to regulate, promote and develop industry, license mills, monitor trade, arbitrate, advise Minister.
  - Elected representative directors
  - Sugar Development Levy, Sugar Arbitration Tribunal, price determination by sucrose content, factory shareholding
- 2016
  - Sugar Desk, no board members
  - Issue directives – cane price, penalties for late harvest/payment
  - 5 dying government factories, 1 group of growing private investor owned 5 plants
  - COMESA protection – 16 years...forever
  - High domestic prices 2X world prices

# Maize in Kenya

- **Movement Controls**
  - 1 bag, 10 bags, 44 bags, unlimited
  - NCPB 9,000 employees, now 3,000
- **Raised domestic prices**
  - Farmgate, consumer, cost of transport, bribes
- **Imports from Uganda, Tanzania, Malawi**
  - Museveni strategic forward vision
  - Protests in Eldoret ‘ban imports!’
- **Consumers shifting**
  - Wheat products, rice, potato, banana,
  - Convenience, tastes, young people