Health of Human Populations and Associated Domestic Animals as a Component of the Integrated Coastal Zone Management Approach

Marie J Ducrotoy[1] and ***Jean-Paul Ducrotoy***[2]
[1]School of Biomedical Sciences, Division of Pathway Medicine, University of Edinburgh, Edinburgh, UK
[2]Institute of Estuarine and Coastal Studies, the University of Hull, Hull, UK

For three decades, Integrated Coastal Zone Management (ICZM) has been instrumental in promoting interdisciplinary studies, considering managerial issues through tentative common approaches between biologists, sociologists and, rather recently, economists. Even if for ecologists it seemed rather obvious to include the human dimension into the approach, it is only rather recently that the human dimension has been fully adopted by ICZM. Managers have finally realised that value networksgoverning human exchanges are inevitably at the root of how ecosystems are used and evolve under the influence of humans, hence highlighting the dominating influence of profitability and socioeconomic factors for political agendas.

On the one hand, the scientific debate, based on an eco-systemic ("systemic" as in "systemic approach"...) approach needs to be promoted, reviving fostered awareness, based on a robust scientific approach (both theoretical and practical) of complex systems where quantitative and qualitative linkages can be demonstrated from a molecular to a population level. On the other hand, such systemic interactions have to be placed in a context influenced by resources, governance, end-users and stakeholders in a given social, economic and political setting.

The prioritisation of human "well-being" might be a good way to focus on pressures and impacts inflicted to ecosystems, emphasising the ensuing suboptimal health of 'natural systems', including human and animal life in existence within these systems. Therefore, the eco-ecosystemic approach requires understanding of, firstly, social, political, economic and, secondly, ecological structures and functions fundamental to health care provision for growing populations of humans and livestock and other domestic animals. Ecology stands out as a key component to understanding the instrumental factors to decision-making bottlenecks and to identify weaknesses in the socio-economic system. The disparity in environmental 'health' on the planet is reflected by the strong divide between developing and industrialised countries. And this is a growing phenomenon. Crises are looming with regards to the use of natural resources (biological and mineral) and, in particular, water and associated health challenges. There may be a case for turning the problem on its head and for environmental scientists to consider the issues from the human health and food production perspectives. An eco-systemic approach to health and "well-being" should help in managing goods and services to a society which relies on functions realised by ecosystems.

Contact Information: Jean-Paul Ducrotoy, Institute of Estuarine and Coastal Studies, the University of Hull, Cottingham Road, Hull HU6 7RX, United Kingdom, Phone: +33 (0)322 238 074, Email: j-p.duc@wanadoo.fr