

Book Review

Confronting the Climatic Challenge

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Jose Villarin, SJ, ed. 2001. *Disturbing Climate*. Quezon City: Ateneo De Manila, Office of Environmental Management & the US Agency for International Development (USAID), 202 pp.

Jose Villarin's edited book *Disturbing Climate* uncovers a "time bomb" beneath a treacherous global environment that threatens to explode if left unnoticed. It sets off an alarm in the Philippine setting in its attempt to unfold the expanse of problems secondary to climate change then silences it through a documentation of responses to address the upsetting global concern.

Villarin's book is a collection of essays that are a blend of science and policy. These 16 astutely written essays engage readers in technical, albeit timely discussions of what can

happen if global climate change remains untrammelled. The pages are replete with diagrams and pictures to facilitate understanding but, pragmatically scarce in space-consuming explanations of scientific phenomena. Most of these essays are basically written by specialists who must have assumed they have as their captive audience only those who are scientifically-inclined. However, if the book is read in its entirety, technical questions will not remain unanswered. The chapters tend to complement one another and provide synergy that strengthens the messages that are imparted by the book: the interconnectedness of the problems of global warming, rising sea and coral bleaching and how they adversely affect water and agricultural resources and pose threats to the public; the appropriate but, insufficient political and legal responses at

the national, regional and global levels; and the potential and untapped capabilities of the country to address the said global issue.

Although the book has no major subdivisions, the essays are organized in a logical fashion that enables us to classify them under four parts. The first part of the book sets the tone by orienting the readers to the different dimensions of the oft-overlooked issue of global change. Jose Villarín begins by familiarizing the readers with the issue of "Endangered Climate". Herewith, a discussion of the "greenhouse effect" and the positive and negative effects of atmospheric gases ensues. How the global temperature increases with intensifying concentration of greenhouse gases (GHGS) like water vapor, carbon dioxide (CO₂), chlorofluorocarbons (CFCs) and how this "global fever" affects the sea level and marine habitat and well-being are the issues confronted by Rosa Perez' essay entitled "Responding to the Challenges of the Rising Sea" and the essay authored by the research team of Hazel Arceo, et.al. entitled "Coral Bleaching in the Philippines". The readers may feel a sense of hopelessness when they encounter Villarín's gloomy forecast that even if GHGS emission mitigation targets are complied with, the effort "may not be substantial at all to arrest the progressive degradation of the global climate." Nevertheless, Villarín probably believes it is better not to give false hope especially since he is trying to send an alarming message. But this can also be interpreted as a sign of surrender which may cause undue stress to the readers.

The climate change problem is more complex than it appears to be and the succeeding essays show why it should be addressed. The next few pages can very well comprise the second part of the book as they touch on the urgency of the climate change issue by expressing its impacts and effects on water resources, agriculture and public health. Climate change (CC) and its impacts on our two main sources of sustenance are the major points raised by Nathaniel Cruz' "CC Impacts on Water Resources", Rhoda Lantín's "Philippine Agriculture in a Changing Climate" and Lourdes Tibig's "Responding to the Threats of CC to Philippine Agriculture". Cruz discusses how CC affects water supply and demand and how this change results in various adaptation strategies. Lantín links CC to the quality and quantity of agricultural yields. She

prefers embarking on adaptation strategies to controlling the GHGS emissions as a more significant response to the impacts of CC. On the other hand, Tibig explains how the El Niño phenomenon (drought) leads to decrease in rice yield while the La Niña phenomenon (continuous rainfall) can impact negatively on corn yield. Tibig also provides a number of response strategies. These chapters give an alternative view of the CC problem by showing how it poses challenges to the water and agriculture sectors and how these sectors become more compelled to respond and adapt to these challenges. The amazing thing is that these responses and adaptation strategies sound as natural as "knee-jerk" reactions. These "reflex" reactions are: the alternative management of existing water supply; water treatment and recycling for major water users, agricultural management practices such as natural rainfall management (water impounding dams, flexible irrigation facilities); composting of rice straw and use of short-season cultivars. Another chapter that can very well be included under a discussion of CC and its impacts is the essay of Jonathan David Flavier and his research team entitled, "CC and Public Health in the Philippines". This essay jolts the readers to further listen to the complexity of the CC problem by claiming that changes in the climate also disturb the well-being of the people. Flavier et.al. discuss the range of factors affecting health and state that these factors include climate change. These authors explain clearly and diagrammatically the different direct and indirect ways by which climate change can affect human health. Direct health effects of CC include, among others, heat-related illnesses while malaria, cholera and asthma are among those that are indirectly caused by changes in the climate. Aside from asthma, shellfish poisoning is another non-infectious health problem that can result indirectly from climate change.

After having drawn a pessimistic scenario at the beginning, the mood shifts to a more positive note toward the middle of the book. If the first few chapters interlock readers coming from the natural sciences, the succeeding pages will ignite the interest in the social scientists amongst us. The next set of essays contains numerous national as well as global efforts to address the CC issue. These essays include Ma. Cecilia Dalupan's "Policy and Legal Responses to the Challenges of CC", Antonio La Viña's "North and South, States and Communities: Reflection on the

Global CC Negotiations", Bernaditas Muller's "*Philippine Policymaking and the UNFCCC*" and Reuben E.T. Quejas' "*Philippine Policies and Programs on New and Renewable Energy*". At this point, the readers are introduced to an array of enabling policies made possible by global institutions such as the United Nations Framework Convention on Climate Change (UNFCCC) and its member-States that also forge cooperation within them in order to make policies that address this global concern. Dalupan's essay informs the readers about how serious the world is in finding out ways to solve or mitigate the CC problem and the Philippine's share in trying to address this issue. The UNFCCC's ultimate objective is to stabilize GHGS concentrations in the atmosphere. This global institution encourages its member-States to take up this "common but differentiated responsibilities" in line with the vision of sustainable development.

In the essay written by La Viña, the North-South perspective that he describes as "statist" is criticized and why he thinks it does not help in solving the problem of climate change. This author does not call for a rejection of this paradigm but asserts the need to rethink it in a way that "historical baggage of the past is put aside." This is a practical approach to the CC problem though it may be difficult to separate the issue from the North-South paradigm since significant GHGS emission that led to climate change historically takes root in this basic geo-political and economic differences. La Viña also discusses the ineffectiveness of a more centralized approach and maintains the usefulness of community-based strategies in controlling environment degradation directly related to climate change.

Muller's essay, complements La Viña's perspective since it recognizes the "common but differentiated responsibilities" of the different UNFCCC member-States. A discussion of Philippine policies and programs that encourage the discovery and use of alternative sources of energy or New and Renewable Energy is the focus of Quejas' essay. These alternative sources of energy may require more than political will especially since a shift to the use of these energy sources also involves a change in Filipino ways and preferences.

From a discussion of enabling policies the last set of essays dwelled on mostly local specific initiatives that also address the CC global concern. Pamela Gallares-Opus' essay entitled "*Local Climate Action: Fine-Tuning Local Mindsets*" discusses the importance of having the Local Government Code of 1991 (R.A. 7160), which in itself is "enabling" enough. According to this author, "policy-wise, the Philippine local governments are equipped towards climate action but much has to be done in terms of actual performance". In spite of this recognized gap between policy and action, she cites several local government practices that tend to mitigate traffic congestion and emission of potential air pollutants in the atmosphere, such as: the color-coding scheme in Metro Manila, the carless oval in UP during Sundays, "pedestrianization" in Makati, high parking fees, putting up biking paths in Marikina, among others.

Gemma Narisma's "Counting Greenhouse Gases in Local Communities" tackles the three main sources of GHG emissions namely: the electric power consumption, transport, and; residential and commercial use of fuel. This essay places importance on a more proactive role of local communities in making an inventory of and "watching out" for these major sources of GHGS. Mariano and Estoque and M. Sta. Maria attempt to relate urbanization to the rainfall phenomenon in their essay entitled, "*The Urban Modification of Climate in Metro Manila*". So that readers will not totally forget about the importance of tree planting and conservation of forestry, the book includes a chapter on their importance through the essay of Rodel Lasco and Florencia Pulhin. These authors stick to an effective yet more conservative approach to the climate change problem through land use change and forestry (LUCF) in their essay, "*LUCF in the Philippines: CC Impacts and Mitigation Potential*". For indeed, we have yet to see a stricter and fuller implementation of traditional programs, such as, proper land use, rehabilitation of degraded areas, replantation and reforestation. The last essay titled "*Remote Sensing/GIS for CC Impacts and Mitigation Potential*" is written by May Celine Vicente et. al.. It basically stresses the importance of utilizing satellite images and other technologies of remote sensing in order to identify and monitor "areas of vulnerabilities", flood and drought events that will enable us to adapt effectively to the CC problem.

That some environmental problems are naturally caused is evident but that humans (anthropogenic stressors) aggravate them too cannot be overemphasized. The growing literature on the effects of climate change is a positive sign of increasing interest to address the global issue though making a difference in this effort is not always an easy task. This book not only informs but, demands attention that it rightfully deserves. It is in this vein, that Villarin and all the other authors should be commended because they left this particular reader obsessed with taking up the quixotic challenge. 🌱