

Management in a Time of Systemic Change

*presentation given to
two oil companies in
Calgary, Alberta
30 September 2008*

from

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What Examples of Systemic Change?

What Principles Might Apply?

What Experiments Can Be Tried?

What Examples of Systemic Change?

Examples of Systemic Change

Principles

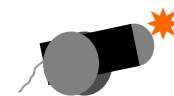
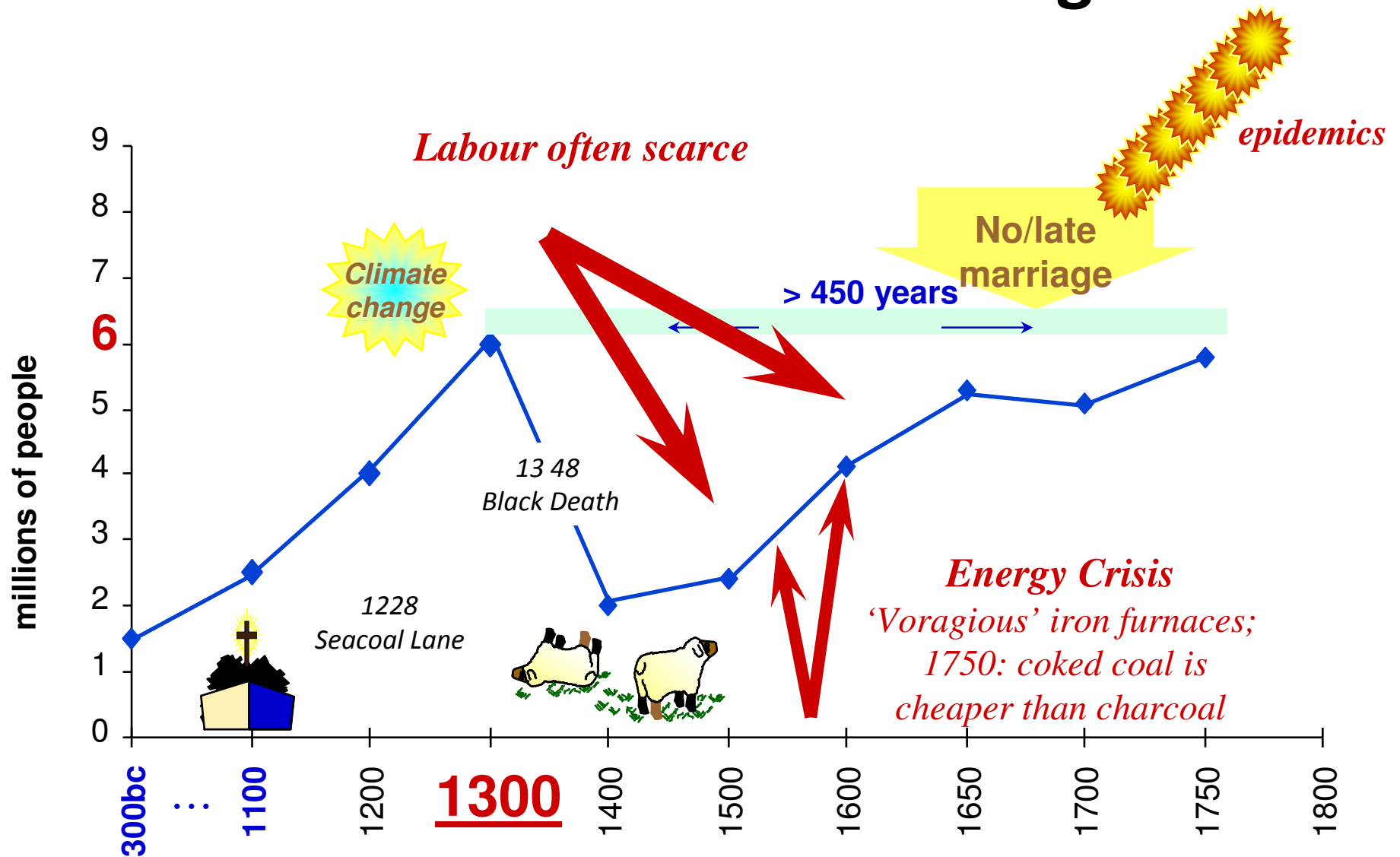
Experiments

What Examples of Systemic Change?

Examples offered by audience

- **Internet economy & connections**
- **Sept08 financial crisis in USA**
- **Equal rights movements**
- **Blue box programme for recycling**
- **Company president decides to go green**
- **Advent of capitalism and value shift**
- **& its reverse**
- **Climate change**
- **China: pop explosion + affluence + Communist capitalism**
- **Global urbanisation**

1100-1750: Pre-Industrial England



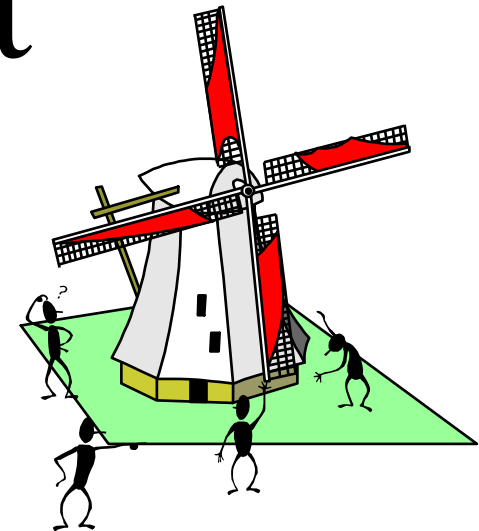
Drivers of Invention Early England

E

Engagement
& *aEsthetics*

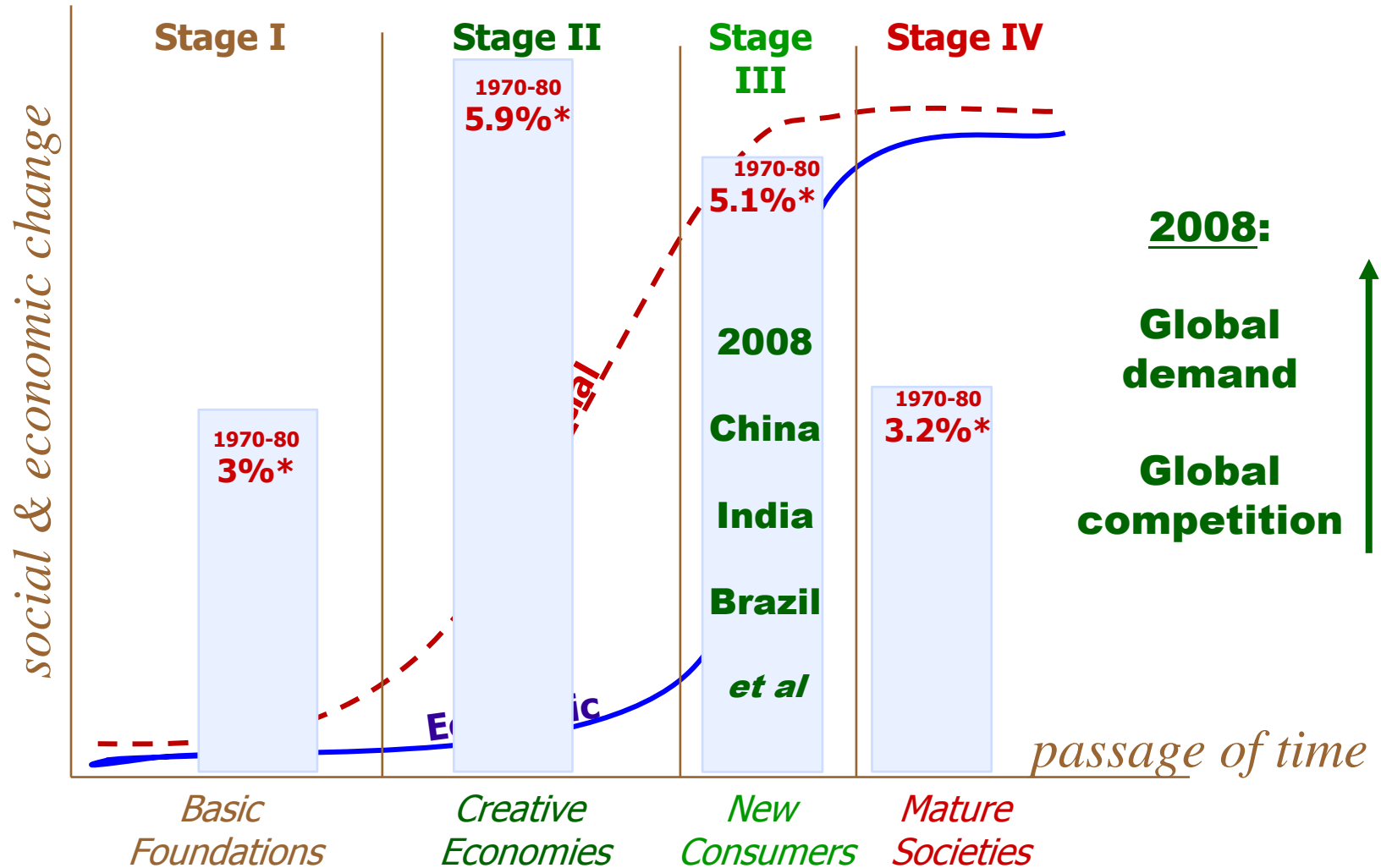
Experiment
& *education*

Extremity
& *necessity*



Newton's Windmill

1984-2008: International Development



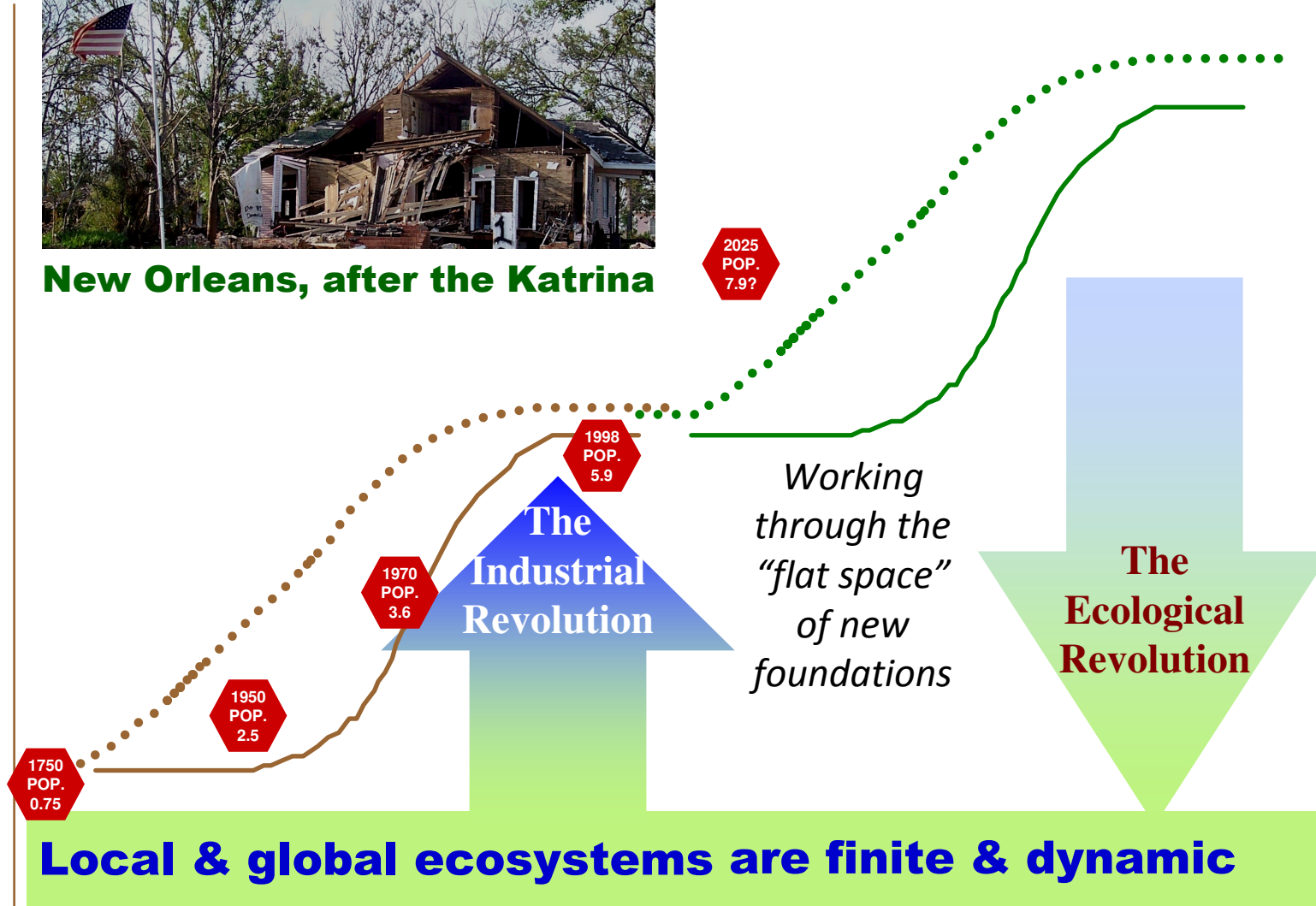
*1970-80 growth rates of countries according to 1970 dev't level

Social Foundations of Economic Development", November 1984 by B.J. Heinzen, available at www.barbaraheinzen.com

21st Century Transition: Bigger Than We Think



New Orleans, after the Katrina



global population, in billions

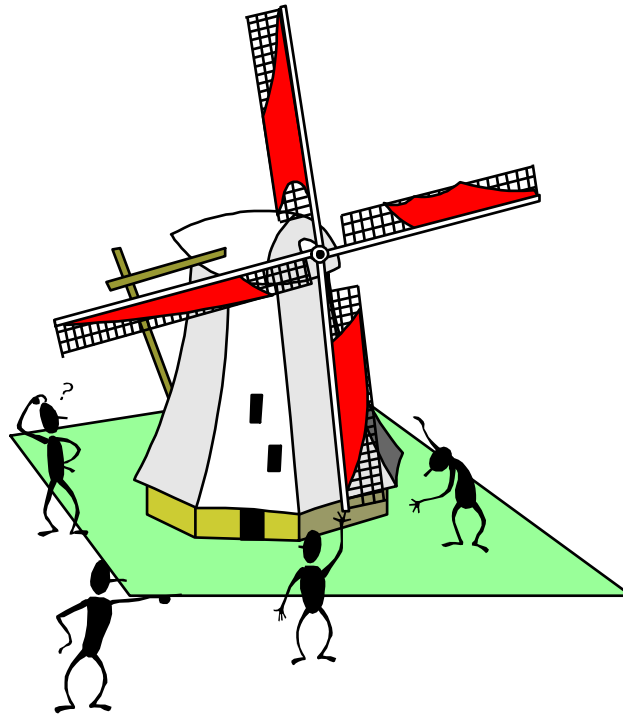
What Management Principles Might Apply?

Examples of Systemic Change

Principles

Experiments

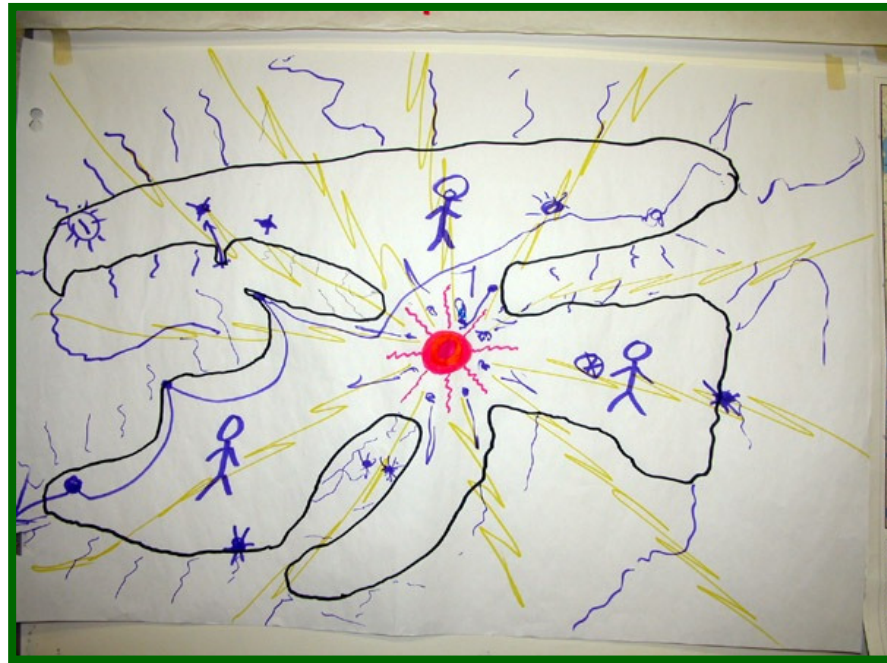
The Living Company Learns



Who Is Us?

Expect Unexpected Competition

Shell, Exxon, BP, Chevron, Lukoil, Aramco or ...



Chicago Climate Exchange
Solar Century, UK

Great Bear Lake Watershed Management Plan*, NW Territories
Transition Towns, UK

Share & Integrate Responsibility



Accountability

Rules + rules of thumb

Embrace error: what have we learned?

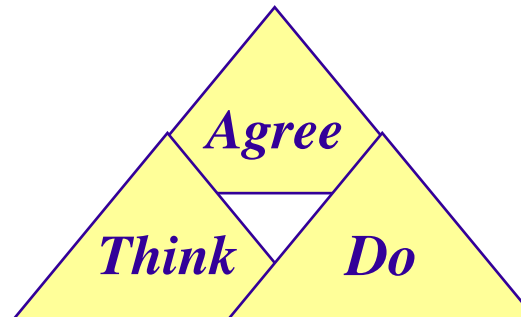
Personnel

What incentives? For what?

Promotion, prestige & continuity

R&D

Skunk works or the 3-M Model?



Shareholders

Dividends, not capital growth

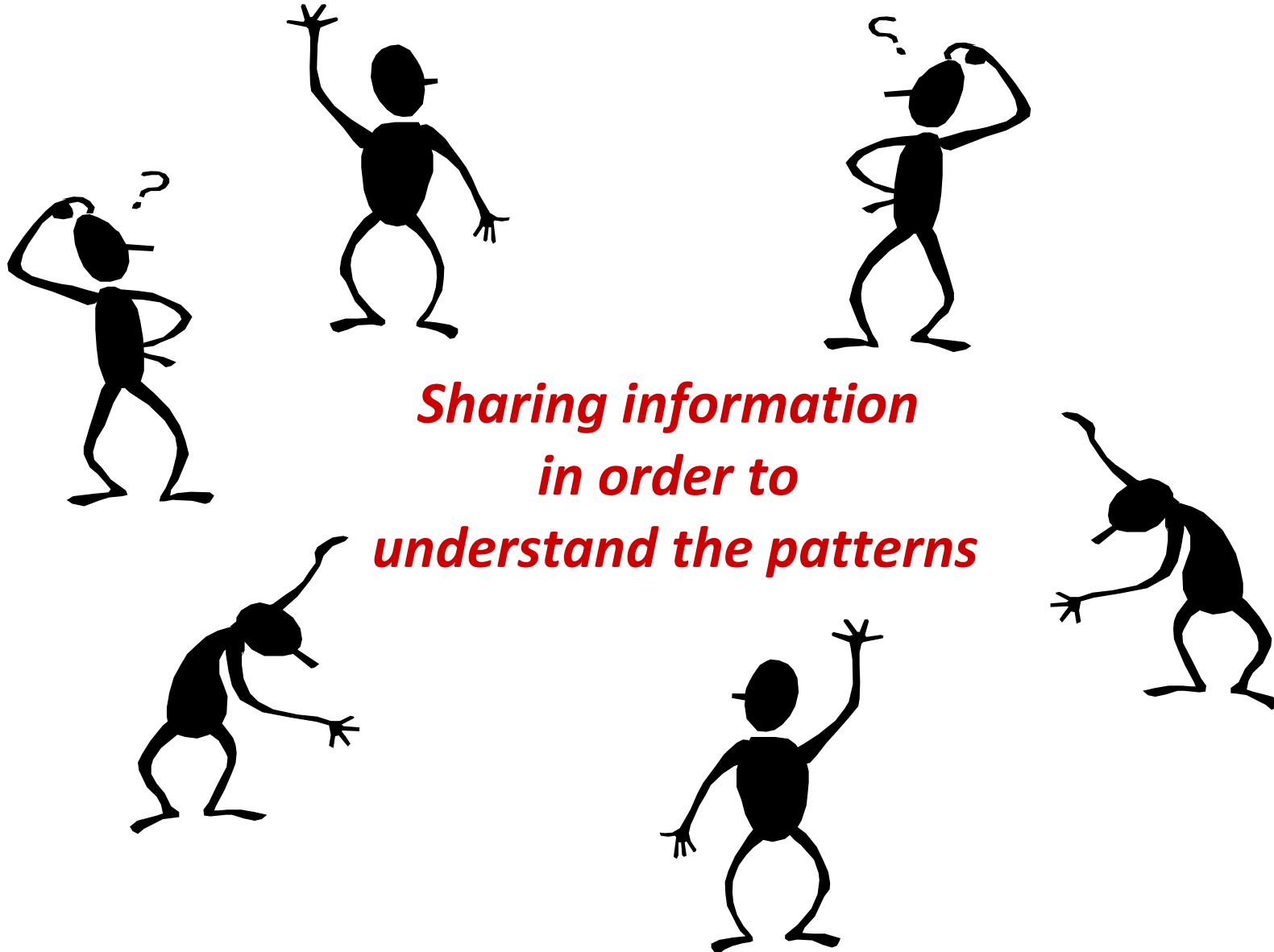
Engagement, not PR

Government

Shared learning, not lobbying

Shared information

DAGU – Ethiopian Herders



Accept Uncertainty – Change Is Normal



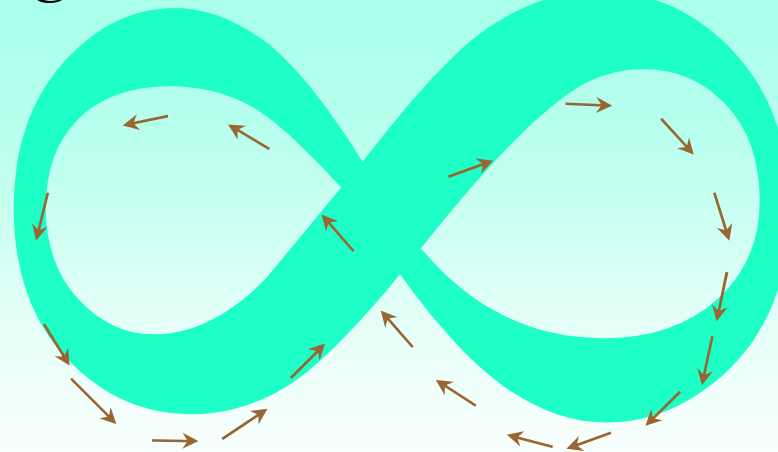
Accessible carbon
Nutrients & energy

Reorganisation

Conservation



Consolidation
Climax
Connections



Exploitation

Release

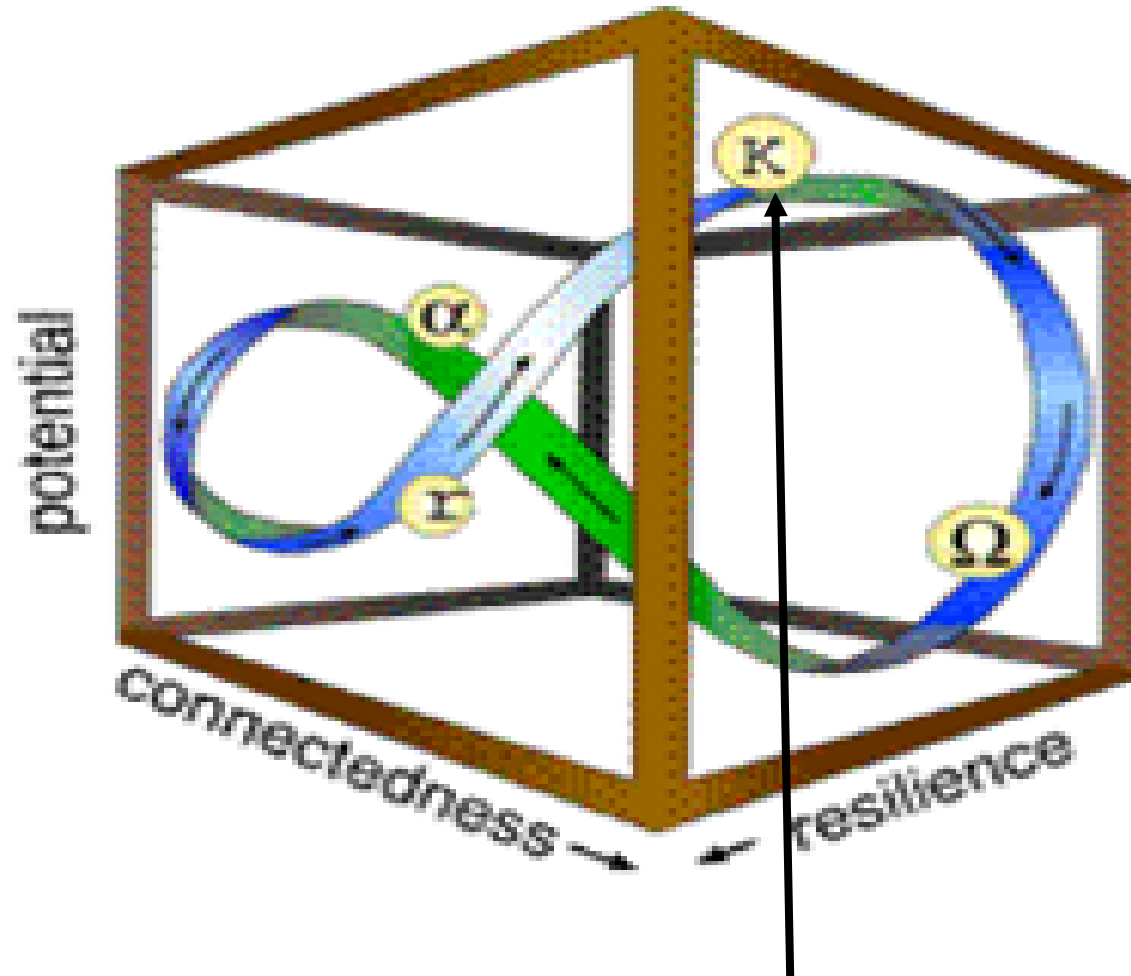


Pioneers
Opportunists



Fire
Storm
Pest

Avoid the Rigidity Trap



The more we prop things up, the more dangerous they become ...

Review Responses to Competition

E

Expertise

Efficiency

Economy



Getting to Maybe

C

Creating

new businesses, rules, goals

Crises

be prepared

Coping

survive today



Redundancy & multiple use

$$E^3 + E^3 = C^3$$

Commercial Response to Competition

E

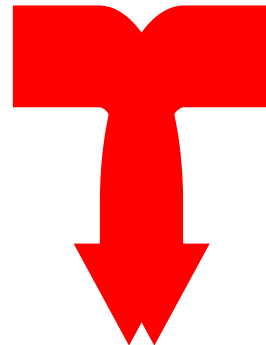
Expertise
Specialise, focus, control

Economy
New markets at 'Bottom of Pyramid'

Efficiency
Increase productivity of labour



© Barbara Heinzen 2008 p. 7



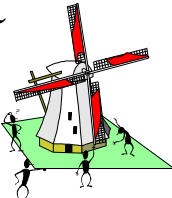
Drivers of Invention Early England

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& education

Extremity
& necessity



Newton's Windmill

© Barbara Heinzen 2008 p. 12


Getting to Maybe

C

Creating
new businesses, rules, goals

Crises
be prepared

Coping
survive today



Redundancy & multiple use

Frances Westley, et al, Getting to Maybe,

© Barbara Heinzen 2008 p. 17

Making Multiple Transitions

EXPERTISE → **ENGAGEMENT** → **CREATING**

EFFICIENCY → **EXPERIMENT** → **COPING**

ECONOMY → **EXTREMITY** → **CRISES = SIFTING**

Developing New Habits of Mind

- **Letting Go**
 - **Questions, Not Answers**
 - **Engagement, Not Control**
 - **'Maybe' Is the Best We Have**

Lesson from Fisheries Management

*“Managing fisheries is not about managing fish.
It is about managing people who fish.”
Kathy Castro, University of Rhode Island*

ENDING → **TRANSITION** → **BEGINNING**

The need to mourn.

Open access → **TRANSITION** → **Stewardship**

What Experiments Can Be Tried?

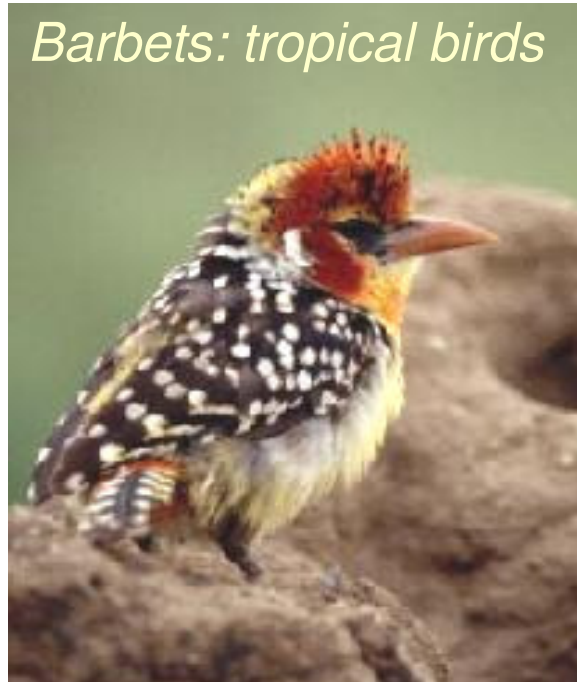
Examples of Systemic Change

Principles

Experiments

Barbets' Duet

A Business Idea, Not a Charity



4 Barbet Learning Sites, Feb 08: “Just Begin”



Oby Obyerodhyambo
land in Seme, W. Kenya



**Mwajuma Masaigana
& Msi Choke Coop've**
Coastal Tanzania



1 paragraph
+
1 photo
+
A date to meet



Sammy Muvelah
*land in Lukenya,
outside Nairobi*



Magode Ikuya
Eastern Uganda

Invention Convention – May 2009

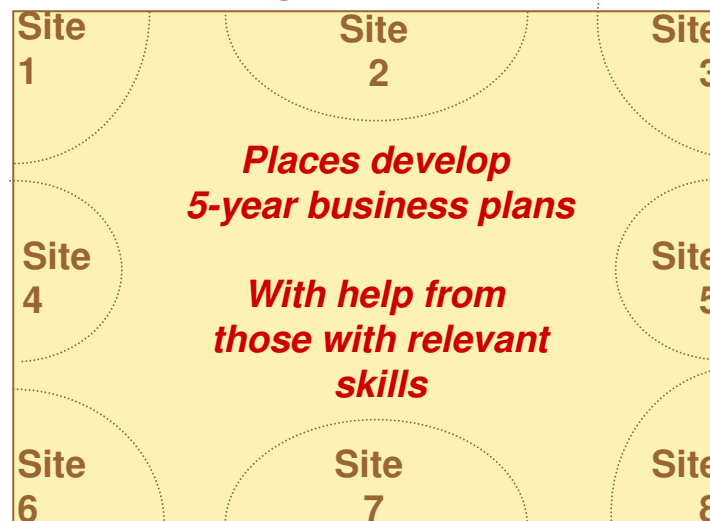
1. Places & Potentials



2. Essential Skills



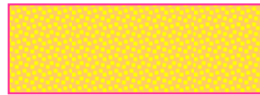
3. Linking Sites & Skills



Barbets' Game

The Landscape

Each landscape colour is a different soil type or habitat.



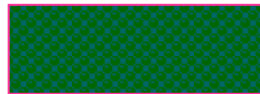
Desert, sand



Mountains, rocky



Rivers, lakes, riparian



New fertile soils



Coastal Waters



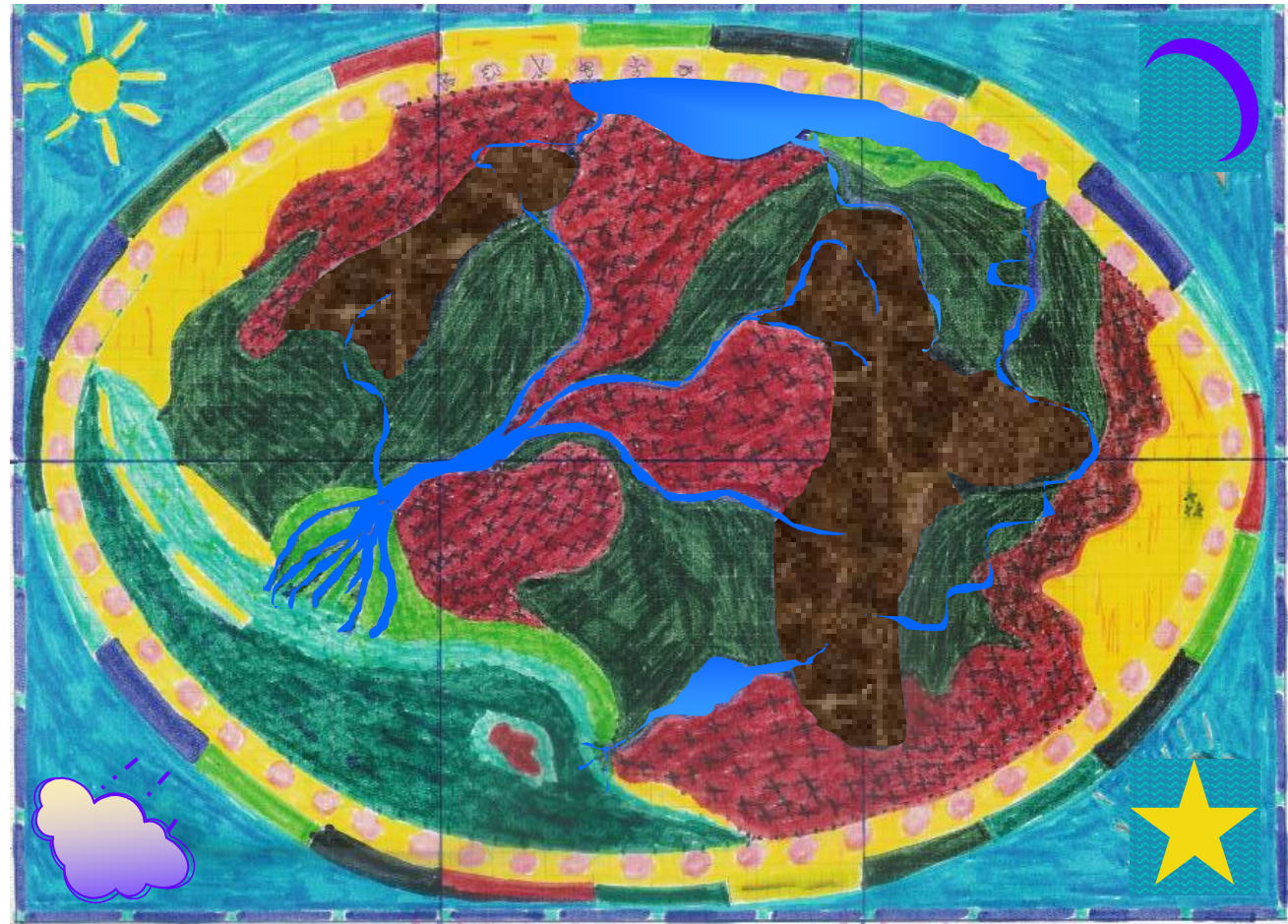
Wetlands, mangrove



Deep ocean



Old soils



Currency



Events Cards



Players' tokens

Additional slides not used

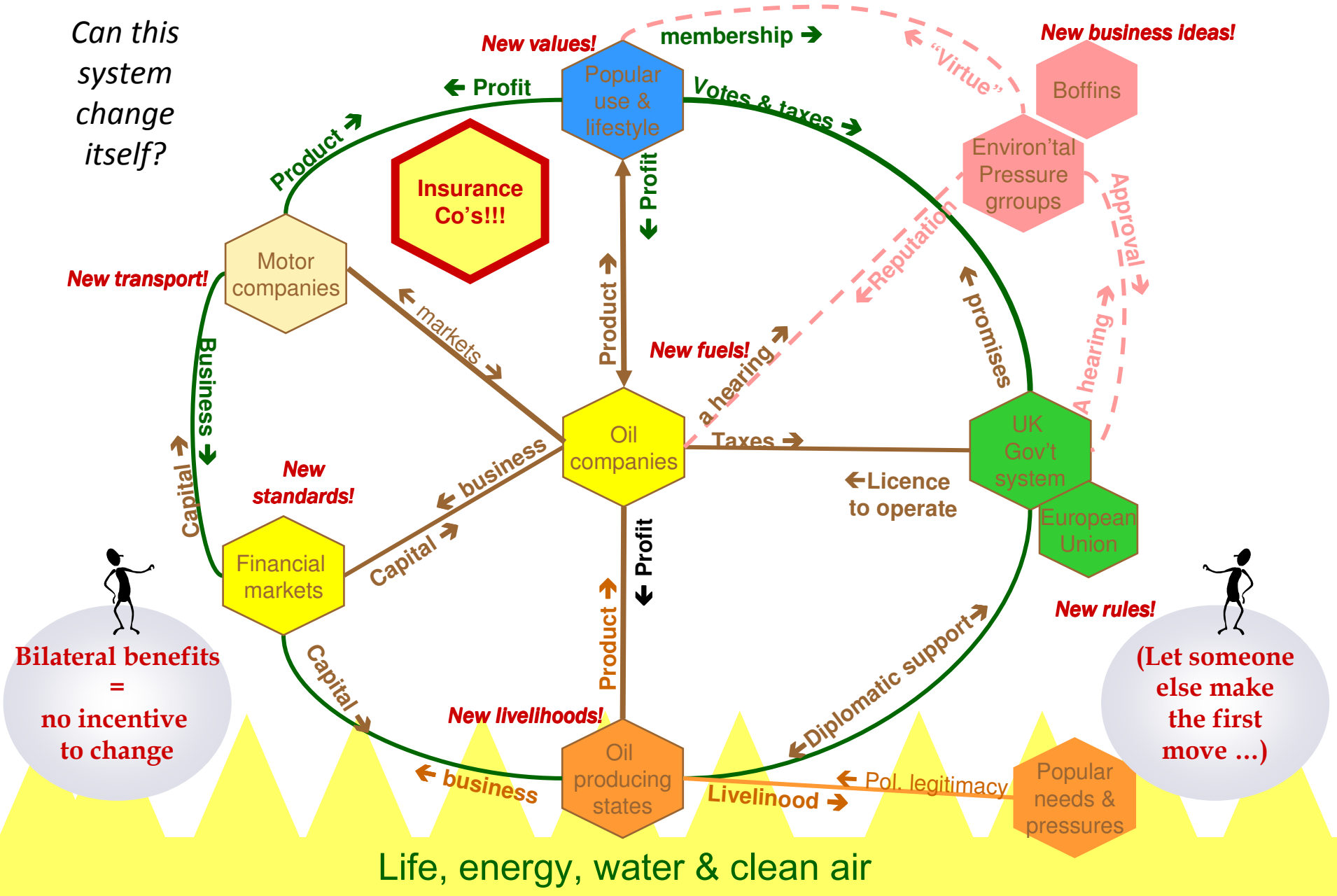
Examples of Systemic Change

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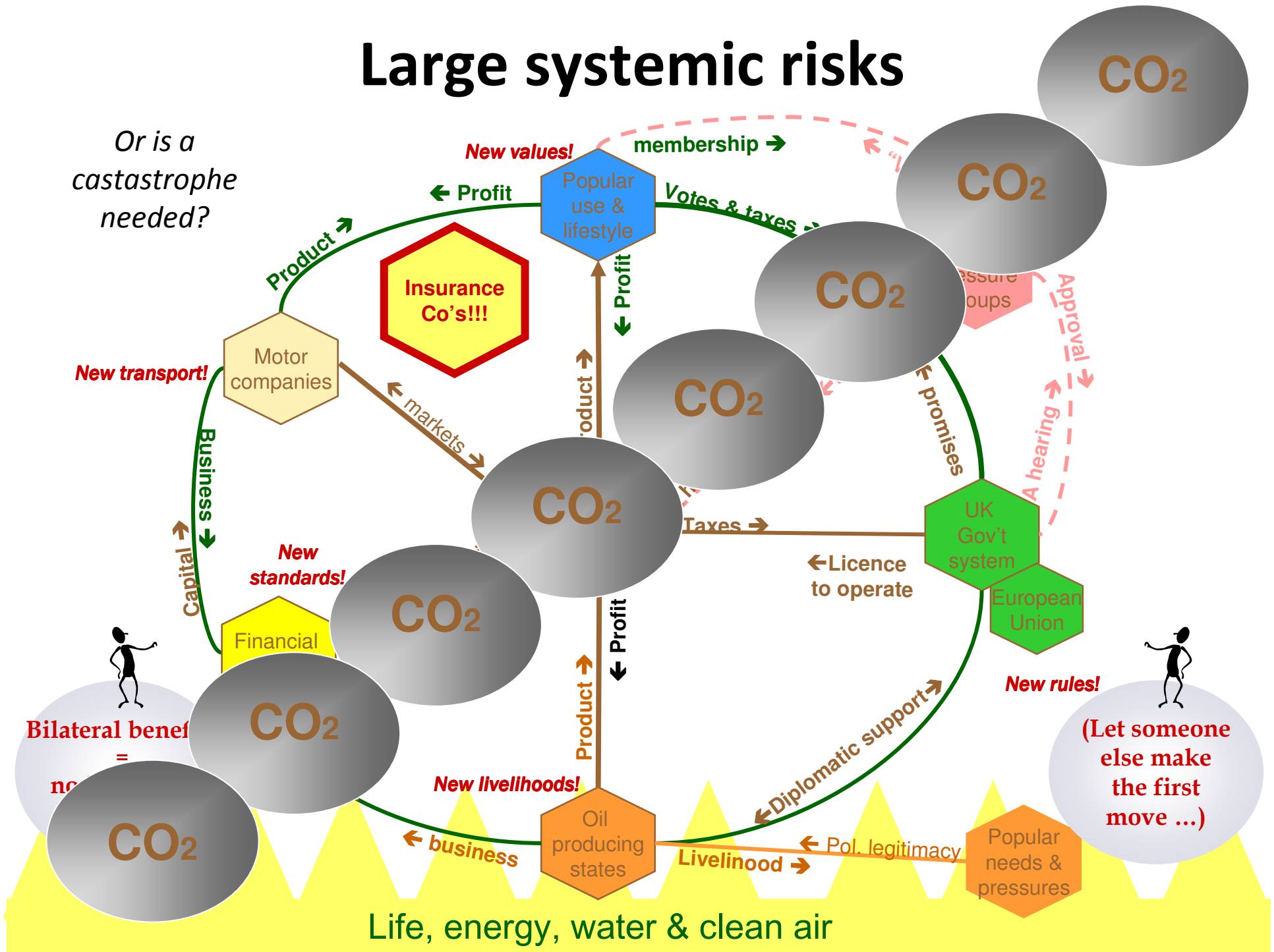
Bilateral benefits for every player

Can this system change itself?



Large systemic risks

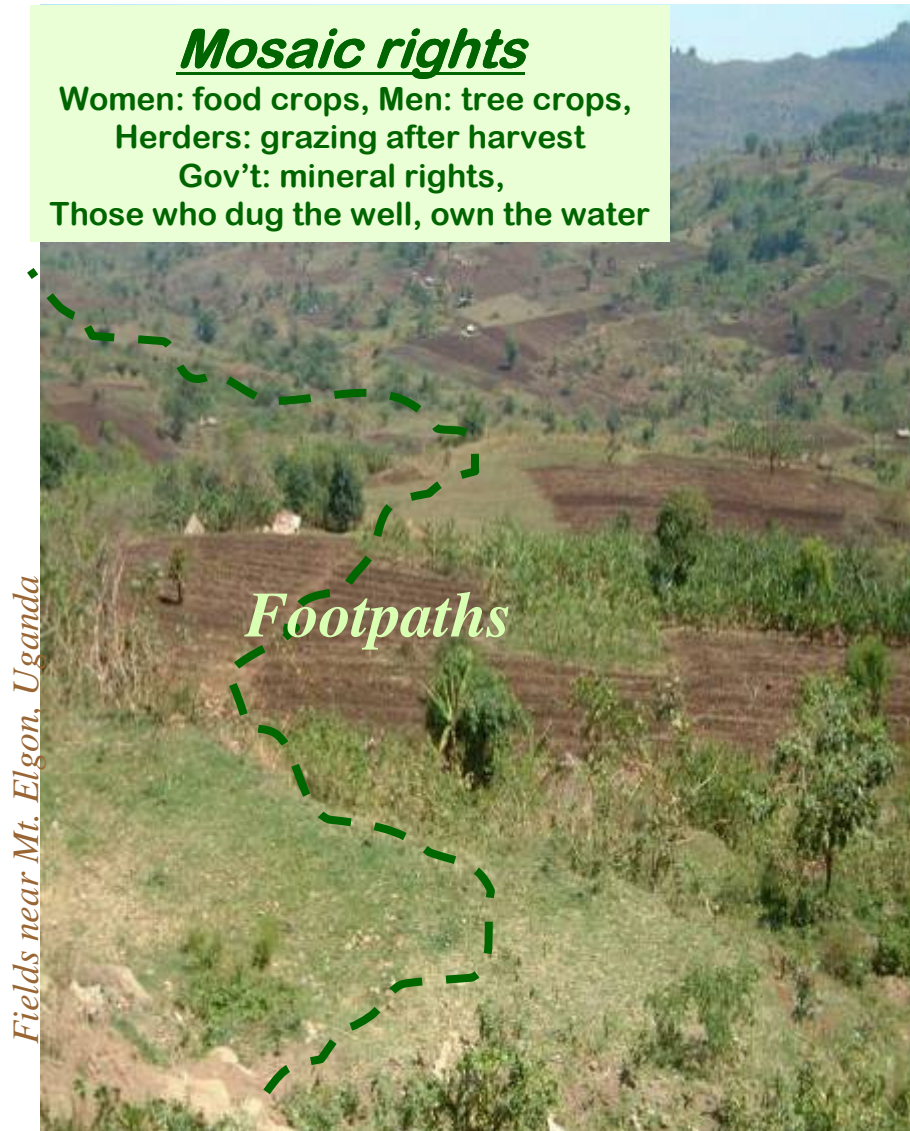
Or is a catastrophe needed?



2 Cultures: Mosaic Rights & Column Rights

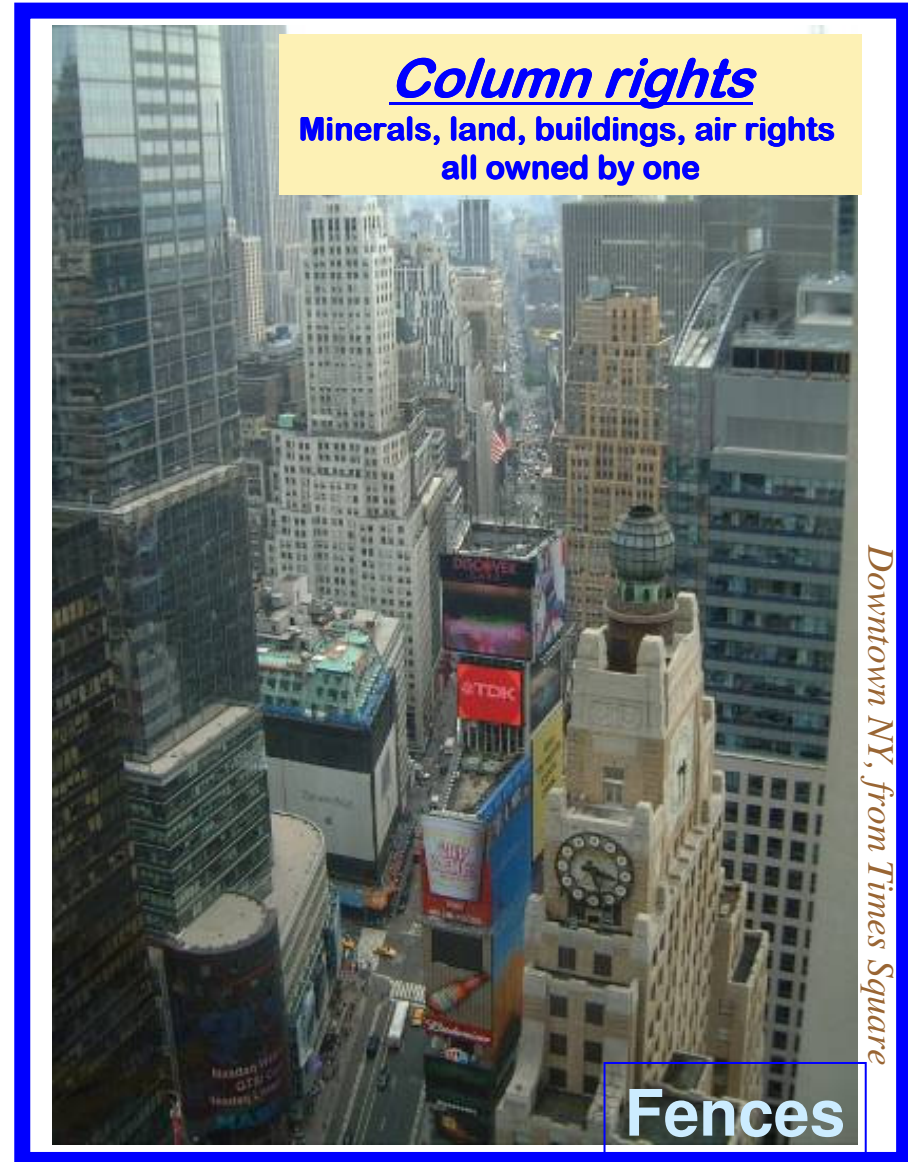
Mosaic rights

Women: food crops, Men: tree crops,
Herders: grazing after harvest
Gov't: mineral rights,
Those who dug the well, own the water



Column rights

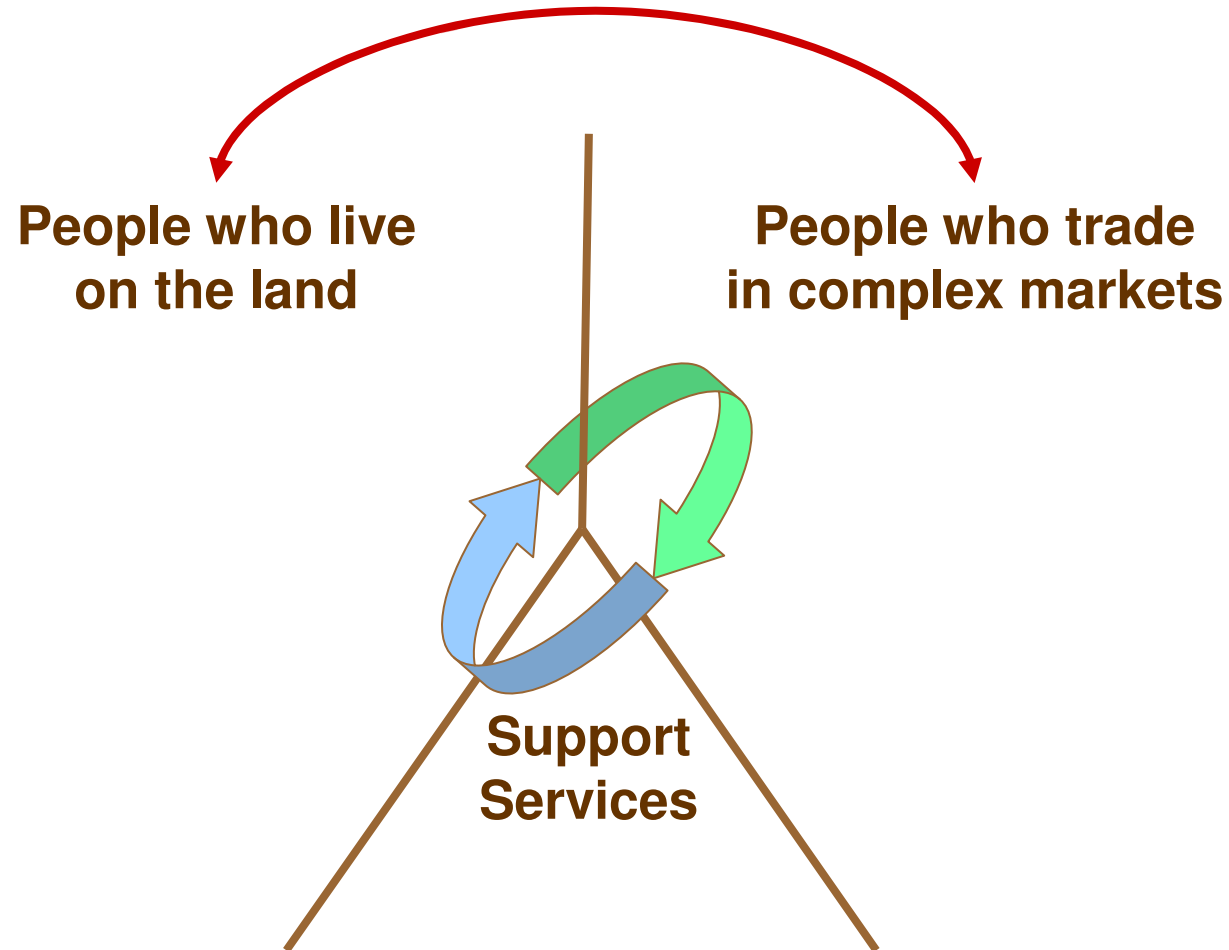
Minerals, land, buildings, air rights
all owned by one



**Mosaic rights → high social equity, high biodiversity;
Column rights → successful markets**

Principal Relationship: People & Markets

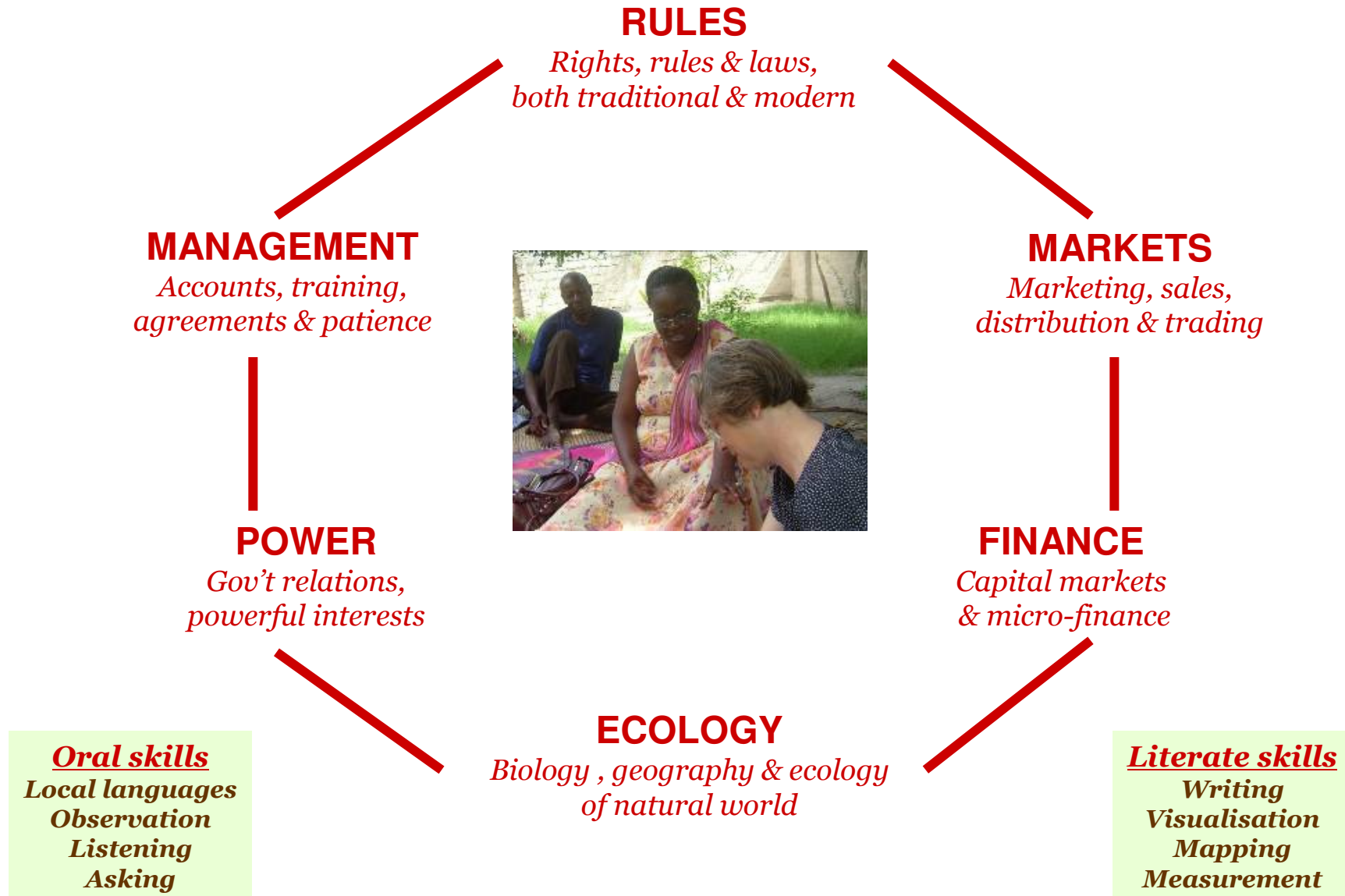
From October 2006 Conceptual Framework



Potential Markets

<p><u>Four Types of Market</u></p>	<p><u>Products of “Thing” Culture:</u></p>	<p><u>Products of “Earth” Culture</u></p>
<p>Utility: creating things we need e.g. clean water, air, food, medicine, cosmetics, building materials</p>	<p>Moveable products <i>Tangible, portable, Species-specific</i></p> <ul style="list-style-type: none"> • Timber & grasses <i>(wild & domestic)</i> • Medicinal plants • Domestic biodiversity <i>(e.g. seed & semen banks)</i> • Edible wild: <i>(e.g. roots, bush meat)</i> 	<p>Environmental products <i>Intangible, immovable, Site-specific habitats</i></p> <ul style="list-style-type: none"> • Ground water recharge • Water purification • Carbon sinks <i>(e.g. swamps, grasslands, uncut forests)</i> • Waste management <i>Decomposition services</i>
<p>Insurance: reducing risks of climate change, flooding, loss of ground cover due to climate extremities; loss of food species to disease</p>	<ul style="list-style-type: none"> • Woodlots & grasses • Medicinal plants • Domestic biodiversity <i>(e.g. seed & semen banks)</i> 	<ul style="list-style-type: none"> • Flood control • Micro-climate change • Wild biodiversity • Carbon sinks
<p>Aesthetics Fashion, bragging rights, tourism, meditation</p>	<ul style="list-style-type: none"> • Edible wild: <i>(e.g. teas, roots, bush meat)</i> • Wild biodiversity 	<ul style="list-style-type: none"> • Species habitats
<p>Intellectual property Genetic reserves</p>	<ul style="list-style-type: none"> • Medicinal plants • Domestic biodiversity <i>(e.g. seed & semen banks)</i> • Wild biodiversity 	<ul style="list-style-type: none"> • Species habitats to support genetic reserves

Necessary Knowledge & Experience



Fundamental Issues in Barbets Experiment

Can price signals reward abundance, not scarcity?

What exactly can be owned & traded?

This may be necessary, but is it possible?

***“If it is necessary,
it must be possible.”***

Julius Kipng’etich
Director, Kenya Wildlife Service
17 October 2007