TOPIC OUTLINE FOR COURSE ON NEW ECONOMIC THEORY

Ideas have power to change the world. Thought precedes action. Changing the economic policies and behaviours that are generating high levels of unemployment, widening inequality and bankrupting Nature is not possible without first changing the erroneous economic concepts and theories on which the world economy is currently functioning. A change in thinking can lead to a radical change in action. This course will harness the best available ideas and practices on human-centred, sustainable economy to create informative, authoritative and compelling educational and communication tools with the power to challenge and alter university level education in Economics, public policy, business decisions, media coverage and general public opinion regarding how the world economy should and can work for the betterment of all humanity.

1 Introduction to the Course

Rationale

Efforts to reform current economic policy and institutions are invariably opposed by both an intellectual orthodoxy and vested economic interests. They draw on the conventional wisdom of prevailing economic theory to support prevailing policies. They argue that given the laws of economy and current circumstances, application of current theory will result in the best possible outcomes. This simply is not true. The multidimensional challenges confronting humanity today are human-made and can be changed by a change in thought and action. Theoretical limitations and misconceptions are a primary root cause of persistent poverty, rapid and rising levels of unemployment, inequality, and calamitous environmental threats. Contemporary economic thought is built on a mind-frame that originated prior to the Industrial Revolution when scarcity of goods in a world of abundant resources was the primary concern, economic growth was considered synonymous with human welfare, and impact of humanity on the environment was completely ignored. Without challenging obvious flaws in existing theory, it will be not be possible to significantly alter current policies and practices.

A new conceptual framework is urgently needed to project an alternative conception attuned to the realities of the 21st century and the welfare of all humanity. Alternative views on economic theory and practice have been surfacing for decades, but until recently they have been shut out, rejected or dismissed by mainstream orthodox economists of different schools, because they challenge the fundamental assumptions on which all mainstream economic thought and prevailing economic policy are based. Today the situation is different. Authoritative alternative views of economy based on hard facts and compelling arguments are now gaining serious attention, but they still remain largely off-campus, off-camera, and off the radar of public policy and decision-makers.

Objective

The goal is to develop the framework and core elements of new economic theory with the power to effect a rapid transition to economic theory better suited to

 Maximize economic security, social welfare, psychological well-being and the promotion of human dignity and universal human rights;

- Perceive people as the most precious resource and development of all forms of human and social capacities (human and social capital) as the most important form of productive capital;
- Ensure to all employment opportunities and meaningful occupation or adequate alternative means for achieving economic security, including both youth and the increasingly health and active elderly populations;
- Regulate the global casino of financial speculation that currently destabilizes economies and impoverishes people;
- Manage the world's resources in a sustainable manner for both present and future generations;
- Promote a more equitable distribution of income and wealth within the constraints imposed by the planet's resources;
- Resolve the apparent contradiction between human welfare and ecological sustainability by shifting the focus from unlimited, wasteful, material consumption based on energy and material intensive technologies to maximum security, welfare, well-being and developmental opportunities for people.

These objectives reflect core elements of the United Nations' Millennium Development Goals, which represents a global consensus of humanity.

In order to do this the new theory must necessarily be evolutionary, transdisciplinary and integrated. It must be founded on the understanding the economy and society are both open systems that undergo continuous development. It needs also to encompass and to integrate political, social, cultural, organizational, technological, psychological and ecological factors, forces, systems, structures, institutions and processes traditionally regarded as external to economy, but which are in fact fundamental determinates of the way an economy functions.

Furthermore, it needs to be based on the realization that economic systems are a function of values, beliefs, social forces and prevailing power structures that inevitably evolve over time, rather than immutable laws of Nature. The objective of the course is to make conscious and explicit the points at which existing theory implicitly accepts and regards as absolute premises that can and need to be altered.

The project will seek to actively engage and involve graduate students in order to ensure that it addresses the growing concerns among the next generation of economic students regarding internal inconsistences and inadequacies in what is now being taught. A specific objective of the project is to identify research questions that will address the failures of current theory and stimulate new lines of research among young scholars in the field.

Course Overview

This preliminary course outline provides a brief overview and outline of the NET course with a list of major topics and key discussion points incorporating ideas from the NET Working Group. The actual course structure and composition will naturally evolve as the project proceeds.

The outline describes the nature and objectives of the course, including the problems it seeks to address, the premises on which it is based, the methodology applied to develop it, and the appropriate manner in which its contents should be viewed as an effort to promote the evolution of economic theory and practice.

The overall aim of the course is to (a) demonstrate why mainstream neo-classical economic theory is inappropriate for dealing with the global challenges of the c.21st, and (b) elaborate a

new economic theory as the basis for achieving ecologically sustainable, human-centered development and welfare for all.

The course is organized into several major sections, each consisting of several topics. Each topic is further subdivided into several subtopics.

<u>Section 1: Topics 2 – 8 The Need for New Economic Theory</u> – This section will examine the role of economy in meeting human aspirations and the social process underlying economic and social development. It will trace the evolution of economic thought over the past two centuries to identify the factors, social forces and circumstances that supported their development and that now necessitate a reformulation of theory. It will present an overview of the main schools of economic thought and their major sub-schools to identify the full range of perspectives, assumptions and conditions on which different theories has be based. Contemporary economic theory largely regards the economy as a separate field of social existence functioning relatively independently from its social, political, cultural and ecological context. It focuses on a narrow range of policy instruments. It ignores fundamental social and psychological principles and processes applicable to all fields of human activity and powerful drivers for social development underpinning the evolution of global society. The opening group of lectures address the following questions: What are the critical issues in the world economy today that are not adequately addressed by current theories? What changes are needed in the conceptualization of the social sciences, including economics, in order to enhance their relevance to complex social realities and conscious social processes? What are the conceptual problems with contemporary economic theories? How do these problems impact on public policy and economy practice today? What are the limitations and errors resulting from current tools for measurement in Economics? What is the source of the multi-dimensional divorce between economy and sustainable development that characterizes the global economy today?

<u>Section 2: Topics 9 – 22 Core Elements of NET Theory and their Application</u> – Section 2 examines the rationale for a shift in perspective toward trans-disciplinary, human-centred social theory, core principles and perspectives on which NET is based, the organizing principles by which wealth creation is generating, eight different forms of capital which provide inputs for economic activity, underlying social drivers of economic development that powerfully impact on economic performance, the unique role of money and financial markets, the principles governing free and regulated markets, the political and legal foundations on which modern economies are based, the characteristics of social institutions and their evolution, and society and economy as complex systems and its implications.

<u>Section 3: Topics 23 – 32 Global Economic Challenges</u> – Section 3 applies the basic premises of NET to addressing the root causes of serious economic challenges confronting global society today and in coming decades related to food, poverty, employment, inequality, resource scarcity and ecological limits. It will review these challenges and identify the underlying economic processes that reproduce these challenges and undermine the potential solutions.

Section 4: Topics 33 – 35 Evolution of Economy – Section 4 considers the ways in which economy, society and ecology are evolving and the impact of evolutionary changes resulting from globalization, technological development, dematerialization, the growing importance of networking and knowledge based services, and the changing boundaries between public and private goods. It shows how changes in economic theory are needed to respond and adapt to these broader evolutionary trends. This will be done by using transition theory to understand the major industrial transitions that have taken place since the start of the industrial revolution, as well as the major socio-metabolic transitions that have taken place since the last ice age 13000 years ago. This provides a framework for understanding the current poly-crisis and the need for a transition to a more sustainable, inclusive long-term development cycle. This section

will show how changes in economic theory are needed to respond and adapt to these broader evolutionary and transitionary trends -- not just another industrial transition, but an industrial transition that is driven by the dynamics of a socio-metabolic transition to more sustainable modes of production and consumption.

Section 5: Topics 36 – 37 Boundaries of economy – This section addresses important issues ignored by contemporary economic theory which relate to the explicit and implicit relationship and interdependence between economy, politics, society and nature. It applies NET to understanding the relationship between the monetarized sector of economy and the large non-monetarized sector, which is a major determinant of human welfare, well-being and ecological sustainability. It also considers the broad notion of social power, with emphasis on the impact of the linkage between money power and political power, which is a major determinant of how markets work and who benefits from economic activity. The aim is to demonstrate the importance of an economic theory that is rooted in the actual real-world dynamics of the real economy rather than derived from models with assumptions that derive from an economic theory that is divorced from the dynamics of the real economy.

<u>Section 6: Topics 38 – 42 Towards a human-centered theory and practice</u> – This section examines the potential impact of NET on human welfare and ecological sustainability, its public policy implications, the process of transition to a new paradigm of economic development and future steps for the development of human-centered economic theory. Many case studies will be cited that reflect how economic actors can cooperate either within specific regions or across sectors to create the basis for more inclusive and sustainable forms of economic production and consumption.

Section 2: The Need for New Economic Theory

2 Human Aspirations, Human Rights & Social Process

Economy constitutes on central component of the integrated social fabric created by human beings to meet their needs and fulfill their aspirations in cooperation with one another. Economic theory must necessarily be founded on an understanding of human aspirations and the social process groups utilize for individual and collective achievement. This topic will examine the evolution of human needs and aspirations and the social and ecological context within which we seek to fulfill them.

- 2.1 Historical development of global social progress since 1800
- 2.2 The evolution of human rights and its relationship to social progress
- 2.3 The process of social development and social evolution
- 2.4 The role of challenges and crises in social evolution
- 2.5 Evolutionary and revolutionary change

3 A brief history of Economy

A historical overview of human economic progress will highlight the fundamental processes underlying economic development and wealth creation, the evolutionary nature of economy and society, and the necessity for the evolution of concepts and principles to keep pace with the rapidly changing social context.

- 3.1 Historical development of the world economy from 1800
- 3.2 Economic achievements of the 19th and 20th century

4 World Economy Today

An overview of the world economy today will highlight its achievements, problems and the problems it confronts in addressing critical problems and meeting critical social objectives. The analysis will point out the linkage between persistent problems and prevailing theoretical concepts that necessitate and justify formulation of new theory.

- 4.1 Overview of the world economy today
- 4.2 Limitations of the current economic system
- 4.3 Critical Issues
 - 4.3.1 Poverty and deprivation
 - 4.3.2 Financial instability
 - 4.3.3 Unemployment
 - 4.3.4 Environmental threats
 - 4.3.5 Inequality
 - 4.3.6 Insecurity and social unrest
 - 4.3.7 Corruption and plutocracy
 - 4.3.8 Wealth, capital structure and uninvested money
- 4.4 The contribution of current theory to addressing these critical issues
- 4.5 The need for new theory that makes better sense of these issues

5 Evolution of the social sciences

This topic seeks to place the development of the social sciences in a larger historical context to illustrate the similarities and differences between the natural and social sciences, the nature of the laws and principles they seek to identify, the complexity of the challenges they face, the appropriateness of reliance on wholly objective methods of study, the level of maturation of knowledge in different fields, and related issues.

- 5.1 The evolution of mind, thinking and science past, present and future directions and its implications for the evolution of social science. Analytic, synthetic and integrated thinking.
- 5.2 The concept of society, social systems and social evolution
- 5.3 Social systems are far more complex than any physical systems, since they have to grapple with the behavior of conscious, individualized human beings. Therefore, it is not surprising that theories in the social sciences are more diversified in their premises and conclusions and consensus within disciplines is far less prevalent.
- 5.4 Integration between disciplines is also far more advanced in the physical sciences, than in the social sciences. Geologists, meteorologists, biologists and ecologists all base their work on the same underlying principles of Physics and Chemistry. Whereas each social

science functions in relative isolation from the others and bases itself on a different set of premises, e.g. the assumption of rational behavior affirmed by economists has long been discredited by psychologists and sociologists. The application of systems theory represents an important effort to identify common underlying principles for a partial integration of diverse social sciences.

- 5.5 All sciences undergo fundamental paradigm changes at critical points in their development, similar to the revolutionary paradigm changes in Physics following the development of Relativity and Quantum Theory in the 1930s and in Genetics after the discovery of the chromosome and DNA in the 1950s. However, in the natural sciences, reality itself is stable, whereas in the social sciences the underlying reality theory strives to describe is itself evolving rapidly.
- 5.6 Social science is purposeful not merely observational of reality. Social science must be value based. Economics must promote human dignity, human rights, human welfare and well-being. It cannot be, and is not in practice, value neutral.
- 5.7 Laws of society, including the principles of economy, are the outcome of human choice and imagination. They reflect human beliefs, perceptions, decisions, attitudes and values. The Newtonian conception of immutable economic laws ignores the obvious contribution of government, law, public policy, cultural values, prevailing social attitudes.
- 5.8 The attempt of the social sciences to emulate the objectivity and mathematical precision of the natural sciences resulted in a suppression and neglect of the subjection dimension of social reality which so powerfully determines conscious and subconscious human behavior. In an attempt to mimic the mathematical precision of the physical sciences, economics assumes that human economic behavior can be effectively described by objective universal laws, disregarding subjective perception, preference and conscious choice. There is overwhelming evidence to show that people's sentiments and decisions are not an artefact of economic laws, but rather the central determinant of how markets perform. Social science cannot ignore the subjective dimension of individual and collective behavior as the natural sciences have done.
- 5.9 While individual elements in the natural sciences closely conform to standardized characteristics. Molecules of the same compound, atoms of the same element, each type of subatomic particle, specific types of cells, organs, and species all behavior in near identical fashion. This enables the natural sciences to concentrate on generalized categorization of types, while largely ignoring individual differences. The same assumption cannot be made with respect to conscious individual human beings, who vary considerably in their response to similar conditions and environmental factors. Indeed, individuality plays a unique role in the development and evolution of social phenomena, which limits the applicability of generalized statements and statistical analysis. Social science must take cognizance of uniqueness as well as commonalty.

6 The Evolution of Economic Thought

This section will present a perspective on how economic thought has evolved over the past two centuries and the factors and circumstances compelling a reformulation of theory. It will include

an overview of the development of the main schools of economic thought and their major subschools. The essential similarities and differences between the major schools of thought will be examined in order to identify the full range of perspectives, assumptions and conditions on which different theories has be based.

- An evolutionary perspective on economic thought in the context of the evolution of global society tracing the changing conditions and perspectives through major transitions

 Mercantilism, Darwin's dismal science, the Industrial Revolution, the organization of labor, the industrial state, the revolution of rising expectations, the consumer society, the service economy, globalization, the Middle Class, rising inequality, and ecological limits.
- Neo-classical economists assume that the economy tends towards equilibrium and therefore 'interference' by institutions is inherently dysfunctional; whereas heterodox economists assume that the economy tends towards disequilibrium and therefore it is necessary to development institutions that intervene to counteract this tendency. The neo-classical school is rooted in Walrasian general equilibrium theory and the Austrian School led by Hayek. The Walrasian approach was integrated into the Keynesianism developed by Hicks, Samuelson, Solow and others that remained essentially neo-classical. Hayek's more radical thinking, promoted via the Mount Pelerin Society, gave rise to the Chicago School and the monetarists led by M. Friedman and others.
- 6.3 The heterodox schools (rooted in Ricardo, Smith, Say) comprises the radical Keynesians led by Kaldor, Robinson, etc who paved the way for the post-Keynesians (e.g Galbraith); the Marxists with people like Baran and Sweezy, Goodwin and Sherman; the French Regulation School (Aglietta) with its roots in Marxism and the works of Kalecki, the latter day institutionalists (some post-Keynesian, others rooted in the more Marxist regulation theory), the contemporary ecological and steady-state economists (Daly, Costanza), humanistic (Sismondi) and evolutionary economics (Kapp, Bromley).
- 6.4 Paradigmatic differences between mechanistic and evolutionary economic theories will be identified in order to exposé the underlying premises that circumscribe different conceptual frameworks.

7 Problems with contemporary economic theory

This topic presents a comprehensive analysis of contemporary economic theory to identify critical perspectives, assumptions, principles, methods, conclusions, strategies, policies and research findings that need to be reconsidered.

- 7.1 Four-fold divorce of economy, ecology and human welfare the widening gulf between economy, ecology, society and human welfare arising from current theory: divorce of financial markets from the real economy; divorce of employment from production and technological application; divorce of economy from ecology; and divorce of economy from governance, social stability, social welfare and human security
- 7.2 Current theory fails to adequately address vital social goals access to services and infrastructures to meet essential needs, economic security and welfare for all, true freedom of choice, equity and social justice, social stability and harmony.

- 7.3 Current theory regards growth as synonymous with rising levels of human welfare when it may actually be the very opposite.
- 7.4 Current theory does not adequately account for ecological limits or promote sustainable development.
- 7.5 Prevailing theory regards economic price as a proxy for the real value of transactions to human beings and human welfare.
- 7.6 Current theory disregards as externalities core factors for promoting human welfare. It fails to reflect the real impact of transactions on society and on the environment, such as the social costs of unemployment, pollution and climate change.
- 7.7 The narrow economic concept of efficiency ignores social implications and social costs of profit maximization. The efficiency of firms sought by replacement of workers with machines is not synonymous with the efficiency of society that is faced with rising levels of unemployment, welfare costs, crime and violence.
- 7.8 Economic theory does not match economic reality. The actual process of wealth creation does not conform to the simplistic notions of prevailing economic theory.
- 7.9 Mainstream economics is still modeled on 19th century scientific concepts relevant to local and national economies during the Industrial Revolution, disregarding fundamental changes in the principles governing the modern service economy.
- 7.10 Economic theory assumes that the pricing of resources at the cost of extraction reflects their real value to society or that extending intellectual property rights promote social justice.
- 7.11 Static equilibrium models are inadequate to describe rapidly evolving social processes that govern the generation of wealth and welfare.

8 Economic Measures

Transitioning to a new theory necessitates adoption of new measures and indicators that reflect the shift in objectives and in the way economic progress is evaluated. The necessity for adopting alternative measures, the criteria for selection and effective strategies for their adoption need to be discussed.

- 8.1 What is wrong with existing targets and measures for economic growth?
- 8.2 Problems of measurement:
 - 8.2.1 The question of the non-reducibility of different and incommensurate dimensions of performance in human organizations to a single, linear measure.
 - 8.2.2 Inappropriate comparisons between growth as a flow and wealth as a stock
 - 8.2.3 Difficulty of accounting for ecological externalities which cannot be reduced to monetary values.
 - 8.2.4 Difficulty of aggregated into a single figure aspects which are incommensurable.
 - 8.2.5 Assigning value to the future
- 8.3 The concept of negative value economic activity that consumes more than it produces

8.4 Alternative measures of economic development, sustainability and human welfare

Section 2: Core Elements of NET Theory and their Application

9 Trans-disciplinarity

This section examines the rationale for a new theory that is realistic, fundamental, comprehensive, inclusive and trans-disciplinary:

- 9.1 It is realist rather than instrumentalist, because it transcends disciplinary boundaries by including real-world dynamics regarded as externalities by most current economic theories.
- 9.2 It is founded on underlying principles and processes common to all human activity, rather than regarding the principles underlying economic activity as unique.
- 9.3 It assumes that markets tend towards disequilibrium rather than equilibrium, which is why institutions matter.
- 9.4 It is about production and abundance, rather than exchange and consumption.
- 9.5 It is about cooperation rather than individualism.
- 9.6 It is about an understanding of the economy as embedded within a wider socialecological system that provides resources and ecosystem services.

10 Human-centered Social Theory

This chapter examines the rationale for a shift in perspective from an emphasis on resources, production, finance, technology, and growth to a focus on the central role of human beings (human capital and social capital) as the primary driver and source of wealth creation and the social and psychological processes that underpin economic and other forms of social accomplishment. Themes that will be addressed include:

- importance of the contribution of human potential, resourcefulness and creativity to economic progress, terms which express its inherent elasticity and developmental capacity far better than the term human capital;
 - 10.1.1 the capacity of the human resource for growth, development and self-multiplication;
 - 10.1.2 it grows by the very process of expressing its capacities and giving them to others;
 - 10.1.3 unlike material resources, it is endowed with intricate and complex inter-relational, emotional and mental dimensions;
- 10.2 human beings as more than the mere beneficiaries of economic activity;
- 10.3 human beings as the most precious resource, but a resource that is perishable and diminishes when unused or left undeveloped;
- 10.4 economics is a science of networks of relations between people and institutions, which means that human interactions, through innovation, are the primary source of wealth creation;

- 10.5 there are not inherent limits to the development of human capital;
- 10.6 how something only becomes a resource when human beings recognize its value and discover a way to utilize it effectively, which means, therefore, that human capital is the ultimate source of all other forms of capital.
- 10.7 Technology and capital dominated economics in the 19th century when labor was considered a dispensable resource measured in horse power. In the modern service economy, the development of human capital and social institutions is the primary determinant of real development.

11 Principles and Perspective of NET

- 11.1 Goal of Economics: The goal of economy is not production or growth for its own sake, but sustainable human welfare for all. Economic growth is not an end in itself. Economic activity is intended to promote human security, welfare and well-being in a sustainable manner. The validity of economic theory must be evaluated in terms of its effective contribution to promoting these goals in practice.
- 11.2 Limitations of Existing Theory: Cumulative knowledge of economy has helped generate unprecedented prosperity during the past two centuries, but errors and limitations associated with prevailing theory are also a principal reason for the persistent poverty, financial instability, unemployment, inequality and ecological threats confronting the global economy today. The call for new economic theory is based on a realization that the existing theoretical framework is insufficient to address the challenges and opportunities of the 21st Century.
- 11.3 Laws of Economy are Human-made: Current economic theory is founded on deterministic principles and concepts common to the 19th century natural sciences. However, the economy is the emergent outcome of a wide range of human activities. The laws of economics are created by human beings based on human choice, not the result of immutable processes of nature to be discovered like the laws of Physics and Chemistry. Therefore they can be altered to work more effectively.
- 11.4 Need for Transdisciplinarity: Society is an integral whole. Problems arise from applying partial, compartmentalized piecemeal concepts and strategies that address problems in isolation from the wider social context. The arbitrary fragmentation of the social sciences limits their relevance and effectiveness in the real world. Economy, governance, society, culture, ecology and psychology are inseparable dimensions of a single whole and must be approached in their interrelationships, totality and integrality. A transdisciplinary approach is fundamental to formulating more coherent and effective economic theory and policies.
- Social Construction of Science: All social theory reflects social and cultural interpretations and constructions of reality by the scientist, but there has been a marked effort to disguise implicit constructions as impersonal objective knowledge. Economics and other social sciences must be recognized as value-based, rather than value-neutral. The goal is not just to understand how things work in physical nature, but to understand how we

- can build a better human society over time. The values that determine our conception of 'better' should be made an explicit component of economic theory.
- 11.6 Centrality of Human Capital: Economy is an activity of human beings. Human beings are the source of the energy, ideas, initiatives, organizations, skills, inventions and innovations that generate wealth. Economic science must be Human-centered. It must be founded on the pre-eminent role of Human Capital in wealth creation and promote the fullest development and opportunities for expression of human capacities.
- 11.7 Wealth-creation as a social process: Economics is a body of knowledge concerned with wealth creation. Wealth creation is one expression of a fundamental human process for conscious, goal-oriented accomplishment applicable to all fields and can best be understood by viewing it as a subset of the more general process that involves the generation, focusing, organization and expression of human energy to achieve results.
- 11.8 Awareness & Organization: Economic development and all other forms of social advancement can be described in terms of rising levels of conscious awareness leading to the constitution of more effective forms of social organization. Organization of material processes generates technological progress. Organization of social processes leads to the development of political, legal, economic and social institutions. Organization of mental processes leads to advances knowledge and education. Organization of psychological processes leads to the formulation of universal human rights and values. Organization of values fosters the emergence of formed individuals with greater capacity for knowledge discovery, comprehension, creativity, innovation, and entrepreneurship.
- 11.9 *Society is Evolving*: The principles governing society are evolving. Economics and economic thought need to evolve to keep pace with social evolution. The principles applicable to the economics of the Industrial Revolution are no longer sufficient for understanding and managing the emerging knowledge-based service economy.

12 Organizing Principles for Wealth Creation

Human relationships are the basis for social development, civilization and culture. Organization is the principal means by which individual members of society inter-relate, coordinate, cooperate and unite their efforts to enhance productivity and effective power. Social capital related to the capabilities of society to foster constructive institutional relationships between people. This topic will examine the fundamental characteristics of the process of social organization, which is the means by which human beings have evolved economically in the past and will continue to evolve in future.

- 12.1 Imitation of nature organization of agriculture
- 12.2 Connectivity the energizing role of human interaction
- 12.3 Exchange the enhancement of possibilities and incentives through mutually beneficial transactions
- 12.4 Energy, momentum, synergies and self-multiplying social energies issuing from cooperation, coordination and integration of activities
- 12.5 Division of labor and specialization of function

- 12.6 Markets organize and facilitate exchange
- 12.7 Money is a catalyst for exchange and medium for productive investment
- 12.8 Banking coordinates and facilitates savings, lending and investment
- 12.9 Technology is the organization of production according to mental principles that enhance productivity, quality, speed, design, service and other values
- 12.10 Transport expands and accelerates production, distribution and exchange
- 12.11 Communication is a catalyst for exchange, production, research and innovation
- 12.12 Law and governance provide the secure standardized framework of rights and responsibilities within which wealth creation takes place
- 12.13 Education and training is the organized transfer of knowledge and skills to enhance awareness, skills, productivity, innovation and creativity
- 12.14 Globalization of social networks expands the reach and intensity of transactions possible between individuals and firms
- 12.15 Organization of human rights raises the energy, productivity, innovation and creativity of the individual worker and citizen
- 12.16 Organization of human actions according to universal values generates a rich, fertile, productive social environment based on freedom, equality, reliability, trust, cooperation, harmony, integrity and human dignity
- 12.17 Leadership at the level of entrepreneurship, invention, discovery, organizational and technological innovation, and original thinking

13 Forms of Capital

In one sense all forms of capital are human inventions, since anything acquires productive value only when its potential is recognized by human beings. This topic examines different types of capital and stresses the creative role of human beings in identifying, organizing, utilizing and multiplying the productivity of all forms of capital.

- 13.1 Natural limited, non-renewable
- 13.2 Physical Infrastructure man-made
- 13.3 Human Capacities & Potential capable of unlimited development
- 13.4 Intellectual knowledge, science & information
- 13.5 Technological knowledge applied to facilitate physical processes
- 13.6 Social & Cultural institutions, networks, systems, standards, values
- 13.7 Political, legal and regulatory
- 13.8 Financial capital
- 13.9 Fictitious capital

14 Drivers of Economic Development

This topic presents a comprehensive view of the physical, social, cultural, mental and psychological factors which act as catalysts of economic development and wealth creation. The objective is a comprehensive view of the creative powers of society which contribute to economic performance so that all available social potential can be harnessed for sustainable human welfare.

- 14.1 Geography
- 14.2 Natural resources
- 14.3 Freedom, equality and democracy
- 14.4 Human dignity and human rights
- 14.5 Law and governance
- 14.6 Technology
- 14.7 Social organization
- 14.8 Leadership
- 14.9 Rising expectations
- 14.10 Education & Training and other means of developing human capital
- 14.11 Global integration
- 14.12 Demography

15 Money

The topic examines the essential nature of money as a catalyst for human activity, as a form of social organization and as a networking tool, the sources of its utility and power in society, its inter-convertibility into other forms of social power, and the potential ways in which money can be created and multiplied to promote socially desirable objectives.

- 15.1 Money as a networking tool like language based on trust
- 15.2 Forms of money and how they are created, including
 - 15.2.1 Commodity money
 - 15.2.2 Credit as money
 - 15.2.3 Fiat currency systems
 - 15.2.4 Digital currencies
 - 15.2.5 Complementary currencies
- 15.3 The origin and role of banking
- 15.4 Multiplying money
- 15.5 Subjective social foundations of money based on trust and confidence
- 15.6 Psychological dimensions of money and its tendency to dominate its creator
- 15.7 Interest & negative interest

- 15.8 Causes and impact of inflation and its role in development
- 15.9 Sovereign monetary systems, regional and global currencies

16 Financial Markets

This topic examines the positive role played by financial markets in economic history, the negative attributes and abuses it is subject to, the impact of the current functioning of financial markets on the global economy and human welfare, and the potential for more effectively regulating and harnessing these markets to promote the goals of human welfare ecological sustainability.

- 16.1 Origin and purpose of financial markets
- 16.2 Impact of financial speculation on economy and society
 - 16.2.1 Allocation and misallocation of financial resources
 - 16.2.2 Speculation and taxation
 - 16.2.3 High frequency computerized trading
 - 16.2.4 Proprietary trading
- 16.3 Financial market theory and practice
 - 16.3.1 Validity of the assumptions on which it is based
 - 16.3.2 Financial mathematics the predicative vs. determinative impact of mathematical models
 - 16.3.3 Structured products
 - 16.3.4 Behavioral finance challenges to rational choice
- 16.4 The global casino of unregulated financial transactions
 - 16.4.1 Managing global capital flows
- 16.5 The role of information exchange and its equitable management
- 16.6 Healing the divorce between financial markets and the real economy
- 16.7 Ethics and Finance
- 16.8 Financing global sustainable development

17 Markets & Regulation

This topic addresses the doctrinal debate regarding freedom and regulation of markets by examining the origin and development of markets and their impact on innovation, productivity and human welfare to arrive at a balanced perspective.

- 17.1 Markets, Capitalism and Business defined and distinguished
- 17.2 The myth of unregulated markets
- 17.3 Balancing initiative and innovation with equity and public good
- 17.4 Promoting entrepreneurship and business development
- 17.5 Globalization of trade

18 Management as a Social Science

This topic examines insights from the field of management science relevant to the formulation of new economic theory. Society is the macrocosm of economic and social potential. The individual is the microcosm. The subject of business management spans important middle ground between macro-economics and micro-economics that is normally omitted from the purview of compartmentalized economic theory. As an applied science, effective management theory must necessarily take cognizance of the relationship between business and society and the ways in which business addresses social needs, aspirations and potentials. At the same time, it must also evolve successful methods for releasing, developing and harnessing the energy and capabilities of individuals for productive purposes. While Economic theory may ignore social, political, cultural, psychological and ecological dimensions, coherent business theory and practice must necessarily take them into account and strive to integrate them with a larger framework.

- 18.1 The role of business in society
- 18.2 Purpose of business organizations and their evolution over time
- 18.3 Concept of economic democracy
- 18.4 The company as a child of society born of its needs and aspirations
- 18.5 Political dimensions of business strategy
- 18.6 Social and cultural impact on business
- 18.7 The creative role of the individual in business and economy
- 18.8 Towards a trans-disciplinary science of management

19 Entrepreneurship and Business Enterprises

Human economic initiative and innovation has been a driving force for economic development throughout history, but in the 20th century the size, scale of operation and impact of corporations has reached unprecedented levels, extending from the local and national level to the entire global. At the same time it has undergone significant changes in ownership and management. This topic examines the changing nature of the business enterprise, emerging trends and implications. It seeks to answer the question: Are there alternative models for private enterprise more conducive to promoting human welfare.

- 19.1 The historical role of different types of business organizations
- 19.2 Changes in the scale of commercial operations and their implications for corporate governance
- 19.3 Changing patterns of ownership and management and their implications
- 19.4 The influence of corporations on politics and public policy.
- 19.5 Corporate self-governance and socially responsibility
- 19.6 For benefit corporations the new capitalism
- 19.7 The evolution of business organizations self-management and other emerging forms
- 19.8 Alternative models such as employee owned, cooperative and for-benefit corporations

20 Political & Legal Foundations for Stable Sustainable Economy

Placing economy within a political and legal framework reveals the innumerable points at which tradition, culture, non-economic policies and the exercise of social and political power determine the functioning of the economic system. NET must make explicit the normative framework for decision-making and policy development. These include the following:

- 20.1 Human rights, with special reference to economic rights;
- 20.2 Legal basis for property rights and alternative conceptions
- 20.3 Protection of co-ownership of the commons
- 20.4 Role and regulation of technology development & application
- 20.5 Fair and just distribution of wealth and resources
- 20.6 Spatial integration of society at the local level
- 20.7 Protection and restoration of natural systems
- 20.8 Building of effective governance institutions across the public, private and non-profit sectors, including eradication of corruption.

21 Development & Evolution of Social Institutions

This topic examines the central role of social institutions – social capital – in the development and evolution of humanity, their predominate characteristics, the process by which they develop, the relationship between institutions and society, the subjective underpinnings of social structures, the values and cultural perspectives on which they are founded, their relationship to social power, the inherent obstacles to altering established institutions, and the evolutionary and revolutionary process by which they change.

- 21.1 Development of social institutions
- 21.2 Sources of institutional power and effectiveness
- 21.3 Institutional dynamics
- 21.4 Social institutions and social power
- 21.5 Institutional change and social evolution
- 21.6 Institutional crises
- 21.7 Informal & formal sectors of economy
- 21.8 Evolution of national institutions
- 21.9 Evolution of global institutions
- 21.10 Non-governmental sector

22 Economy and Society as Complex Systems

Economy and society are complex, inextricably interrelated and interlinked wholes which cannot be effectively dealt with as separate and independent spheres of reality. NET must

necessarily take into account the character of complex systems and its implications of theory and practice. Complexity in terms of composition, the large number of distinctions that must be made and the non-linearity of the relationships among system components. It is not sufficient to acknowledge complexity. Understanding complexity is to understand how the system responds to perturbations under the realization that the system will respond differently to the same stimulus depending on when are where in the system the stimulus is applied. The subject/predicate linear structure of language is not well suited to communicate understanding of complex a-causal systems. One of the challenges for NET is find methods for communicating understanding of complex systems that are historically bound in space and time.

- 22.1 Characteristics of complex systems
- 22.2 Theoretical implications
- 22.3 Practical implications
- 22.4 Modeling complex systems

Section 3: Global Economic Challenges

23 Overview of Global Economic Challenges

This and subsequent topics examine the critical economic and social challenges confronting humanity today related to achievement of the UN Millennium Development Goals, their relationship with current theory and policies, and the potential for addressing them more effectively through a new framework. It will review these challenges and identify the underlying economic processes that reproduce these challenges and undermine the potential solutions, including the financialization of the global economy, the changing nature of governance that has resulted in weak nation-states relative to the power of global corporations and globalized financial systems, the role of major multi-lateral institutions like the World Bank, IMF, OECD and the various UN agencies, and the implications of the rise of the BRICs economies.

- 23.1 Food for All (Topic 22)
- 23.2 Poverty (Topic 23)
- 23.3 Full Employment (Topic 24)
- 23.4 Inequality and social equity (Topic 25)
- 23.5 Demography population growth, migration and aging (Topic 26)
- 23.6 Urbanization (Topic 27)
- 23.7 Peace & Security (Topic 28)
- 23.8 Sustainable Resource Use and Rematerialization (Topic 29)
- 23.9 Capital formation, capital structure and uninvested funds (Topic 30)

24 Food for all

No economic issue is more fundamental or important than ensuring sufficient production and distribution of healthy food to achieve global food security and to meet the nutrition needs of all human beings. This topic examines the problems and possibilities related to food production, distribution and consumption at the national and global level.

- 24.1 Evolving structure and operation of the globalized food system
- 24.2 Changing nature of agricultural economies in the global North and South
- 24.3 Demography, food production and unequal distribution of food
- 24.4 Global food consumption and waste systems
- 24.5 Food quality and health
- 24.6 Rise of agro-ecological food systems, including large-scale production, local food economies and restorative farming methods
- 24.7 Productive potential of global agriculture and future demand for limited land resources
- 24.8 National food security policies and systems, with special reference to urban food systems
- 24.9 Rise and impact of local, national and global social movements (e.g. proliferation of farmer's markets, organic farming movements in the global South and North, landless movements in Latin America, etc)
- 24.10 Global food security, global initiatives and the potential for transforming the global food system

25 Persistent Poverty

Poverty is a multidimensional phenomenon related to access to resources and credit, ownership of land and other assets, dominant modes of capital accumulation, productive skills and education, social and cultural factors, legal and political factors, and ecology. Thus the theoretical remedy must consider the underlying transdisciplinary principles that govern development with respect to each of these factors and comprehensive strategies to effectively address them all. The following themes will be addressed:

- 25.1 Defining poverty and development
- 25.2 Historical perspective on the origins of poverty and the changing nature of the strategies to reduce/eradicate poverty
- 25.3 Political economy of global poverty, 1950-2015
- 25.4 Barriers to overcoming poverty developmental perspective
- 25.5 Social mobility and pathways from poverty
- 25.6 Linkages between poverty, malnutrition and education
- 25.7 The legal and political foundations of poverty
- 25.8 The role of education and training in development strategies to eradicate poverty
- 25.9 Access to productive assets and financial resources, with special reference to land, capital and ecosystem services

26 Employment

In a market economy, employment is the economic equivalent of the right to vote in a democracy. It is the power of economic franchise. A market economy that does not ensure job opportunities for all who seek them must be inherently unstable and subject to high rates of illness, crime and social unrest. Conventional economics lacks a true theory of employment. This topic examines the rationale and historical evidence regarding the widespread belief that demography, globalization and technological innovation must necessarily result in increasing rates of unemployment. It presents a social theory of employment and policies that can effectively achieve full employment.

- 26.1 Historical overview of employment
- 26.2 Transformation of work during the 19th and 20th century and implications of the 21st century 'machine age'
- 26.3 Theories of job creation
- 26.4 The relationship between employment and technological adaptation
- 26.5 The relationship between employment and trade
- 26.6 The role of employment in a market economy
- 26.7 Employment as a fundamental human right
- 26.8 Policy options for full employment
- 26.9 Alternative ways to ensure economic security basic income schemes
- 26.10 Modeling global employment
- 26.11 The future of work

27 Inequality & Social Equity

This topic examines the trends, factors and forces impacting on social inequality, the theoretical position of a human-centered theory on widening inequality, the rationale and means for narrowing the gap.

- 27.1 Origin and sources of economic inequality
- 27.2 Inbuilt mechanisms reinforcing inequality
- 27.3 Impact of inequality on health, lifespan, education, social stability, cultural harmony, ecology, migration and quality of life
- 27.4 Impact health, lifespan, education, migration, political and social stability, cultural differences, and ecology on inequality
- 27.5 The role of inequality as catalyst for social innovation and progress
- 27.6 The potential impact of reducing inequality on overall economic performance
- 27.7 The opposition to inequality

28 Demography - population growth, migration and aging

Massive demographic transitions are underway in the world, with major implications for future economic development. The populations in most developed economies are aging and declining. Those, like the USA, that have allowed in-migration from other countries have managed to retain a relatively young labour force to underpin the consumption driver of growth, whereas Japan has restricted in-migration and suffers the consequences of low demand and stagnant growth. The fast population growth rates are in Africa, with the African population now standing at over 1 billion. As the world grows from the current 7billion to 9.5 billion by 2050, the expected additional 2 billion will be in Asia and Africa. Whereas many developed economies face the challenge of aging, Africa faces the challenge of a youth bulge – potentially a major economic catalyst. Superimposed on these demographic dynamics is the global process of migration driven by many factors, including conflict (1.5 – 2 billion people live in 'failed states' often beset by conflicts), natural disasters, poverty and ethnic conflict. This topic will address the economic implications of these various demographic trends, with special reference to what it will mean to relax controls over migration coupled to commitments to full employment and poverty eradication.

- 28.1 Demographic trends by region and level of development and their Implications
- 28.2 Challenges of extended life expectancy
- 28.3 Challenges of emigration and Immigration
- 28.4 Implications for labor requirements, full employment and social security
- 28.5 Impact on poverty eradication
- 28.6 Impact on ecology

29 Urbanization

Over 50% of the global population of 7 billion now lives in cities, with one in three urbanites living in slums. If assumptions about fertility rates hold true, in the next four decades the urban population is expected to double to 7 billion, whereas it took 400 years for it to reach the present size. If the next 2.5 billion people are expected to be living in Africa and Asia, it also needs to be recognized that the rural populations in these regions are not expected to grow. By 2050 an additional 2.5 billion people will need to be accommodated in existing and new cities in Africa and Asia. Furthermore, the growth in the size of the middle class – the key drivers of consumption-inducing economic growth – by between 2 and 3 billion will take place in the global South, in particular Asia and Africa, and also to some extent Latin America. This is the flip side of the growth in slums, set to increase from about 1 billion today to 2 billion by 2050. An estimated \$40 trillion in investment will be required to provide the infrastructure for a doubling of the size of the world's cities over the next 20 years and to rehabilitate and replace infrastructure in the cities of the global North, especially those that are climate compatible and resource efficient. Together this expenditure is equivalent to around 20% of current global financial resources. In short, urbanization is going to be a major driver of consumption, but this will depend on upfront long-term capital investments in infrastructure and the associated establishment of the governance structures needed to manage ongoing operations and maintenance over time. This topic will focus on why it is vitally important to focus attention on

the design of economically functional, equitable, accessible and resource efficient low-carbon cities.

- 29.1 The role of the city in human development
- 29.2 Historical overview of the process of urbanization and its driving forces
- 29.3 Social and economic challenges posed by increasing urbanization
- 29.4 Ecological challenges posed by increasing urbanization
- 29.5 The future of the city design, function, access and sustainability

30 Peace and Human Security

Human well-being and, indeed, the protecting and thriving of nature, is dependent on a state of peace and security. This fundamental truth underlies the University Declaration of Human Rights and the UN Charter. However, neo-liberal globalization, driven by the financialisation through debt of national economies, has resulted in a world characterized by rising conflict and insecurity. Although the number of formal wars between nations has declined in recent decades, intra-urban conflict has risen dramatically as the global population has become majority urban and as economic production and knowledge has become overwhelmingly concentrated in cities. Between 1.5 and 2 billion people now live in what are defined as 'fragile states', i.e. states that lack the basic capacity to ensure peace and security for their populations. The spread and decline of conflict (including wars) is correlated with poverty, unemployment and debt. This topic will demonstrate the economic causes of the current state of local, national and global instability, and why an inclusive human-centered economy is required to underpin a durable and lasting state of peace and security.

- 30.1 Comprehensive conception of human security
- 30.2 Dimensions of human security
- 30.3 Relationship between violence, conflict and poverty
- 30.4 Interdependence of peace, governance, social stability and human security
- 30.5 The elements of economic security as a subset of human security
- 30.6 The role of the state in ensuring security
- 30.7 The costs and benefits of security peace as social capital

31 Capital formation, capital structure and uninvested funds

One of the greatest challenges the world faces today is the massive concentration of capital in the hands of an elite comprising 1% of the total population. A substantial proportion of these funds are off-shored in tax-free havens where they are managed by fund managers who pursue short-term low risk investments that do little more than just protect the wealth for the benefit of the few rather than get invested to drive wealth creation for the majority by making long-term higher risk investments. Elites in rapidly developing emerging economies in the global South are concentrating and protecting their wealth in similar ways. Using Thomas Picketty's seminal text entitled *Capital in the 21st Century*, this topic will reveal the global financial structures and processes that make wealth concentration possible and how in the past this

problem has been resolved (usually through wars). The result is the build-up of massive stocks of uninvested funds in a world dominated by in-debted states and ravished by poverty. This topic will show that shift in theoretical emphasis from financial capital to human capital is essential for maximizing human welfare. It will examine alternative strategies, such as sovereign funds (e.g. Norway's SWF), ethical banks like Triodos, the re-emergence of public banking institutions, various policy initiatives to de-financialize the global economy, and the rise of ethical venture capital and social impact investors.

- 31.1 Historical overview of the role of capital in different stages of economic development
- 31.2 Historical overview of the development and distribution of capital in society
- 31.3 Factors determining the distribution and concentration of capital in society
- 31.4 Factors determining the distribution and concentration of capital in societyImplications of increasing concentration of wealth and under-utilized capital on economic, political and social development and human welfare
- 31.5 Wealth redistribution
 - 31.5.1 Minimum guaranteed income
- 31.6 Strategies and policies

32 Sustainable Resource Use and Rematerialization

Global economic growth has to date been premised on the assumption that the planet can provide unlimited resources and absorb unlimited wastes. For the century ending in 2002, the real prices of natural resources steadily declined reinforcing this myth. Since 2002 resource prices have steadily risen in ways never been seen before. Even the current levelling off does not alter the fact that rising resource prices are inevitable if global economic growth ignores the need for resource efficiency and shifting away from carbon-intensive energy. While wastes have increased from 300 000 tonnes per day in 1900 to 3 million tonnes per day in 2000, average costs since 1985 have tended to rise by about \$2 per tonner per year. Despite rising costs, peak waste is not expected to happen this century. The quality of key non-renewable natural resources like oil and metals are declining, thus pushing up costs, and key renewable ecosystem services (e.g. fisheries, pollination, water, soils) are being over-exploited and face collapse thus negatively impacting the lives of around 2 billion people who depend on these ecosystem services. This topic will address the need to develop infrastructures and economic systems that are resource efficient and low carbon. This rematerialization of the global economy will not simply be about consuming less, but more about consuming differently so that all waste outputs become inputs, and all virgin inputs are used sparingly and in ways that repair sources of extraction (in the case of non-renewables) and restore and protect ecosystems (in the case of renewables). Specific attention will be given to the following:

- 32.1 nexus of agriculture, land use, water consumption, climate and biodiversity risks
- 32.2 energy supplies and renewable energy systems
- 32.3 global water resources, future demand and the challenge of water efficiency
- 32.4 global metal and mineral resources, future demand and the challenge of remanufacturing
- 32.5 protection and restoration of ecosystem services (e.g. soils, fisheries, pollination)

Section 4: Evolution of economy

33 National level economic theories and models in a global economy

Economics evolved originally as an instrument for national level policy formation and it continues to focus primarily on the nation-state. This topic examines the need for development of global theory and models that reflect the complex interrelationship and interdependencies in the global economy today.

- 33.1 National level models are inadequate to describe an increasingly globalized economy, e.g. employment at the national level is now subject to dozens of factors beyond control by national level economic policy measures.
- 33.2 National level policy must be supplemented by global modeling, coordination, institutions for governance.
- 33.3 Insights from recent European experimentation with regional economic policy and monetary union

34 Knowledge-based Service Economy

An implicit assumption of current theory is that the principles of economy applicable to the industrial economy are equally relevant to the knowledge-based service economy. This topic examines fundamental differences that impact on the measurement of value, the time during which transactions take place, the notion of what constitutes a transaction, the tendency towards zero marginal costs, and other issues.

- 34.1 How the modern economy fundamentally differs from the old industrial model
- 34.2 Economics of large service systems such as education and healthcare
- 34.3 Utilization time and the problem of value in service based industries
- 34.4 Management of risk and uncertainty

35 Public Sector and Public Goods

New theory needs to clarify the boundary lines between private and public goods and their relevance to public policy.

- 35.1 Political Economy concerns the functioning and relationship between the private and public sectors, which are inseparable, overlapping, interdependent and complementary spheres of economy.
- 35.2 Economic theory needs to reflect the fact that today the public sector represents a major source of economic activity and employment, accounting for between 25 and 50% of total expenditure and revenue in most OECD countries.

- 35.3 The concept of Public Goods and its relevance to management of the physical and social commons
- 35.4 The tragedy of the commons
- 35.5 The potentiality of the commons
- 35.6 Management of public goods
- 35.7 Management of the natural resources
- 35.8 Management of the global commons

Section 5: Boundaries of economy

36 The non-monetarized sector

Human welfare results both from monetarized economic transactions as well as those which do not involve monetary exchange. Current economic theory applies to only monetarized transactions, ignoring the large non-monetarized household sector and the provision of other essential goods and services without the use of money. Policy, social organization and technology can have a significant impact on the shifting line between these two sectors. Rising costs for child care, paid household services, bottled water, and environmental remediation reflect the monetarization of activities that once resided in the non-monetarized sector.

- 36.1 Human activities that conventional economic theory omits and ignores, especially the household sector.
- The constant interchange between monetarized and non-monetarized sectors and the distorting impact of this interchange on measures of economic progress.
- 36.3 The care economy self-supply, core family care & extended family care, societal care in the voluntary sector,
- 36.4 The problem of assigning value to essential and precious non-monetarized activities.
- 36.5 The future of the non-monetarized sector, with special reference to the sharing and cooperative economy.

37 Interdependence between Economy and Social Power

Crucial to the understanding of economy is the relationship between the functioning of the economic sector and the exercise of social power by money, political influence and other factors. NET theory must make explicit the impact of various forms of social power on the laws, institutions, public policies and private practices impacting economic activities and human welfare.

37.1 All economics is really Political Economy, as the study of the economics of states was originally termed. Economics cannot be divorced or considered separately from politics. The functioning of economy is powerfully influenced by the exercise of political power and social influence and vice versa.

- 37.2 Social power is the capacity to accomplish work in society. Money, political influence, popularity, media research, transport, communication, knowledge, research capacity are all forms of social power which are inter-convertible.
- 37.3 The interrelationship between political and economic power is of particular relevance to the functioning of economies because it results in a skewing of policies in favor of some parties to the detriment of others and the general public, leading to monopolistic advantages and public corruption. Democracy today contains a large measure of plutocracy.
- 37.4 Property rights, subsidies, tax rates, incentives, zoning laws, patent and copyright, corruption and crime are all strongly influenced by the exercise of social power.
- 37.5 The debate regarding free markets and regulation is not a scientific debate but rather a struggle for power money power and political influence vs. power to promote social welfare.
- 37.6 The rise and impact of social movements at the local, national and global levels
- 37.7 Human rights, law and public policy are powerful determinates of the distribution of social power and therefore of economic benefits.

Section 6: Towards a human-centered theory and practice

38 Economic Goals for the Future

Economic theory must be goal oriented and evaluated in terms of its effectiveness in meeting social goals. The UN SDGs provide a comprehensive framework. This topic examines ket performance goals related to the global economy, the prospects for achieving them based on existing theory and practice, and the need for radical change in economic theory and practice.

- 38.1 World economy that meets the need of all human beings for material and social security
- 38.2 Eradication of poverty
- 38.3 Full employment world economy the potential, the means, viable and sustainable alternatives.
- 38.4 Economic and social equity
- 38.5 Building local bio-economic regions through local markets, local currencies, cooperatives, ecovillages and other modes of social solidarity, inclusion and sustainable living
- 38.6 Sustainable world economy and planetary ecosystem

39 Public Policy for Sustainable Development

The topic examines critical policy levers that can powerfully impact the fulfillment of global economic goals in the future.

- 39.1 Human economic rights
- 39.2 Ownership, pricing and taxation of resources

- 39.3 Taxation of labor, capital gains, and financial transactions
- 39.4 Liability, pricing and taxation of pollutants

40 Principles of Sustainable Economy

The topic examines principles and practices consistent with promotion of economic welfare of all humanity in a sustainable manner that protects the ecosystem.

41 The process of Transition to a New Paradigm in Economy

How does society evolve and transit from one paradigm to the next? What are the factors that govern the speed of transition? What tools are available to accelerate the movement? This topic presents the process of social evolution and examines possible steps that can be taken to hasten the transition to a far more prosperous, equitable and sustainable global economy.

- 41.1 The process of social evolution
 - 41.1.1 Ways in which economy, society and ecology are evolving and the impact of evolutionary changes resulting from globalization, technological development, dematerialization
 - 41.1.2 The growing importance of networking and knowledge based services, and the changing boundaries between public and private goods
 - 41.1.3 Changes in economic theory that are needed to respond and adapt to these broader evolutionary trends.
 - 41.1.4 Mechanistic representations are inadequate to describe evolutionary processes, as well as any process of qualitative change, novelty, incommensurability, thresholds and bifurcations, circular and cumulative causation, etc. Thus, the need for an evolution paradigm of economic theories
 - 41.1.5 Factors that accelerate and retard social change
- 41.2 Reflections on important paradigm changes of the past
- 41.3 Transition Theory
 - 41.3.1 Transition theory reveals the major industrial transitions that have taken place since the start of the industrial revolution, as well as the major socio-metabolic transitions that have taken place since the last ice age 13000 years ago
 - 41.3.2 Framework for understanding the current poly-crisis and the need for a transition to a more sustainable, inclusive long-term development cycle
 - 41.3.3 How changes in economic theory are needed to respond and adapt to these broader evolutionary and transitionary trends -- not just another industrial transition, but an industrial transition that is driven by the dynamics of a socio-metabolic transition to more sustainable modes of production and consumption
- 41.4 Short list of critical measures for a rapid, effective transition

42 Towards Human-Centered Theory of Economy and Society

This topic reviews the basic premises of new economy theory and examines further steps that can be taken to deepen the research, clarify the theoretical formulation, improve the presentation, broaden the global public and policy debate, test hypotheses, and establish alternative models.

- 42.1 The vision of global potentials and pathways to realize them
- 42.2 The need for effective measurement and how it can be met
- 42.3 Testable hypotheses of NET
- 42.4 Viable strategies that have already proved effective
- 42.5 Comprehensive, integrated models to test-drive alternative approaches