

**Resource Management:  
INSTITUTIONS AND  
INSTITUTIONAL DESIGN**  
Erling Berge

**Introduction to the problem**

NTNU, Trondheim  
Fall 2006

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**Problems in the world**

- War
  - Injustice
  - Poverty
  - Illness
  - Environmental degradation
  - Climate change
- Why?  
What can be done?

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**A survey based on**

- Diamond, Jared 2005, *Collapse: How Societies Choose to Fail or Succeed*, Viking, New York  
– A comprehensive well argued survey of both current and past humanly induced environmental problems
- de Soto, Hernando 2000, *The Mystery of Capital*, Basic Books, New York  
– An argument about how urban poverty can be drastically diminished by introducing appropriate legislation on property rights
- Easterly, William 2001, *The Elusive Quest for Growth*, MIT Press, Cambridge  
– Some observations on efforts that did not create social or economic development, and why they did not work

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How societies choose to fail or survive

- Proximate causes
  - Conquered by a hostile neighbour
  - Shifts in trade relations
- Ultimate causes
  - Population growth
  - Unsustainable practices in food production causing environmental damage

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Five factors that may contribute to collapse

- Environmental damage
- Climate change
- Hostile neighbours
- Friendly trade partners
- Response to growing problems

Usually 2 or more factors interact to produce the collapse

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The collapse of Norse Greenland

- Environmental damage (deforestation and overgrazing, soil loss)
- Climate change (the little ice age 14-1800)
- Loss of trade contact with Norway
- Unfriendly relations with Inuit
- No appropriate response to growing problems (rigid conservative culture)

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## Australia: Quo vadis?

- Problems
  - Poor soil quality (Low in nutrition, High in salt)
    - Consequences
      - Higher cost of fertilizer and fuel to machinery
      - Low growth rates for trees
      - Low growth rates for fish
  - Little available water (Low average rainfall and unpredictable occurrence)
    - Consequences
      - Increases the production costs in the short run and the erosion in the long run

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## Australia continued

- Problems continued
  - The tyranny of distance (externally and internally)
    - Consequence
      - High transportation costs of exports
      - State covers cost of phone connections anywhere
      - Mega-urbanisation (5 cities comprise 58% of the population)

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## Australia continued

- Problems continued
  - Cultural values
    - Sheep farming – today unproductive but still extensive
    - Rabbits and foxes – introduced for trivial reasons
    - Native Australian vegetation – required clearance
    - Land values - overcapitalization
    - British identity – rural ideals, rural voting power

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### Australia continued

- Land degradation because of
  - Clearance of native vegetation
  - Overgrazing by sheep
  - Rabbits
  - Soil nutrient exhaustion
  - Soil erosion
  - Man made droughts
  - Weeds
  - Misguided government policies
  - Salinization

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### Australia continued

- Other problems
  - Forestry - overlogging
  - Marine fisheries – over-harvested
  - Freshwater fisheries - over-harvested
  - Freshwater, over-and misuse sustained by water licences
  - Alien species – foxes and rabbits

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### Australia continued

- Signs of hope
  - Changing attitudes
  - Rethinking by farmers
  - Private initiatives – top-down management is replaced by bottom-up (e.g. by means of landscape trusts)
  - Some radical government rethinking and planning

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### Why making disastrous decisions?

#### Types of contributing factors

- Failing to anticipate problems before they arrive
- Failing to perceive a problem that has arrived
- Failing to try to solve a problem that is perceived
- No success in solving a perceived problem

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### Failing to anticipate problems before they arrive because

- Lack of experience and knowledge particularly in non-literate societies
  - E.g. alien introductions
- Reasoning by false analogy
  - Similar vegetation, unfamiliar soil characteristics
- "Collective amnesia", the institutionally induced capacity to forget the significance of bad experiences

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### Failing to perceive a problem that has arrived because

- Imperceptible growth of problem increasing with each generation (creeping normalcy and landscape amnesia)
  - E.g. leaching of soil nutrients
- Growth of problem hidden by variances on observations
  - E.g. year to year fluctuations in weather patterns
- Distant managers, no attention to far away problem growth

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### Failing to try to solve a problem that is perceived because

- Failure of collective action (individual rational behaviour, collective disastrous results)
  - Tragedy of the commons, subsidizing known disastrous practices, property rights giving the wrong incentives, governing elites perpetuates disastrous policies for their own benefit (see Ostrom, North)
- Inability to change behaviour because of deeply held values
  - Life-and-death decisions are affected by religious, cultural, and economic values (see M. Douglas)
- Problem dismissed because of the messenger, many false alarms, ISEP
- Day-to-day problems of survival crowd out long term problem solving
  - E.g. poverty, political survival, too high discount rate in planning, crowd psychology or politically "correct" thinking, denial

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### No success in solving a perceived problem because

- Problem is beyond current capabilities
  - Elimination of alien species
- Solution is prohibitively expensive
  - Preventing the large disastrous forest fires
- Effort to solve is too little too late
  - Saving endangered species
- Implementation exacerbates the problem
  - Introductions of alien species

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### Big business and resource governance

#### Resource classes

- Energy (Oil, Gas, Coal)
- Metals
- Forests
- Marine Fish

Various types of consumer organisations and new government regulations promises improvement for the environmental impact of business

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### Concluding: the world as a polder

The major problems of today

1. Destruction of natural habitats
2. Destruction of valuable wild food sources
3. Reduction of biodiversity/ loss of species
4. Erosion of farmland/ leaching of nutrients
5. Supply of fossil energy may have peaked
6. Supply of usable freshwater may have peaked
7. Earth's photosynthetic capacity is soon used up
8. Chemical pollution of earth and water
9. Introductions of alien species
10. Production of hot-house gases
11. Population growth
12. The ecological impact of a population

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### Concluding: the world as a polder

- On balance Jared Diamond is a cautious optimist, based on the growth in number of people concerned about the environment, the ability to learn from past collapses and communicate our knowledge, the changes in values also among business elites, most of our problems are not insoluble (not yet), and some governments that commit to bold long term planning and courageous shifts in values and policies

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### Why capitalism triumphs in the West and fails everywhere else

- Hernando de Soto provides empirical observations of the dysfunctional consequences of
  - Illegitimate and insecure property rights
  - Poorly enforced laws
  - Barriers to entry of markets
  - Monopolistic restrictions
- Resulting in permanent underdevelopment

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## 5 mysteries of capital

- Missing Information
- Capital
- Political Awareness
- Missing Lessons of US History
- Legal Failure

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## Missing Information

- On the continuous creation of wealth in the large urban sprawls of the developing world
- On the extraordinary inapplicability of existing legislation, currently creating an extra-legal sector comprising some 50-85% of the population

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## Capital

- Is created by the formal property system of a society. It
  - Fixes the economic potential of assets
  - Integrates dispersed information
  - Makes people accountable
  - Makes assets fungible
  - Networks people
  - Protects transactions

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### Political Awareness

- People move away from agriculture and small scale society to urban life and large scale society: a new industrial revolution is brewing
- Law has not kept pace and the result is a growing extralegal sector
- The problem is not new. The West experienced it, and solved it.
- How long will it take for governments to recognise it?

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### Missing Lessons of US history

- Squatting was common
- Pre-emption: squatters improving land could recover its value or buy the land before it was offered in public sale
- Gradually the extralegal sector was recognized and integrated in to the formal system

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### Legal Failure (1)

- Misconceptions of current policy
  - People go to the extralegal sector to avoid paying taxes
  - Extralegal real estate exist because of inadequate surveying and mapping
  - Mandatory law is sufficient, compliance costs irrelevant
  - Existing extralegal social contracts can be ignored

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## Legal Failure (2)

- It is possible to change people's conventions on how they can hold their assets, both legal and extralegal without high-level political leadership

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## Legitimation

- Law must build on existing social contracts
- The extralegal sector has developed their own law, their own understanding of what property is and what they can do with it
- Unless land reform builds on this, it will fail miserably as the many failed attempts at land reform already should show us

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## Making better formal law

- Study the various extralegal sectors
- Extract the principles used by the people
- Compare it to existing law
- Adjust formal law and insert the principles used by people
- The result is much nearer a self-enforcing system of law

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## The political challenge

- Changing status quo of property rights is a major political task requiring
  - Taking the perspective of the poor
  - Co-opt the elite
  - Deal with the legal and technical bureaucrats guarding the current system

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## Comment

- De Soto is a highly controversial person. His book is sufficiently unclear that superficial reading of it may confirm the long held and repeatedly repudiated belief held by many that introduction of land titles will be the starting point of a positive developmental process
- His book has thus inspired the establishment of "The High Level Commission for the Legal Empowerment of the Poor" <http://legalempowerment.undp.org/>
- This again led to the establishment of a group called "DeSotoWatch" <http://www.desotowatch.net/>
- The topic of his book however is important and in my judgement it does not say the things he is criticised for. Neither does it contain the solution to poverty.

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## Economics of development

Searching for the Holy Grail of development

- Investment in infrastructure (production capital)
- Education
- Controlling population growth
- Loans tied to reforms
- Debt relief tied to reforms

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### People respond to incentives

- “people do what they get paid to do, what they don’t get paid to do they don’t do”

It is a fact that

- Growth of GDP reduces hunger, infant mortality and poverty
- Current development aid does not work

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### Development aid the does not work

- Aid-financed investment in dams, roads, machines will create growth (The 1946 Harrod-Domar model)
- Domar’s approach: “GDP growth will be proportional to the share of investment spending in GDP”. To get high growth one needed high investment. Aid was enlisted to fill the gap between the country’s own investment and the level required for a chosen growth target. This would take a country through
- “the stages of economic growth” into self-sustained development (Rostow 1960)
- Evidence show that investment does not work

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### Investment is not the key to growth

- Robert Solow 1956/57: Investment in machinery cannot be a source of growth in the long run
- Technological change drives long run economic growth
- In cross-country comparisons investment in machines showed no effect either in the short or long term

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Education, population control, policy reforms

- Education cannot by itself induce growth
- Reduction in population growth do not create growth
- Loans conditional on policy reforms did not create growth. It created debt relief schemes
- .....
- So: what can create growth?

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Next

- This class will concentrate on the problems listed by Diamond in his chapter 14 under his third heading "Failing to try to solve a problem that is perceived": the problems of collective action and institutional design
- We shall continue next week by reviewing theories of institutions
  - Scott, W Richard 1995, *Institutions and Organisations*, Sage, London
  - Luhmann, N 1985, *A sociological theory of law*, Routledge and Kegan Paul, London

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