

Public, Animal, and Environmental Aquaculture Health Issues

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This book attempts to describe the aquaculture business in a broader, global perspective or, as the editors put it, using 'a holistic approach'. The book's focus is on aquaculture as a provider of produce for human consumption with concentration upon issues of public, animal and environmental health as conveyed by the title. Considering the complexity of the task, the general impression is that the subject is well covered and with a good organization of material.

The book contains six chapters, the first chapter: Status of World Fisheries and the Role of Aquaculture, providing a brief overview of world fisheries statistics and a short breakdown of world aquaculture production based on FAO statistics. It summarizes important issues associated with further development of global aquaculture that have been thematic for many scientific meetings on sustainable aquaculture in recent years (e.g., Stickney and McVey 2002, Baird et al. 1996, Reinertsen et al. 1995), and serves as an introduction to the remaining chapters.

Chapters 2 and 3 take their theme from the book title, separating the discussion from the viewpoint of non-industrialized and industrialized countries respectively. As the former chapter draws upon information generated in industrialized countries and since the latter's introduction discusses topics equally relevant to aquaculture management in non-industrialized countries (and vice versa in Chapter 2), this division seems rather artificial and the material in the two chapters has been repeated to

some extent. A look at the content page also shows the similarity in topics and categorization of health issues. Admittedly, in those categories the species and substances causing concern diverge, but this is probably more a consequence of differences in climatic and habitat environments as well as local practices. Furthermore, the general message from the book is the need for central planning and international consensus in addressing such issues in a similar manner. It is the actual application of a given concept that is bound to vary between nations and even locations, and it is here the major differences and challenges will appear (briefly mentioned in the conclusion in Chapter 4), also due to traditional, cultural and developmental differences. Therefore, a perhaps more interesting treatment of the subject would have been an investigation of the three major farming systems, extensive, semi-intensive and intensive in context with their public, animal and environmental issues, or vice versa, since the key point is the dependence on and interaction with the surroundings (broadly speaking) of these systems and their potential for control in various settings.

A short Chapter 4 introduces the HACCP concept as a superior inspection system to traditional end-product assessments as a means of assuring consumer safety. An overview of its current implementation in aquaculture is provided. The broadening of the HACCP concept from its original purpose to encompass control of aquatic animal diseases is discussed and an extension of the concept to manage aquaculture sites recommended. The interested reader should consult other sources for the actual content and methods of application of the concept in aquaculture, to which the reference list may serve as a starting point.

Chapter 5 deals with international organizations that provide guidelines and systems to regulate international trade, acquire consumer protection, and develop sustainable aquaculture. I found the overviews of the organizations having an impact on global aquaculture development, the importance of such bodies to serve as forums for global development of aquaculture, and as depositories of knowledge to be highly informative.

The final chapter summarizes the issues discussed earlier and provides the six indicators for future growth of global aquaculture listed by FAO. Consideration is also given to emerging obstacles to future expansion of the aquaculture industry; e.g., consumer acceptance of GMO's and ethical issues concerning use of animal protein as a feed source.

At first glance, this book seems to address itself to those involved in management and, in particular, risk assessment of aquaculture on a strategic level, e.g., managers, policy makers, public authorities, etc., but everybody with an interest in public, animal or environmental impact of aquaculture in a (global) community may benefit from viewing or relating their activities in such a perspective. For this purpose, the book is recommended as it provides coverage of the numerous and important issues within its topic in a systematic and comprehensible manner. Sections might have benefited with greater discussion upon how to cope with those same issues. The book illustrates very well the complexity of the aquaculture industry in a global setting and may serve as supplementary text or background information for students on a general introductory aquaculture or aquaculture management course. As the text is more descriptive than analytic, it does not provide answers, but may well assist in generating a checklist of issues that are or may be imposed on the industry. In-depth information on individual topics must be sought elsewhere, to which the references, and in particular those to publications from international organizations, given at the end of each chapter may prove useful.