

**INSEE 5TH BIENNIAL CONFERENCE  
President's Address  
by N.S. Jodha**

**Introduction**

Dear friends – distinguished guests and participants in the conference and members of INSEE. I feel honoured to share my views with you on EE as a promoter of new visions and processes to address the issues of societal and environmental sustainability. At the very outset, I may mention that I do not intend to deliver a scholarly lecture on the subject. Instead, I will dwell on some practical issues with which contributions and impacts of INSEE are closely linked. The presentation is a sort of summary of my observations and views on the subject largely in the developing country contexts, with primary focus on micro-level situations. Table 1 puts together the key issues discussed in the paper. The presentation is put under three broad sections, namely, (a) "A Time for EE" reflecting on emerging sustainability issues and EE's vision and work indicating its potential role in addressing them; (b) Challenges of the above task i.e. indicative gaps and imbalances constraining EE (or INSEE) contributions; and (c) Potential approaches for addressing the constraints.

**A. A Time for Ecological Economics**

In societal context often any idea/approach/paradigm flourishes and contributes most when its time comes. The latter is reflected through appropriate identification of problems (needs), potential-solutions and their search efforts. In other words, right stage of circumstantial contexts, and corresponding operational responses indicate the "right time" for an approach or intervention to be relevant and effective. This seems to characterize the present situation of Ecological Economics, in terms of types of tasks before it and approaches and methods EE promotes to address the tasks. This is partly indicated by increasingly wider recognition and use of EE visions and approaches, influencing the academic and policy discourse in different contexts and at different levels; and its perception as a potential source of integrated knowledge and remedial approaches to address the challenge of sustainability faced by present day society and its life support systems. Hence, it will not be wrong to say that "a time for EE" has come. This could be elaborated by referring to factors and circumstances contributing to it.

The most striking attribute of EE vision and work is its, visible departure from skewed perspectives and notions promoted by conventional neo-classical economics, where market driven processes shaped the patterns of nature-society interactions and the contributions and costs of environment/ecological services (as externalities) were deliberately ignored in the cost calculus of development activities. Thus, faced with or conditioned by objective realities of the time, EE by focusing on valuation and internalization of cost of ecological services, in a way reflects the lead lines of transition in thinking addressed to the current challenge of the society bridging i.e. sustainability and productivity.

In practical contexts EE through development and application of various valuation methods and procedures attempts to help decision makers to recognize and incorporate the cost of ecological/environmental services in development activities, the absence of which through disregard of environmental externalities, encouraged over-extraction and degradation of natural resources in the past. The importance of new vision and approach promoted by EE, is all the more important in the context of rapid economic globalization, which may promote profit driven selectivity and over-extraction of selected environmental resources, and in the process disintegrate the existing diversified but interlinked, ecosystem-driven activities and re-integrate

the selected (profitable) ones in to global system. The valuation approaches have helped in emotion free, effective advocacy of resource protection measures by conservationists.

"A time for EE" is a product of process, where demand side factors namely expectation from and usability (effectiveness) of research efforts and results from natural and social sciences have changed. Similarly on the supply side, namely approaches and range of outputs and their target areas focused by researchers have also been gradually changing. To elaborate on this first we comment on the demand side circumstances. Accordingly, the steps and pressures on the demand side, inducing changes in the type and nature of usable/desirable outputs, from researchers, generated by global/regional discourse, (beginning particularly with Earth-Summit in 1992 to its successors to date), are well known. The changes on supply side processes of changes though quite crucial are not so pronounced and high profile type. Some of them would be discussed later.

The demand side of changing perspective is illustrated by the mainstream development context. Accordingly, largely technology led productivity and perceived market determined efficiency, as drivers of development and prosperity are increasingly questioned. Environmental and human-well being imperatives of the conventional development models and the concerns about overall sustainability are increasingly emerging as major challenges to policy makers and researchers. Side by side the voices of groups pleading for the above concerns are getting louder and wider. And hence, the changed expectations about outputs from natural and social scientists. To this, one can add the complex and difficult to address, high profile, global sources of scare – e.g. global warming, widening gaps between supply and demand of fresh water, bio-diversity decline etc. which have further changed the complex of demand side of process.

On the supply side of change process i.e. shifts in approaches and work priorities of researchers, specially of EE, the following can be stated. Even when it builds upon the past knowledge and insights associated with different natural and social science subjects, it significantly differs in terms of central thrusts as well as methods and approaches to assess and address the emerging crises of nature-society interactions. This is indicated by development of a comprehensive and integrated framework to understand and address the dynamics of nature-society interactions and their consequences in terms of environmental as well as socio-economic sustainability. To facilitate this, EE accords primacy to inter-disciplinary approaches to work. The equally important feature of EE framework is recognition and legitimate space to human dimensions in the process of addressing the sustainability-productivity issues.

Viewed differently the above process reflect a gradual change in mind set of the researchers. Accordingly research groups represented by EE, despite persistent focus on their respective individual disciplines, are slowly learning that irrespective of the importance and position of their individual disciplines, the present challenges of sustainability are beyond the capacity of the individual disciplines to handle. Hence, inter-disciplinary approaches for understanding and addressing the problems is the need of the time. The consequence is, increasing trends towards collaborative, trans-disciplinary approaches to research and action, as symbolized by ecological economics as a discipline, and their platforms such as INSEE.

Equally important indicator of change in the mind set of researchers/practitioners, (as mentioned earlier) is the space accorded to human dimension or communities in their thinking about how to promote applications of their respective results. A few field level observations will illustrate this.

The ecologist (or environmental scientists) who saw the safety of nature (specially in developing country context) in resource protection through "nature reserves and protected areas", programmes ignoring human factor, added 'buffer zones' to the former, recognising and

incorporating people as an essential part of the protection process. Subsequently, they focused on "conservation" rather than "protection", where nature-society links were better recognized. The process was further extended by linking managed and unmanaged parts of the landscape covered by the same ecosystem, as under trans-boundary conservation projects and emphasis on decentralized community efforts rather than exclusively depending on state's legal and bureaucratic (policing) approaches to ensure protection and conservation. To further accommodate the changing nature-society interactions (driven by economic pressures of subsistence as well as market) the emphasis is placed on NTFPs, regulated use of endangered species control of pollution-promoting practices and eco-tourism. The natural science discourse also internalized the rationale of variables (e.g. folk agronomy etc.), historically placed under social sciences.

With subject specific differences, almost similar has been the story of social sciences, specially economics, the another complement of EE. For instance while studying the nature-society interactive processes, their past approach to community, the primary stakeholders directly involved in usage and management of natural resources, has been characterized by disregard and indifference. Economic principles and tools were applied to study and advise them, with little concern for their own perspectives and practices. They were again used as "objects" of studies and advice, rather than treated as partners in enquiries and evaluation of balanced use of natural resources.

However, now things are changing. As in the case of shifts in approaches of nature-conservation scientists, economists using EE approaches have been gradually alerted to the ground realities of communities' roles and perspectives in natural resource management, expressed through other social sciences such as anthropology, rural sociology etc. and the voices of community groups and civil society. The concrete expressions of the same would include advocacy and incorporation of decentralization, community participation and community empowerment initiatives and other issues such as livelihood security, environment poverty nexus, environmental rights and equity etc. In addition to use of the concepts and methods used by anthropology, geography etc., the role of community, indigenous knowledge systems in natural resource management is increasingly recognized by economists. The central thrust of this change includes: need for trans-disciplinary work/approach and involvement of local communities and their perspective in enhancing the change processes advocated and promoted by ecological economics.

To sum up the essence of the preceding discussion (Section I) is that its strong focus on ecosystem social system-complementarities; trans-disciplinary approach to research and development; sensitivity towards human dimensions of natural resource management; balancing of productivity, livelihood issues and sustainability concerns for nature, etc., the thrusts of EE are better matched with the multiple components of emerging crises and unsustainability of present pattern of resource use.

## **B. Challenges of Transition (Indicative Gaps and Imbalances)**

The above stated perceived indicators of match between emerging societal and environmental needs and EE-generated potential responses also carry of number of challenges for the discipline of EE. These challenges are rooted in the broad circumstances and factors historically shaping and guiding research and reward systems in both natural sciences and social sciences, specially in the developing countries. This could be elaborated with reference to specific elements of EE approach to address the environmental cum socio-economic problems of today. The primary contexts of below mentioned issues are largely micro-level situations obtaining in

rural areas and rural communities, which are important users or mis-users of ecological services/resources.

- (i) Through the efforts are on to make trans-disciplinarity of EE work a wide spread reality, at present, (despite new visions and stated methodologies), in practice individual disciplines' domination persists. To illustrate, look at the huge imbalances in membership of INSEE (in terms of disciplines), as well as in the focus of the present conference papers. Both the past training based ease and incentive structures promoting individual-disciplinary commitments of researchers, favour the this tendency. Consequently, the research processes, often do not go far beyond adding other discipline's names as prefixes or suffixes to connotes inter-disciplinarity. Collaborative work between different disciplines involving joint thinking and understanding of thrusts as well as strengths and weaknesses of each other often do not happen. At times exchange or poaching of terms from other disciplines is treated as inter-disciplinarity.
- (ii) Quite related to the above is another challenge, namely continued dominance of discourse/work involving EE by peer groups (senior scholars) or by a practice called "conversation between the converts" rather than mobilizing new, younger researcher for promoting the method and message of EE. This is revealed by composition of participants biased towards the seniors in the high profile meetings on EE issues. Partly it is unavoidable, in a relatively younger discipline, but spread of innovations by innovators themselves may not be an efficient way to mainstream EE or INSEE mandate.
- (iii) The realities reflected by (i) and (ii) above, represent the structural imbalance problem that perpetuates the historically determined fragmented learning boundaries, hierarchically fixed patterns of scholarships and disciplinary authority and traditional capacity building mechanisms including incentive systems. The solutions for this may call for injecting flexibilities or changing the established research framework and structures to build new capacities for inter-disciplinary work directed to create appropriate space for different disciplines and young scholars.
- (iv) Equally important imbalance-related problem is the skewed perceptions about who can lead to or contribute to understanding and solutions to sustainability problems addressed by EE. Both ecologist and economists still have the focus on top-down, prescriptive type of research and recommendation. No doubt instead of labs or class rooms, their empirical work is increasingly covering the comprehensive nature-society interactions in the field situations. But, here again, communities and their perspectives are studied as "objects of research" rather than insight-contributing partners in enquiries. Academics get the primacy over all other approaches to understanding and addressing sustainability and related EE issues. The same applies to the rating of different stakeholders where NGOs, community groups and even policy-programme practitioners at the field level vis-à-vis academics are given low status in promoting EE goals and approaches.
- (v) The gap between prestige and academic recognition/rewards accorded to workers engaged in (a) high profile environmental aspects and (b) low profile more immediately relevant and concrete aspects, of nature-society interactions and their consequences, is another aspect of imbalance. This could be illustrated by gaps in professional recognition to say, those unsuccessfully struggling to establish realistic regional patterns of future global warming and those (engaged in place based work) having succeeded in rehabilitating healthy environmental conditions in several watersheds. There are several reasons for the same, but this gap highlights the disregard of basic issue that the global

environmental problems ultimately have the place based roots as well as place-based doable remedies, which also require commitment of workers supported by due recognition.

Essence of the above discussion could be summed up as "process faults", in implementing new thrust/niche of EE due to persistence of old research culture and approaches with rather slow changes.

The purpose of the above comments is not to belittle the enthusiasm, efforts and impact (at least in some cases) of research and advisory work done by EE professional. Instead, the objective of the above is to high light some of the gaps and imbalances in our approaches or practices, which need to be addressed to ensure effective contributions of EE in ensuring dynamic and sustainable interactions between nature and society to ensure human well being without damaging the resource base. For doing so, organizations such as INSEE have to be developed as well focused movement rather than confine itself to "a society of learned scholars".

### **C. Elements of Potential Remedial Approaches**

Following the broad areas of remedial approaches indicated under Table 1, (col. 3) the major steps can be listed. This we put in the form of a self explanatory textual Table 2 without comments.

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**Table 1: A Preliminary Glance the Ecological Economics: Vision and Processes<sup>a)</sup>**

Indicative Distinctive Features (Vision and Thrust of EE)	Challenges: Visible Gaps, Imbalances	Elements of Potential Remedial Approaches
<p><b>1. Paradigm shift</b></p> <ul style="list-style-type: none"> <li>Focus on dynamic and sustainable nature – society interactions, their criteria and indicators to help informed policy/programme choices</li> <li>Valuation based recognition and use of environmental/ ecological resources and services; pricing of environmental externalities and inputs in making better informed, sustainability promoting decisions, bridging sustainability and productivity</li> <li>Visible departure from neo-classical mainstream economics (paradigms/ methods) and new focus on comprehensive, integrated improved framework to understand ecosystem-social system links and their change processes</li> </ul>	<p>Persistent and major gaps between conceptual break throughs and practical applications, "what to do" is clearer than "how to do" on the ground</p> <p>Same as above plus primacy to knowledge-based macro-modeling over micro-understanding, due to unchanged reward systems, impacts of past training</p> <p>Slow shift; obstacles due to conventional research and reward systems; measures to mainstream the new visions/processes almost non-existent</p>	<p>Effective involvement of and input from multiple disciplines in a process mode of working rather than largely consequence-focused research and advocacy</p> <p>Greater space to micro-level processes and their dynamics; recognition and reward for diversified placed-based "investigations"; involving user perspectives</p> <p>Essential changes and reorientation of research approaches and methods; developing this as a movement, involving different stakeholders; focus on concurrence of research and usage of generated results; complementing academic focus by non-academic (functional) focus, specially in micro-contexts</p>
<p><b>2. Processes</b></p> <ul style="list-style-type: none"> <li>Strong focus on empiricism and trans-disciplinary work (research, advocacy); application of natural science concepts to social sciences and vice versa; multiple stakeholder -involvement; linking of macro-micro perspectives and processes</li> <li>Understanding of interlinked natural and social processes shaping the pace and pattern of natural resource use and its changes and consequences</li> </ul>	<p>As yet greater focus on exchange of terms ("terminological poaching(!)") rather than collaborative working; domination of stronger (vocal disciplinary groups); domination of academics and peer groups; priorities, prestige associated with macro level modeling and discourse, characterize most of the work, "isolate and excel" approach still strong</p> <p>Continued lesser attention to integrated, multi-component processes due to problems of logistics, common platform and understanding</p>	<p>Needed changes in structural factors characterizing priorities, patterns and incentive systems governing research and recommendations; involvement of younger researcher and primacy to trans-disciplinary research by those having common concerns, need for strong networking as means to mainstreaming</p> <p>Same as above plus appropriate targeting and use of unconventional methods to capture dynamics of eco-system: social system interactions at different levels</p>
<p><b>3. Centrality of human factor</b></p> <ul style="list-style-type: none"> <li>Recognition of human dimension</li> <li>Sensitivity to livelihood, human well being</li> <li>Community level processes</li> <li>Recognition and use of indigenous knowledge systems</li> <li>Networking</li> <li>Pro-active advocacy, and policy focus</li> </ul>	<p>Focus on communities, their perspectives "as objects" of research rather than as collaborative partners to understand/internalize societal processes by researchers</p> <p>Insufficient networking</p>	<p>Treating communities and their knowledge systems not as object of research but direct contributors to understanding of EE issues</p> <p>Stronger networking with focus on solutions rather than problems only; sensitise corporate sector to environmental responsibilities</p>
<p><b>4. Bottom line:</b> A potentiality effective response to sustainability and human well being issues, linking sustainability-productivity</p>	<p>Strong on "what to do" weak on "how to do"; unaddressed imbalances/gaps</p>	<p>Rather than orienting EE work as subject for "Learned Societies", develop it as a movement involving diverse stakeholders</p>

a) Based on preliminary inferences from different studies of EE applications and field observations

**Table 2: Components of Indicative Approaches to address the Imbalances and Gaps in the Process of Implementing EE Visions a)**

Issues/Gaps	Indicative Remedial Options (Practical steps illustrations)
<p>A. Practical steps lagging far behind the conceptual advances in EE work; priority to academics over other aspects of application of EE including mainstreaming mechanisms</p>	<ol style="list-style-type: none"> <li>1. Simplification and application of EE concepts and learning to specific EE problems (e.g. green accounting applied to management of village commons, where user contributions are collected; carbon sequestering measurement of community forest as attempted in Uttaranchal; environmental service valuations, through contrasting better managed &amp; poorly managed watershed using mix of traditional and modern methods.</li> <li>2. Associating EE academic experts with identified NRM initiatives/community actions initiated by NGOs donors etc. for NR management; develop functionally mixed networking.</li> <li>3. Inclusion of "changes in natural resource conditions" as a yard-stick to assess/measure the development at project/village levels.</li> <li>4. Working with and learning from indigenous practices about NRM.</li> </ol>
<p>B. Weak trans-disciplinarity of research to look at EE issues; unequal space for different disciplines (domination of economics); preference for macro-aspects; lesser involvement of young researchers; peer group-run processes, continued preference to conventional approaches and reward systems; slightly better than earlier yet a marginal status of field centred micro-level workers</p>	<ol style="list-style-type: none"> <li>1. Identification, evolution of research framework using collaborative dialogue and project planning (e.g. as done under participatory project planning)</li> <li>2. Mutual learning and working of experts from different disciplines – as a jointly run process rather than acting in isolated manner</li> <li>3. Development of flexible methodological framework – beginning with bottom up understanding and verification</li> <li>4. Special initiatives to mobilize and train younger researchers through field study camps; their interactions with indigenous knowledge people; exclusively young researchers workshops including question – answer sessions with peers, special fellowships, best paper prizes, EE worker networks.</li> <li>5. Changes in recognition and reward systems in the research planning and implementation</li> <li>6. Evolve, try unconventional methods to understand nature-society interaction using rationale and form of traditional practices</li> <li>7. Mainstream EE, through inclusion in teaching curricula, with special focus on the non-premier educational institutions; build state support for mainstreaming EE research and education</li> </ol>
<p>C. Centrality of human dimension not deep enough as revealed by focus on individual rather than collective aspects of nature-society links; promotion of findings as researchers understand rather than how people perceive them; NGO and community workers treated as inferior assessor of knowledge of EE related issues.</p>	<ol style="list-style-type: none"> <li>1. Reduce the practice of simply over emphasizing use of terms with social connotation and focus on understanding of processes and practices underlying them</li> <li>2. Treat communities, indigenous groups as effective, informed partners rather than "object of research:</li> <li>3. Building community, NGO capacities to capture and analyse EE knowledge at micro-level, as needed by scholars.</li> <li>4. Jointly develop EE application-pilot areas as practical learning schools to promote EE applications</li> <li>5. Besides communities and field agencies, sensitise and involve corporate sector as stakeholder for mainstreaming EE and message of INSEE</li> </ol>

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(a) Based on observation in the field and inferences from some studies by EE experts

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<p><b>4. Bottom line:</b> A potentiality effective response to sustainability and human well being issues, linking sustainability-productivity</p>	<p>Strong on "what to do" weak on "how to do"; unaddressed imbalances/gaps</p>	<p>Rather than orienting EE work as subject for "Learned Societies", develop it as a movement involving diverse stakeholders</p>

a) Based on preliminary inferences from different studies of EE applications and field observations

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