Sustainability and Corporate Governance

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AN OVERVIEW

• Recent popularity of both sustainability and governance, also diverse usage
• Sustainability: a criterion to guide our policies and actions to preserve human species
• Governance: a socio-economic system to formulate and implement such policies
• Threats in our moral code, need close scrutiny
• Threats in misguided and invalid theories
• Revise governance to sustain human society before time runs out
WHAT IS OUR CIVILIZATION?

• TWO KEY ELEMENTS OF MORAL CODE
1. CONSUMPTION IN MORAL CODE
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2. REPRODUCTION AND PRESERVATION OF LIFE
PRESEVATION OF LIFE IN MORAL CODE
REPRODUCTION IN MORAL CODE
WE LOVE BABIES: LIFE IN OUR MORAL CODE
REVOLUTION IN TECHNOLOGY: BLAME THIS MAN
MORAL CODE MEETS TECHNOLOGY

World Population

Billions of People

0 1 2 3 4 5 6 7

0 200 400 600 800 1000 1200 1400 1600 1800 2000
HOW MANY OF US?


World Population reached:
1 billion in 1804
2 billion in 1927 (123 years later)
3 billion in 1960 (33 years later)
4 billion in 1974 (14 years later)
5 billion in 1987 (13 years later)
6 billion in 1999 (12 years later)

Unless we reduce our growth rate soon, World Population will reach:
7 billion in 2013 (14 years later)
8 billion in 2028 (15 years later)
9 billion in 2054 (26 years later)
HOW MANY OF US?
Global Water Withdrawal and Consumption

- **Withdrawal**
  - Assessment
  - Forecast
- **Consumption**
  - Assessment
  - Forecast

**Top 20 water consumers per capita**
- 1 000 to 1 800 m³
- 1 800 to 3 000 m³
- 5 900 to 8 100 m³

**Water use at the end of the 1990s**
- Withdrawal
- Consumption

Map showing water usage across continents:
- North America
- Europe
- Africa
- Asia
- South America
- Australia and Oceania
Water

Projected Water Scarcity in 2025

Note: Indicates countries that will import more than 10% of their cereal consumption in 2025.
Water Supply
CONSUMPTION

All Energy Sources (94.2 Quadrillion Btu)

- Petroleum 39%
- Natural Gas 23%
- Coal 23%
- Nuclear Electric 8%
- Renewable Energy 8%

Renewable Energy Sources (7.0 Quadrillion Btu)

- Biomass 43%
- Hydroelectric 50%
- Wind < 0.5%
- Solar 1%
- Geothermal 5%

Totals may not equal sum of components due to independent rounding.
DOES OUR TECHNOLOGY MATCH OUR MORAL CODE OF LIFE AND CONSUMPTION?
ON THE ORIGIN OF SPECIES

BY MEANS OF NATURAL SELECTION,
OR THE
PRESERVATION OF FAVOURED RACES IN THE STRUGGLE
FOR LIFE.

By CHARLES DARWIN, M.A.,
FELLOW OF THE ROYAL, GEOLOGICAL, LINNEAN, ETC., SOCIETIES;
AUTHOR OF "JOURNAL OF RESEARCHES DURING H. M. S. BEAGLE'S VOYAGE
ROUND THE WORLD."

LONDON:
JOHN MURRAY, ALBEMARLE STREET.
1859.
Species Extinction

- **Distant past (fossil record):**
  - For every thousand mammal species, less than one went extinct every millennium.

- **Recent past (known extinctions):**
  - Current extinction rate is up to one thousand times higher than the fossil record.

- **Future (modeled):**
  - Projected future extinction rate is more than ten times higher than current rate.

**Extinctions per thousand species per millennium**

- **Marine species:**
  - 1 extinctions per thousand

- **Mammals:**
  - 0.1 extinctions per thousand

- **Birds:**
  - 1 extinctions per thousand

- **Amphibians:**
  - 10 extinctions per thousand

- **All species:**
  - 100 extinctions per thousand

Source: Millennium Ecosystem Assessment
Causation or Just Correlation?

![Species Extinction and Human Population Graph](image-url)
Well, people succeeded in reducing biodiversity down to one species.

And they always thought it would be them.

A pity we're too primitive to appreciate the irony.
What is Our Sustainability Plan?

We are the last Dodos on the planet, so I've put all of our eggs safely into this basket...
Need for Governance: Corporate and Social

- Most species on Earth have not lasted more than a few million years.
- Humans are about at average right now?
- Shall we exceed the average?
- Isolated human civilizations have gone extinct in known history because they could not find socio-political-economic solutions to resource scarcity: lack of governance.
- It can happen again in a globalized society—except this time at a global scale.
- What will it take to sustain the species?
- Good governance.
SUSTAINABILITY

• AT WHAT RATE OF CONSUMPTION PER CAPITA: C?
• FOR HOW MANY PEOPLE: N?
• FOR HOW LONG: T?
• THE RESOURCE CONSTRAINT ON C-N-T
• SOME DISCUSSIONS OF SUSTAINABILITY MIGHT REFER TO CONSUMPTION BUT RARELY TO POPULATION
• WHAT IS PREVENTING US FROM DEVELOPING RATIONAL AND EFFECTIVE SOLUTIONS TO THE THREAT TO OUR SUSTAINABILITY--IT IS LACK OF GOOD GOVERNANCE in corporations and in society
WHAT IS CORPORATION?
A Set of Contracts or Alliances
WHAT IS GOOD GOVERNANCE?

• Each participant has self interest
• Each participant has expectations of behavior of other participants
• Good governance is balance between self-interest of each participant, and what others expect of him or her
• When such balance is achieved for everyone in the organization or society, it is said to have good governance because it helps all achieve their legitimate goals
Alternative Theories of Governance

- Corporation does or should maximize value to the shareholders
- Corporation does or should maximize value to employees
- Corporation does or should maximize value to the customers
- None of these “one sided” theories work because they lack balance; good governance in corporations as well as society calls for a balance among the interests of all participants
Generation/Distribution of Surplus

• For an organization to be sustainable, it must produce surplus (output > OC of inputs)

• Surplus must be distributed so every participant receives a non-negative amount (i.e., receipts of each participant > OC of their contribution to the organization)

• Unless both these conditions are met, the organization fails and disintegrates because disadvantaged participants leave
Governance for Sustainance

• A corporation must generate surplus and distribute it in an acceptable fashion to be sustainable
• A society must generate surplus and distribute it in an acceptable fashion
• As economic, physical and social environment changes, the governance must adjust the terms of the alliance to retain its sustainability
LEADERSHIP AND VISION

• DO WE HAVE SUCH VISION TO SUSTAIN ORGANIZATIONS AND SOCIETY BEYOND A FEW DECADES OR A FEW GENERATIONS?

• WHAT DO WE DO, IF WE THINK SUSTAINABILY IS IMPORTANT?
  – MAY BE IT IS NOT IMPORTANT!
  – MAY BE WE CAN FIND A WAY

• RECYCLING BOTTLES AND KYOTO PROTOCOL MAY NOT BE ENOUGH TO SUSTAIN ENVIRONMENT

• PURSUIT OF SHAREHOLDERS INTERESTS ALONE MAY NOT BE ENOUGH TO SUSTAIN CORPORATIONS

• A BROADER PERSPECTIVE IS NEEDED ON BOTH SUSTAINABILITY AND GOVERNANCE
OPEN DISCUSSION

• WHAT DO YOU THINK?