



## Book review:

Caprara, A., Oliveira Lima, J. W., Rocha Peixoto, A. C. (2013). *Ecossáude: uma abordagem eco-bio-social. Percursos convergentes no encontro de dengue*. Fortaleza: Editora da Universidade Estadual do Ceara.

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The focus of this book is one of common interest of many countries in tropical and subtropical regions: finding alternatives to control the spread of Dengue fever. The alert of the epidemic of Zika virus (spread by the same mosquito that is responsible for Dengue fever and Chikungunya virus), disseminated by the World Health Organization (WHO) for Latin American countries at the beginning of 2016, made the content of this book of renewed importance for all who work in public health planning.

The editors, all researchers at the State University of Ceará (UECE) in Fortaleza, Northeastern Brazil, have brought together scientists from all over the world and different disciplines to systematize and present the experience of the ultimate decades with eco-health interventions, particularly with the complex approach of the control of vector-borne diseases. The book shows a broad vision of new approaches and methodological procedures to understand life realities and create projects and policies of prevention of different vector-borne diseases using Dengue fever as an example. Its main goal is that the presented content is incorporated in the programs of the control of vector-borne diseases and within the education of professionals from different disciplines. The book summarizes then the worldwide growing worries about the impact of human activities onto environment and offers the possibility to look holistically on topics which affect both humans and environment.

The development of the eco-health approach started in 1978 in the Region of the Great Lakes of North America, where alternatives for the improvement of the administration of the eco-system of the region were needed. This development is shown in detail in the introduction. The action of joining the fields of ecology and health was innovative in those times and was a new perspective for further development of the region. The developments in

public health, with the important role of the WHO conference in Ottawa in 1986, contributed to strengthening the approach to understand health as an intersectoral topic that needed a holistic analysis of contexts and structures. The wave of interest went from America's North to the South and found innovative and dedicated partners throughout Latin American and Caribbean countries. Eco-health is nowadays a short term for the eco-systemic focus on health and is used, in between others, by public health institution to analyze health conditions and plan then interventions to create or strengthen a healthy environment for a certain population.

This new field developed further with research, education and practices through distinct historic and epistemological roots. The concept of eco-health is characterized by six big principles: the *systemic approach* considers a health problem intertwined in a network of ecologic, socio-cultural, economic and political dimensions. The *trans-disciplinary approach* is considered the integration of different types of knowledge rather than only the presence of researchers from different areas. The *social participation* considers the engagement of representatives of the communities as well as all whose livelihoods are affected. *Sustainability* reflects about the relevance to protect the ecosystem that is a precondition for human health through all processes of development. *Social and gender equality* recognizes that differences in economic, age and sex within the members of societies reflect the relations with the ecosystem. Finally, *the knowledge for action* means to transform the acquired knowledge into concrete actions for health programs, involving different sectors, stakeholders and being able to influence new politics during the process (see pp. 25-26). It rather needs strategies that bring together different stakeholders and knowledge and the affected population to create alternatives and solutions.

The book is organized in six parts with one to four sub chapters each and an introduction from the authors. Asia and the Americas are the geographical areas where research was and still is carried out to concretely improve people's health. Researchers work together throughout borders to develop strategies to apply a holistic approach to prevention and treatment of vector-borne diseases. The first part named "Eco-health, an eco-bio-social-approach" consists of three texts: the first one explains the theoretical background of the concept as well as the created network and the community practices from the Americas (pp. 41-54, by Passos et al.); the second one presents a multi-centered research project about ecosystems and communities in urban and periurban areas in Asia (pp. 55-71, by Sommerfeld and Kroeger); and third one, where a systematic review of studies of factors associated with the transmission of Dengue fever in relation to the eco-health perspective is presented (pp. 71-92, by Motta et al.).

In the second part, denominated "Complexity", Pamplona de Góes Calvacanti (pp. 93-110) shows a short history of the combat of the so-called "Dengue mosquito" worldwide and

focuses then on Brazil to summarize the development of programs for vector control, including some critiques.

Part three is entitled "Equity and gender" and presents the article from Calvasina Gondim, Oliveira Lima and Caprara (pp. 111-132) about socio-environmental inequalities, how gender relations play a fundamental role in negotiating Dengue fever control in the Northeast of Brazil. The presented case study, realized in Fortaleza (capital of the State of Ceará, Northeastern Brazil) in a poor living area where approximately 450 households are located, shows social-environmental injustices in relation to gender issues and high incidence of Dengue fever.

Part four is called "Sustainability" and includes two texts: Cerbini and Monteiro Vasconcelos Motta (pp. 133-150) present general findings about waste and waste management and use as an example to show it's relation with the risk of Dengue fever. It demonstrates how society's knowledge about what happens with its garbage is still very low and how waste management is one of the key factors for the prevention of the disease, especially in areas with poor living conditions. Pessoa Santana and Rocha Peixoto show results of their research with so called "Dengue agents" in the Brazilian city of Fortaleza, which control homes for risky areas and have key role in the control system of the disease. The importance of education in the process of prevention and elimination of risky areas or behavior to avoid the mosquito's spread is appointed as one of the main challenges. They demonstrate the need for public health policy makers to work closely together with those who execute laws and policies within the communities.

The fifth part is called "Intersectoriality" and presents Lacerda Miranda and Rocha Peixoto's text which is a theoretical introduction about stakeholders. It summarizes the results from their exploratory and descriptive study about stakeholders related to Dengue fever control in the city of Fortaleza through qualitative interviews. Their analysis shows the different roles of public institutions involved in Dengue control. It is worth to mention the conclusion which may be applied to many places in the world: that the improvement of the public sanitary system and urbanization process control may influence strongly the fight against Dengue and offers new possibilities to intervene early.

The sixth and final part is denominated "Interdisciplinary formation and eco-health" and consists of two texts: Castelo Branco Mendes presents a new curriculum of graduation of a bachelor study in Interdisciplinary Health, which was developed at the Federal University of Bahia (UFBA) and merges the trans-disciplinary approach mentioned as a principal of eco-health. Finally, Álvarez Fontenele et al. give an insight into the possibilities and challenges of including interdisciplinary research into the medical education at the University of the State of Ceará (UECE) in Fortaleza.

Overall, it can be summarized that the book gives an interesting insight into international and trans-disciplinary organization of the vector-borne disease Dengue fever and shows how science, politics and communities may work together –with a holistic view- to improve living conditions for people and create a disease free environment.