

2490-11

**Joint ICTP-IAEA Advancing Modelling of Climate, Land-use,
Energy and Water (CLEW) Interactions**

7 - 11 October 2013

**Institutional and Governance Contexts of Energy-Food-Water
Security Challenge: Some Ruminations**

Deepak Sharma
*University of Technology
Sydney
Australia*

Institutional and Governance Contexts of Energy-Food-Water Security Challenge: Some Ruminations

Deepak Sharma

Centre for Energy Policy

University of Technology, Sydney

Joint ICTP-IAEA Advanced Modelling of Climate, Land-use, Energy and Water (CLEW) Interactions

**ICTP, Trieste
7-11 October 2013**

FOCUS

To ruminate on the significance of institutional and governance contexts of energy-water-food security challenge

PREMISES

- **ENERGY-FOOD-WATER SECURITY**
 - a pivotal policy challenge
- **CURRENT POLICY DISCOURSE**
 - limiting
 - neglectful of institutional and governance contexts
- **NEED FOR BROADENING THE DISCOURSE**

ENERGY-FOOD-WATER SECURITY

- **SECURITY**
 - an innate human instinct
- **HUMAN JOURNEY**
 - a quest for security
 - each epoch: a unique security narrative
- **SECURITY NARRATIVE**
 - logic: prevalent orthodoxies
 - contradictions, implausibility, new narrative
 - continuation of human journey!

ENERGY-FOOD-WATER SECURITY (contd.)

- **ENERGY-FOOD-WATER SECURITY**
 - reflection of pressing human concern
 - a defining security narrative
 - a pivotal policy challenge
- **HOW TO REDRESS THE SECURITY CHALLENGE?**
 - revisit current policy discourse

CURRENT POLICY DISCOURSE

POLICY FRAMEWORK: BROAD CONTOURS

- **FOUNDATION**
 - *Positivist*
- **QUINTESSENCE**
 - (neo-classical) economics, Rational Choice theory
- **DEFINING PARADIGMS**
 - human development, material progress, economic growth
 - nature's subjugation to human wants
 - (Ricardian) scarcity
 - technological determinism

Current Policy Framework: Broad Contours (contd.)

- **ANALYTICAL APPROACHES (MODELS)**
 - optimization (mathematical, econometric, economic)
 - methodological reductionism
- **INDICATORS**
 - GDP (welfare), Cost-Benefit Ratio, NPV, RoR, LCC
- **CRITERIA**
 - maximize, minimize

SOME IMPLICATIONS

- **ENERGY, FOOD, WATER**
 - economic commodities
 - market mediation
 - price-based exchange
- **ENERGY-FOOD-WATER SECURITY**
 - access, affordability, sustainability
 - technology, market mediation, price-based arbitration
- **CAUSES OF INSECURITY AND REMEDIES**
 - domain-centric, efficacy, doctrinaire

A VIEWPOINT

- **CURRENT POLICY DISCOURSE**
 - narrow, insular
 - unappreciative of the multitudinousness and interconnectedness of security constructs
 - dismissive of institutional (historic, cultural) influences
 - (hence) limiting, incapable of redressing the security challenge
- **REMEDY**
 - institutional perspective

INSTITUTIONAL PERSPECTIVE

- **INSTITUTIONS**

- rules of the game
- constraints shaping human interactions
- formal (formally devised by humans) and informal (social, cultural, spiritual influences)
- political, social, economic

- **GOVERNANCE**

- mechanisms for institutionalization
- organizations
- decision processes
- implementation practices

Institutional Perspective (contd.)

- **APPROACHES**
 - **Institutional Economics**
 - **Political Economy**
- **INSTITUTIONAL ECONOMICS**
 - **emphasis: economic institutions**
 - **institution economics V neo-classical economics**
 - **Old (methodological holism)**
 - **New (methodological individualism)**

Institutional Perspective (contd.)

- **NEW INSTITUTIONAL ECONOMICS**
 - analysis of institution formation (levels 1 to 4)
 - analysis of institutional change
 - analysis of political power
- **ANALYSIS OF INSTITUTIONAL CHANGE: FRAMEWORKS**
 - intentionally created
 - evolutionary
 - equilibrium
- **ANALYSIS OF POLITICAL POWER**
 - domain
 - scope

POLICY DISCOURSE: MAJOR FRAMEWORKS

- **POSITIVIST**
- **POST-POSITIVIST (CONSTRUCTIONIST)**
- **POST-CONSTRUCTIONIST (META-PHYSIC)**

FRAMEWORKS FOR POLICY DISCOURSE: KEY FEATURES

	POSITIVIST (RATIONAL)	POSTPOSITIVIST (CONSTRUCTIONIST)	POSTCONSTRUCTIONIST (METAPHYSIC)
ADVENT	17 th Century	Early 20 th Century	Late 20 th Century
IMPETUS	Reaction to Scholasticism Enlightenment	Insularity of Positivism	Acontextualization Consciousness
REALITY KNOWLEDGE	Ratio	Text	Context
POLICY	Objective Decision	Social Construct	Search for 'meaning'
APPROACH	Objectivity Reductionism	Subjectivity Pluralism	Contextuality Cognition Reflection Retrospection
TECHNIQUES	Rational Choice Cost-benefit Analysis Decision Theory Game Theory	Rational Choice Institutional Economics New-Institutional Public Choice	Political Choice New-Institutional Economics Cognitive Theory Transcendentalism
MEASURES	Utility	Utility, Power, Domination	Engagement Contextualization
CRITERIA	<i>Summum bonum</i>	Satisficing	Acceptance

FRAMEWORKS FOR POLICY DISCOURSE: KEY FEATURES (contd.)

	POSITIVIST (RATIONAL)	POSTPOSITIVIST (CONSTRUCTIONIST)	POSTCONSTRUCTIONIST (METAPHYSIC)
HUMAN VS NATURE - Separability - Human - Nature - Knowledge	Complete <i>Apex, Res cogitans</i> Subjugated Mental Processes	Interacting Apex Subjugated Tradition matters	Inseparable Equal Constituents Integral (Sub-) Consciousness
DIMENSIONALITY	Irretrievably lost		Retained
UNIT	Body (Matter)	Body–Brain (Mind)	Body–Brain–Mind (Spirit)
JUSTICE, EQUITY, FAIRNESS	Mathematized away	Subjectivized	Integral Fundamental
CLAIM	Theory of the Truth		Theory of ‘meaning’
MAJOR THINKERS	Descartes, Locke, Hume	Wittgenstein, Popper, Kuhn, Marx, Weber, Neitzsche, Freud, Kant, Hobbes, Rawls, Aristotle	Bergson, Sperry, Mumford, Harman, North, Giddens, Vivekananda

FRAMEWORKS FOR POLICY DISCOURSE: KEY FEATURES (contd.)

	POSITIVIST (RATIONAL)	POSTPOSITIVIST (CONSTRUCTIONIST)	POSTCONSTRUCTIONIST (METAPHYSIC)
ENERGY, WATER, FOOD - Role - Commodity - Security - Causes/Remedies - Consensus	Fundamental to survival		Fundamental to Human Identity
	Market	Market, Social	Cultural, Psychological
	A pivotal policy challenge		
	State V Market	Market V Context	Context V Human essence
	Gravity, Complexity, Redress, Ramifications		
INSTITUTIONS - Formal - Informal	Acknowledged (but) Ignored	Acknowledged Considered	Integral Considered
	Ignored	Limited Consideration	Fundamental

FRAMEWORKS FOR POLICY DISCOURSE: KEY FEATURES (contd.)

	POSITIVIST (RATIONAL)	POSTPOSITIVIST (CONSTRUCTIONIST)	POSTCONSTRUCTIONIST (METAPHYSIC)
EXPERIENCE			
- Expectation V Outcome	Significance Divergence	Reduced Divergence	Significance Convergence
- Disconnect <i>Analysis V Policy</i>	Overwhelming	Significant	Less appreciable
Model V Analysis	Significant	Appreciable	Less appreciable
Model V Reality	Appreciable	Less appreciable	Un-appreciable

SOME RUMINATIONS

- **CURRENT POLICY DISCOURSE**
 - insular, narrow, dogmatic, ignores institutions
- **IMPLICATIONS**
 - policy dissonance
- **REMEDY**
 - institutional perspective
- **CHALLENGE**
 - inertia
- **SOME EARLY TRENDS**
 - departures from comfort zones!