# International Symposium on Regenerative Ecosystems

# 29th - 30th November 2022

# **CALL FOR PAPERS & CASES**



Centre for Sustainable Ecological Systems Xavier Institute of Management XIM University, Bhubaneswar

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### Important Dates (to be completed by):

Submission of Abstract: Acceptance notification of Abstract: Submission of Full Paper/Case: Acceptance notification of Full paper/Case: Registration by Participants: All submissions and queries to be sent to:

30th May 2022 30th June 2022 30th August 2022 30th September 2022 30th October 2022 cses@xim.edu.in

### **Registration Fee:**

Research Paper/Case Paper: USD 100 Guest (without a paper/case): USD 150 (*This fee shall cover 3 dinners, 2 lunches, & 2 breakfast, tea/coffee, symposium kit, etc.*)

### Accommodation:

In addition to on campus Guest House, there are several accommodation facilities including hotels within 2 KM from the venue of the Symposium. Registered participants can book their accommodation as per their requirement.

### The Context:

Uncertainties, vulnerabilities, and inequalities have been a growing phenomenon across all sectors and geographies. The design processes in most ecosystems whether it is natural, indigenous, rural, urban, or industrial tend to be gradually degenerating despite the best of human efforts. The existing literature on practices, policies & theories to halt or reverse these degenerative processes may broadly be seen from the three dominant frameworks, viz., Circular Economy, Social & Solidarity Economy, and Ecological Economics.

**Circular Economy Framework:** Circular Economy has been in discussion for over two decades, and there has been a growing interest in the application of the concepts and principles of *Circular Economy in different ecosystems*.<sup>1 ii iii iv</sup> The EU has an elaborate policy on Circular Economy.<sup>vi vii</sup> Mass and Energy Transfer Balances<sup>viii ix</sup> in secondary and tertiary activities have been at the heart of studies in circular economy. SDG Compass<sup>x</sup> is one of the least challenging tasks for large linear specialized value chain production-based corporations to align its value chain to meet a few of the indicators of the SDGs.

**Social & Solidarity Economy Framework:** The Social and Solidarity Economy (SSE) evolved as a counter to the capital and technology intensive features of the mainstream economy and focused on community participation and ownership in enterprises/cooperatives.<sup>xiv xv xvi xvii xvii xxii</sup> Social Entrepreneurship as part of this field of study focused on the purpose of the enterprise being the people and not the external financial investors.<sup>xxiiixxiv</sup>

**Ecological Economics Framework:** There have been increasing numbers of arguments on the limitation of the traditional TCA approaches of Oliver Williamson, Ronald Coase, and others. Douglas North<sup>xxv</sup> and Ghosal<sup>xxvi</sup> are a couple of these critiques to investigate. Recognizing the limits to Transaction Cost Analysis (TCA) in the mainstream economics, there has been a growing interest in ecological economics. Ecological economics <sup>xxvii</sup> xxviii xxii xxx</sup> is built on the increasing understanding that economics is embedded in the broader ecosystem that supports all human activity and hence economic analysis needs to be renewed to this new holistic understanding of the need for balance between artificiality in human and the nature.

The first, Circular Economy focuses largely on the circularity of material movements through reuse, recycle and reduce techniques. The second, Solidarity Economy focuses on building trust, fraternity and sharing among the members of a community to build solidarity. The third, Ecological Economics attempts to revamp the current economic logic from an ecological time span and seek balance between humans and nature. While the first is focused on Economics, the second is focused on Social and the third is focused on Ecology.

The above International Symposium aims to bring together the existing sustainability frameworks from **design factors of interconnected sub-systems and overall systems science paradigm** to facilitate **Regenerative Systems** in the context of specific ecosystems, viz., (a) Natural Ecosystem, (b) Indigenous Ecosystem, (c) Rural Ecosystem, (d) Urban Ecosystem, and (e) Industrial Ecosystem.

### **Multi-disciplinary Themes in an Ecosystem Context**

The symposium invites (a) research papers on the following multi-disciplinary interconnected themes viz., Relationships, Institutions, Primary Production, Secondary Production, Tertiary Production, Organization, Governance, and Ecology in the context of specific ecosystems and their regenerative capacities and (b) cases, stories, or demonstration of regenerative ecosystems in natural, indigenous, rural, urban, and industrial settings with two or more of the above themes. The interconnections and interdependence of the above eight themes in the context of an Ecosystem may be visualized as below.

# **Interlocked Dimensions in an Ecosystem**



All Interacting Evolving Systems Science (AIESS) Perspective Source: Amar KJR Nayak, October 28, 2016

Ecology	Natural	Resources	Human	Systems	Climate	Changes	Diversity of	Species	State of	Ecosystems	
Governance	• Erequency of	Interactions	<ul> <li>Decision-Making</li> </ul>	Method	Problem Solving	Approach	o Resource	Dependency	o Governance	Architecture	
Organizations	o <b>Size</b>	<ul> <li>Scope of</li> </ul>	Activities	<ul> <li>Ownership</li> </ul>	o Diversity of	Human	Actors	<ul> <li>Management</li> </ul>	Hierarchy		
Tertiary Sector	o Machinery &	Raw	Material	o Coordination	System	o Process	lechnology	• Diversity of	Cultures	o Local	Networks
Secondary Production	o Raw material	<ul> <li>Coordination</li> </ul>	System	<ul> <li>Product</li> </ul>	Technology	<ul> <li>Diversity of</li> </ul>	Human	Actors	o Physical	Infrastructure	
Primary Production	o Water	o Soil	o Seed-	Plant-	Animal	genes	o Farm	Diversity	o Farm	Forestry	
Institutions	o Norms &	Conventions	o Rules &	Regulation	o Principles of	Justice	o Interaction	Intensity	o External	Institutional	Loading
Relationships	o Sense of	Interdependence	o Notion of	Wellbeing	o Mental	Construct	o Morals & Values	o Faith & Belief			
Tracks					Topics						

sciences, ecology, environmental & forest systems, material sciences, social sciences, economics, theology, philosophy, and other fields that proposes to Please Note: In addition to the above topics, any topic related to engineering, technology, artificial intelligence, cybernetics, physical sciences, natural develop a paper or a case from design factors and systems science paradigm in the context of any regenerative ecosystem viz., natural, indigenous, rural, urban, or industrial ecosystems are welcome for submission.

# Tracks & Topics of the Symposium

While the eight dimensions/theme/tracks are generally perceived as linear to each other; these dimensions and most importantly, the factors (topics) relating to each of these dimensions (at micro-level) seems to be interconnected and interdependent. The eight dimensions<sup>xxxi</sup> are accordingly shown in concentric circles as interlocked dimensions in an ecosystem.

*Relationships:* The key factors of study and interventions on Relationship<sup>XXXII</sup> XXXII XXXII can include sense of interdependence, notion of wellbeing, mental construct, morals and values and faith and belief. The five factors of the relationship dimension address relationships at different levels. Faith and belief are at the core of an individual. Morals and values are an outcome of relationships at a family level, Mental construct is an outcome of our education, training, and experience. The notion of wellbeing is the overall societal orientation towards what is perceived as capital and wealth. A sense of interdependence is an outcome of the relationship with neighbours and in one's small community, other life and matter in one's ecosystem.

The nature and state of relationships often shape the sustainability of our endeavour in building institutions, production systems, organisational designs, community governance, and ecology where we live in. The nature and depth of Relationships seem to have been at the core of human engagements and our endeavour towards sustainability. Could these relationships be aligned with the ecological principles for inter-generational sustainability?

*Institutions:* This includes both formal institutions and informal institutions. Accordingly, institutions <sup>xxxvii</sup> are the norms, rules and conventions that regulate the functioning of an ecosystem. Deciphering the issue and factors of an institution has been one of the most challenging tasks. Increasingly there has been the realisation that without appropriate institutions, <sup>xxxviii</sup> sustainability can only be a distant dream. The key factors of this dimension can include norms and conventions, rules and regulations, principles of justice, interaction<sup>xi</sup> intensity and institutional loading.

*Primary Production:* Agriculture, the primary production activity is greatly being impacted by climate changes and has been increasingly becoming unsustainable across the world. This can include study of dynamic interactive process analyses among the key factors of production, viz., water, soil, seed-plant-animal genes, farm diversity, and farm ecology.

*Secondary Production:* Manufacturing and Processing industry is the most path dependent and has been the challenging area for transition. The dynamic interactive process analyses of the key factors of this sector can include raw materials, coordination system, product technology, diversity of human actors, and physical infrastructure. SDG Compass of the UNO is one of the relevant frameworks for analysis of this sector.

*Tertiary Production:* Service sector, the dominant sector of global economy covers this. The dynamic interactive process analyses can include the following key factors in value creation, viz., machinery & raw material, coordination system, process technology, diversity of cultures, and local networks. Transition towards Sustainability in this sector especially in banking and financial services, hospitality industry, and local transport have been most prominently observed.

**Organisation:** Organisations have been the key engines of economic growth in human enterprise systems. However, today's organisational designs especially in the secondary and tertiary sectors seem to greatly facilitate private financial capital creation as compared to social wealth creation in a society. Organisations both Producer Organisations (POs) and Industrial Organisations (IOs) can be the theme for study and analysis. Questions such as whether these organizations need to be designed wherein they can evolve to be community enterprise systems and not private enterprises may be investigated or analyzed.

The key design factors of organisations<sup>xli xlii xlii</sup> in general can include size, scope<sup>xiiv xliv xlvi</sup>, technology, ownership, and management. Size refers to the number of membership and geographical extent. Scope refers to the number and type of activities that an organisation can engage in. Technology refers to the process and product technology suitable for an organisation. Ownership refers to shareholding structure in the organisation and Management refers to management structure, type of managerial skills appropriate for an organization.

*Governance:* Governance has been an encompassing dimension in subsystems and systems of our society. It has therefore been an important component for sustainability of our community systems. The focus of study and analysis can be to identify factors and principles of governance that can facilitate sustainable community systems

at the lowest level of governance <sup>xlvii xlvii xlix</sup> that is at the Ward or Gram Panchayat level as well as at higher level of governance, viz., district, state, national, and global level. The key factors of study under governance can include frequency of interactions, decision-making method, problem solving approach, resource dependency and governance architecture and responsibilities.

*Ecology:* Ecology represents a basic comprehensive unit (habitat-ecosystem) of our planet that is driven by the fundamental principles of nature. Ecology includes all living (biotic) and non-living (abiotic) objects in each habitat. The natural principles of interconnection, interdependence and caring for the weakest are the principal axioms of a thriving ecosystem. For sustainability, the design and systems analysis of the other concentric and embedded layers of any ecosystem are determined by the above natural principles. The key factors of this dimension can include Changes (atmospheric), Renewability (of resources), Balance (of species), Compatibility (of human and natural systems), and Openness (in ecosystems).

### Matrix for Paper & Case Development

Scholars and Practitioners can consider the following matrix of ecosystems and themes to develop their research papers and cases. Analysis of any given ecosystem could include one or more of the thematic areas and the associated factors that facilitate either regenerative ecosystem or degenerative ecosystem.

Ecosystems &	Natural	Indigenous	Rural	Urban	Industrial
Multiple Themes	Ecosystem	Ecosystem	Ecosystem	Ecosystem	Ecosystem
Relationships					
Institutions					
Primary Production					
Secondary Production					
Tertiary Production					
Organization					
Governance					
Ecology					

The above framework for interconnections and interdependence among themes and matrix for research papers and case submissions is only suggestive. An indicate list of design factors or topics are also provided under the Tracks and Topics section. Scholars and practitioners are welcome to newer ways of visualizing Regenerative Ecosystems that are resilient to climate changes, market volatility and undue external loadings of governments on respective ecosystems.

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