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## **Sustain, nourish and improve our society**

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**Biographical note:** John Wang is a Full Professor at MSU. Having received a scholarship award, he came to the USA and completed his PhD in Operations Research from the Temple University. He has published more than 100 refereed papers and six books. He has also developed several computer software programs based on his research findings. He is the Editor-in-Chief of *Int. J. of Society Systems Science (IJSS)*. Also, he is the Editor of *Encyclopedia of Data Warehousing and Mining (4 Volumes)-2e*, *Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications (6 Volumes)*. His long-term research goal is on the synergy of operations research, data mining and social sciences.

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The impacts of society touch everyone's life. These impacts may be considerable, even critical. Societal problems, especially those which remain unchecked and unmanaged, can weaken, threaten or even eventually destroy our society. Production produces pollution; medication generates side-effects; pesticide causes poisoning; innovation can lead to unemployment. *IJSSoc* deals not only with the question of whether modern society should be sustainable, but also the ways in which this could and should come about. *IJSSoc* bases its vision on eight 'balances' as follows:

- a balance between economic development and environmental protection
- a balance between real aggregate demand and aggregate supply
- a balance between human beings and nature
- a balance between consumption and preservation
- a balance between material and spiritual pleasures
- a balance between civil liberty and self-restraint
- a balance between hedonism and practicality
- a balance between science and society.

Sustainability is usually associated with ecological and political economics, as well as social and economic development: the associated consequences on national and global levels and the related trade-off and compromises between social, environmental and economic benefits. Furthermore, 'Society Systems Science', as we have termed it, is the interface of natural science and social science, where both natural scientists and social

scientists confront the real-world problems and challenges that exist in our society, and work towards formulating effective solutions.

There are six interdisciplinary articles in this issue. From a resource dependence perspective, Xia et al. examine how the dependence of organisations on external stakeholders leads to the global diffusion of corporate environmental responsibility initiatives. They propose that the global diffusion of the ISO 14001 initiative is associated with three types of stakeholder pressure: environmental protection, media freedom and trade dependence. Empirical results based on panel analyses of 112 countries during the 1996–2005 period suggest that the resource dependence theory provides useful insights for better understanding organisation–stakeholder relations to predict the diffusion process.

Sangle's paper has two main objectives (i) to understand what organizational factors influence material consumption in industry and (ii) how to design EMS based on ISO 14001 in order to promote sustainable consumption in industry (demand side-in particular industrial processes).

The article in particular deals with an alternate way to design EMS which has a potential to make consumption of material in industry more sustainable. Sangle proposes a conceptual model for understanding industrial consumption practices. So far, literature on sustainable consumption focuses on domestic (individual) consumption. An effort is therefore made in this article to explain organisational factors influencing material consumption in industry. This is important because the industrial processes are as material intensive as products are. Earlier research on dematerialisation has focused primarily on products and there might be umpteen opportunities for dematerialisation of industrial processes. However, the principal contribution of this article is to help industry design EMS based on ISO 14001 to promote sustainable material consumption. The dematerialisation strategies in supply side (industry) have primarily focused on product design and development. This article proposes how dematerialisation concept can be applied to industrial processes with the help of EMS.

Qinglong, Lihong, Liang, and Huang focus on a special Local Collection Point (LCP) in green supply chains. "This special LCP has two channels to handle the used products: (i) the R-Channel: recovering them and reselling them in a local second-hand market, and (ii) the D-Channel: delivering them to the centralised returns centre directly.

Different ways to handle used products among the two channels will yield different revenue and bear different costs. In this article, the authors initiate and develop a joint inventory policy for such a bi-channel reverse system with the purpose of improving the system efficiency and effectiveness. By formulating the system into a continuous-time Markov chain, the stationary distribution for each state as well as the system profit formulation are obtained. An algorithm for optimal inventory policies is developed. Managerial implications of the system characters and policies are discussed through the article.

Lempert and Nguyen offer an easy-to-use indicator for measuring whether non-governmental organisations, international organisations, and government policies and projects meet the criteria for sustainable development that have been established by the Rio Declaration in 1992 and that are recognised by experts in the field. Use of this indicator reveals that most of the major actors in the field of development are actually failing to promote sustainable development and points to the specific areas where they need to improve in order to fulfil sustainability criteria. They also offer a sample test of the indicator using UNICEF as a case study. By the way, Dr Lempert is Author of several

books including, *A Model Development Plan*. Ms. Nguyen is an Environmental Policy Analyst who has worked for the UN, FFI and the Vietnamese government.

Metaphors indicated in the very title of Vuk Uskoković's contribution suggest their crucial importance in directing the human race towards the promised land of sustainability. He starts off with promoting industrial symbiosis as the major ideal of sustainability on the horizon, and continues with the need for quantitative-to-qualitative transitions in the design of ecofriendly chemical methods and technologies. Finally, arguments are presented to support the idea that pure analytical methodologies cannot result in perfectly reliable estimates of the effects of human actions on the sustainability of the ecological substrates. In addition to the tools of logic, he suggests, we should adopt benevolent intentions as our basic attitudes. Human actions are in his view comparable to rain-forest elephants that inconspicuously transfer tiny seeds of intentions across the forest floor and enable the propagation of larger plants.

Ghorpade, Lackritz and Singh examine the demographic antecedents and a psychological correlate, alienation, of Intrinsic Religious Orientation (IRO) in a lay sample in the USA. Their data show that IRO differs significantly across ethnicity, religious affiliation, and gender. IRO, in addition, is positively correlated with alienation. The authors conclude that IRO, a type of religious commitment that emphasises belief in God, serves as a form of psychological refuge from the tensions of society and provides a means of coping with its demand.

*IJSoc* aims to provide a professional forum for formulating, discussing and disseminating these solutions, which relate to the design, development, deployment, management, measurement and adjustment of these social networks. They should form a common ground on which a sustainable society can be built, shared, supported and improved by professionals from different disciplines. The universal goal of achieving peace, prosperity, and harmony in our society should go beyond disciplines, and ultimately be coordinated across different nationalities, cultures, races, and religions, and be sustainable.

*IJSoc* presents a forum to help policy makers, planners, researchers, educators, students, citizens and professionals exchange their innovative ideas and thought-provoking opinions. It also creates a communication channel between practitioners and academics to discuss problems, challenges and opportunities in all aspects of our society.

Please share your thoughts, work, and experiences here and right now. Please care about our footprint on this earth. Please prepare for the worst scenario of a new development. Please provide a safer, secure, and sustainable society for our children and future generations.

Together, let's celebrate the *birth* of *IJSoc*, nurture its *growth*, contribute to its *strength*, and protect its *health*.