

How to Avoid the "Tragedy of the Commons" in Lebanon?

Towards a National Security Framework:
From Traditional Economics to Sustainable Socio-Economic Development and Good Governance

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Oct 16, 2015

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Traditional Economics

Traditional economics is the study of **decision making / choice** under conditions of **scarcity**.

It studies how individuals and societies choose to employ scarce resources that could have alternative uses in order to produce commodities and distribute them for consumption, now and in the future.

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Fundamental Concepts

Since so many aspects of our world involve choices necessitated by a condition of scarcity, some element of economics exists in most things we do, whether we are aware of it or not.

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Development Economics

Development economics, to a greater extent than traditional economics or even political economy, is concerned with the **economic, cultural and political** requirements for effecting rapid **structural and institutional transformations** of societies in a manner that will most efficiently bring **sustainable** economic progress to the broadest segments of their populations

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Development Economics

Development economics puts people back into the picture



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Key Concepts in Development Economics

- ▶ Economic and social equity
- ▶ Elimination of poverty
- ▶ Universal education
- ▶ Rising levels of living
- ▶ National independence
- ▶ Democracy
- ▶ Personal fulfillment

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Sustainability

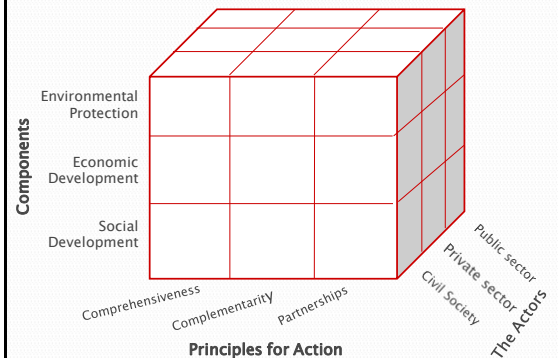
“Meeting the needs of the present (generations), without compromising the ability of future generations to meet their own needs.”

United Nations Brundtland Report, 1987

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Sustainable Development Matrix



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Achieving Sustainable Development The 3 components of SD

- **Environmental Protection:** Protecting ecosystems and efficient management of natural resources, including water, forests, energy, protection of biodiversity, protection against pollution, integrated waste management, etc.
- **Economic Development:** Eradication of poverty and improving well-being job creation, tourism development, etc.
- **Social Development:** Health protection and pension, equity, empowerment and public participation in policy-making, human rights, freedom of expression, cultural preservation, etc.

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Achieving Sustainable Development The 3 Basic Principles for Action

- **Comprehensiveness of Scope:** Inevitable interactions among the various components of SD: One cannot treat one component without dealing with the other components (poverty reduction cannot be treated without addressing education, health, women empowerment, etc.)
- **Complementarity of Actions:** SD cannot be achieved without addressing various aspects of the same issue, such as analysis of policies, strategies, and plans, documenting practices, scientific research, diagnose the problems, and propose solutions, etc.
- **Partnerships:** It is unrealistic to think that one actor alone, whatever its capacities are, could progress towards SD without building wide alliances with other concerned actors.

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Achieving Sustainable Development The Triangle of Main Actors

- **The Public Sector:** Government, Municipalities, Public Institutions, etc.
- **The Private Sector:** Industries, Financial Institutions, Tourism sector, etc.
- **The Civil Society:** NGOs, Educational Institutions, Research Institutions, Media, etc.

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Sustainability= People need to make profit without troubling the planet



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From Traditional Economic Growth to Sustainable Socio-Economic Development

Traditional Economic Measures

GNP, GDP, GNI (Gross National Income), Income per capita

New View of Sustainable Development

SD is a **multidimensional process** involving major changes in social structures, attitudes, institutions, acceleration of economic growth, reduction of inequality, eradication of poverty, and protection of natural resources

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Development: Well being and freedom of choice

- ✓ Economic growth cannot be treated as an end in itself.
- ✓ Development has to be more concerned with enhancing the lives we lead and the freedoms we enjoy.
- **Higher income does not necessarily imply higher development.** Only if this higher income translates into improved well being
- Deprivation through ignorance, government oppression, bad governance, corruption, etc. **do not lead to development– EVEN if incomes are higher.**

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Can we put “socio-economic development” on one side, and the “environment” on the other side?

- Environmental issues affect, and are affected by socio-economic development
- Poverty and ignorance may lead to non-sustainable use of environmental resources

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Main Environmental Issues in Lebanon

- Water management
- Solid waste management
- Waste water management
- Energy consumption
- Transportation
- Oil and gas exploitation
- Urban congestion -especially with recent urban slums and refugees
- Adverse health impacts due to pollution
- Prevalence of unsanitary conditions (lack of clean water and pollution)
- Local conflicts over natural resources and “the tragedy of the commons” (SWM example)

**MOST ENVIRONMENTAL ISSUES
HAVE EMBEDDED ASPECT OF “THE COMMONS”**

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The Case of Lebanon: Despite legal texts to manage the “commons”, the current set up is still characterized by:

- Lack of transparency in policy making
- Ineffective management
- Ambiguous institutional goals
- Misinterpretation and poor compliance of the laws
- Poor governance
- Extensive violation of the public domains
- Cross-Cutting Responsibilities among ministries

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The Commons Problems

- Garrett Hardin (1968) presented a compelling story about “common” resources (public goods). He gave the example of a pasture open to all; where the rational herdsman seeks to maximize his gain.
- When someone adds more cattle to the pasture, there is a disparity between the flows of benefits and costs. The benefits flow to the person who added more cattle to the communal grazing land and may take the form of greater income from selling more calves or dairy products. The costs, however, are shared by all who use the grazing commons and take the form of less feed and degraded pasture conditions.

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Tragedy of the Commons

Thus, **common resources** are susceptible to **overuse and depletion**. It is a **tragedy** because it would be in the interests of all if everyone were to conserve; without access restrictions, however, this will not happen.

The process, by which a common resource is depleted because no individual has an incentive to conserve, was named as the **Tragedy of the Commons**.

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Waste Problem in Lebanon

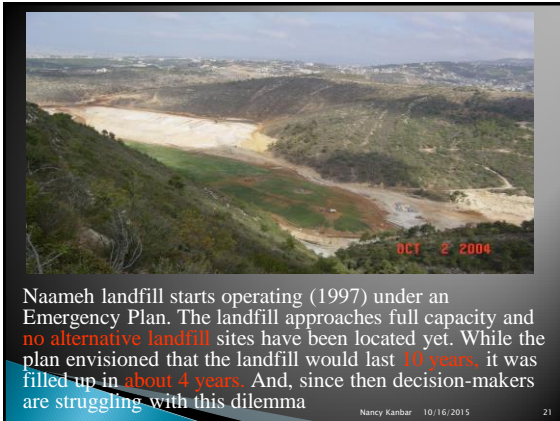
A commons dilemma impacting national security

We will use the waste problem as a testbed to show how bad governance of a “common” good can negatively impact national security

- a) This problem is an important **practical problem with implications for sustainable development** in a rapidly urbanizing developing nation.
- b) It has elements of **risk and uncertainty** and **willingness to change individual behavior** for collective benefit
- c) It is a classic **commons dilemma**. While everyone generates wastes, public opposition against having landfills emerges as a social movement presenting a social problem.

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Naameh landfill starts operating (1997) under an Emergency Plan. The landfill approaches full capacity and **no alternative landfill** sites have been located yet. While the plan envisioned that the landfill would last **10 years**, it was filled up in **about 4 years**. And, since then decision-makers are struggling with this dilemma

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Failure of a National SWM strategy

- ▶ 1999: The MOE developed a **national strategy** for SWM advocating the **implementation of source separation**.
- ▶ However, the lack of consensus among institutional stakeholders on how to handle the problem hinders effective solutions.

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How to solve “Commons” Dilemmas?

There is a real puzzle to develop a consistent theory to explain why specific conditions increase or decrease **cooperation in conflict situations**

Individuals inherit a capacity to learn **reciprocity norms** and social rules that enhance the opportunities to increase long-term returns from interactions and cooperation

Reciprocity norms: individuals tend to react positively to the positive actions of others and negatively to the negative actions of others.

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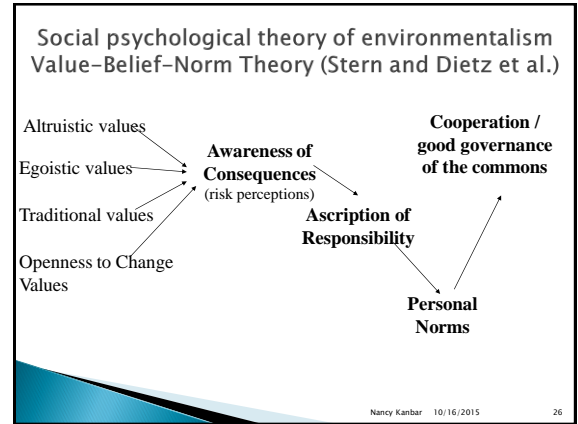
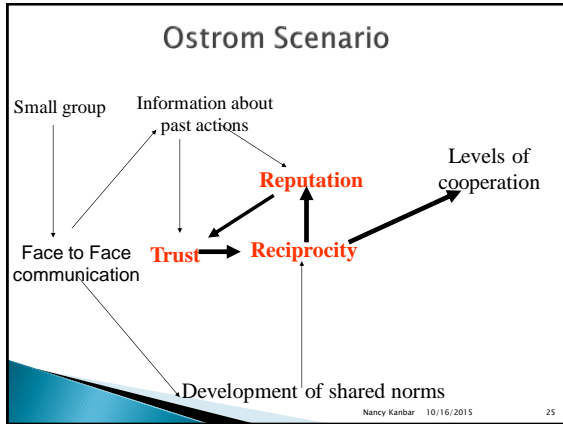
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Elinor Ostrom (Nobel Prize in Economics in 2009)

- ▶ Ostrom suggests that at the core of a theory on cooperation in a common problem situation are the links of structural variables to an inner triangle of **trust, reciprocity, and reputation** as these, in turn, affect the level of cooperation.
- ▶ simple scenario

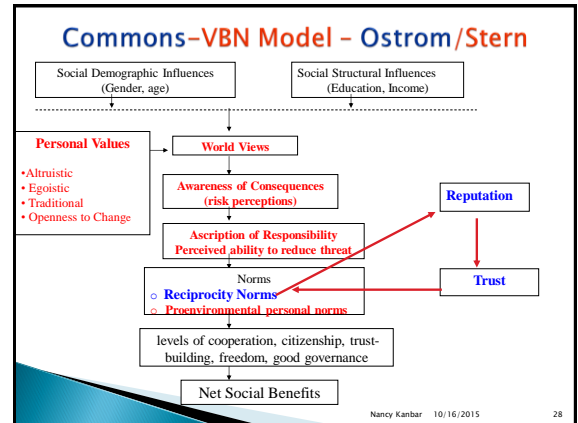
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Integrating social psychological theories with theories of decision-making in collective action situation can lead to good governance of the commons dilemmas

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Survey (Empirical Study)

Sample: 700 households

Questionnaire included questions on:
Personal values, world views, risk perceptions (Awareness of Consequences beliefs), Ascription of Responsibility beliefs, norms, trust and reciprocity

Attributes	Program A	Program B	Neither A nor B
Separate food wastes at home	Yes	No	No
Pay additional fees to sort wastes	No	Yes	No

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What did Lebanese choose?

	%	Why did you choose?	%
Plan A	70.2	Separation of food wastes at home provides environmental and/or economic benefits	51.47
		The management of local problems, such as the waste problem, is the responsibility of local residents	32.88
		I cannot afford to pay a fee	15.65
		I believe that separation of food wastes at home will not solve the problem	15.93
Plan B	18.0	Other members of my community will not separate their wastes	43.36
		I don't have time to separate wastes	40.71
		I do not have any problem with the current waste management system	2.70
Neither A nor B	11.8	The government should solve the waste problem, it should not cost me anything	50.00
		I believe that the government will not enforce any effective regulation related to waste management	47.30

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Descriptive Statistics

84%	dissatisfied with SWM in their region
89%	concerned about the impact of waste sites on their property values
98%	Believe that the waste problem poses a threat to their health
93%	Believe that if we continue to dispose of wastes the way we now do, there will be a major environmental problem
92%	Believe that ineffective government regulation is the main reason for the problem
77%	Believe that poor work by waste contractors is the main reason for the problem
95%	Believe that their participation in separation would also benefit others in the community
89%	Feel a personal obligation to do whatever they can to help solve the problem
97%	Believe that all members of the society should cooperate to help solve the problem.
96%	Indicate that protecting people from risks should be a top priority of the government
90%	Believe that contractors have a responsibility to help solve the problem

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Key Findings

- The majority of the sample cited the **perceived health, environmental as well as economic threats to local communities**. They are aware of the risk factors associated with the waste problem and are ready to **cooperate** if the process is truthful and trustworthy.
- Individuals who **trust the government to enforce regulations and who trust that others in their community** will sort their wastes are more likely to sort; suggesting that **cooperation levels increase when trust is enhanced by reciprocity norms**.
- The **integration** of social psychological theory and collective action in commons dilemmas **theories can better account** for solving the tragedy of the commons

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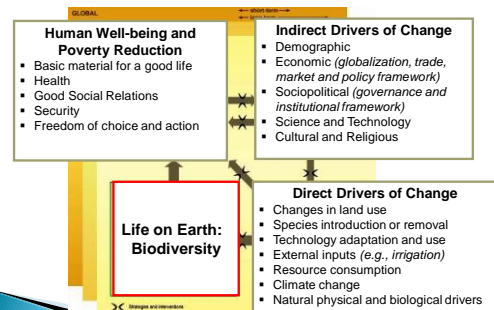
Policy Implications

- ✓ The willingness to solve "commons dilemmas" is **value-based**. Personal values have shown to be crucial. Thus, policies must elicit the message of sustainability.
- ✓ The findings imply the need of decision-makers to create an environment where **trust of the institutions** is prevalent. There is a need to restore trust and ensure the participation of individuals in government policies. Decision processes require a degree of **transparency and involvement** with the citizens that has rarely been attempted in Lebanon.
- ✓ The study provides an example of how to examine behavior towards waste management in this case, yet **both the approach and the model could be used to address other issues of national security**.

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Food for Thought: Millennium Assessment Conceptual Framework



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A scientific assessment applies the judgment of experts to existing knowledge to provide scientifically credible answers to policy relevant questions



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Criteria for successful assessments

- ✓ Political Legitimacy
- ✓ Scientific Credibility
- ✓ Focus on User Needs

How to Build Sustainable Socio-Economic National Security Framework?

Avoid the
“Tragedy of the Commons”



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Many thanks for your attention

October 16, 2015
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