

PREFACE

Global sea level rise (SLR), attributed to global warming can cause huge impacts onto coastal human settlements.

In 1999, Building Research Institute, Ministry of Construction in Japan conducted a Feasibility Study, sponsored by Environmental Agency, on “Global Environmental Impact Study of Urban Development and Housing Construction in Indonesia”, in co-operation with Indonesian Research Institute for Human Settlements. The research sought to clarify the methodology and feasibility to evaluate both (1) Contribution of Urban Development and Housing Construction in developing countries onto Global Warming, and (2) Impact of Global Warming onto Coastal Urban Area. Although the approach is entirely different, several components of methodology are becoming clear to be common to both themes, and applicable/useful in developing countries, where secondary data is very limited.

Based on this feasibility study, one sub-theme on Coastal Urban Area, in the integrated research project of, “*B-12 Studies on Comprehensive Assessment of Impacts of Sea-Level Rise and Adaptation*”, *Global Environmental Research Fund, provided by Ministry of Environment(2000-2002)*, was undertaken.

As a field of case study, Indonesia contains various types of cities and building typologies. Therefore, if successful, the methodology tested is hoped to be applicable to many other cities in Asia-Pacific region. Secondly, the country has very long sea coast line, more than 80,000km long, with huge coastal population. Therefore, large impact of SLR can occur. However, the basic reliable data to evaluate the impact is very limited. If some research can open the door to start this approach, then the wide blank area in the world-map of vulnerability will be filled.

In 2001, Building Research Institute was re-organized and the research was handed over to newly established National Institute for Land and Infrastructure Management (NILIM), Ministry of Land, Infrastructure and Transport.

The applied methods were classified into two categories. One is “microscopic approach”, mainly based on field surveys on site, undertaken by Indonesian team organized under the “Research Institute for Human Settlements”(RIHS) between 1999-2002. This team undertook fact-finding and measurement/questionnaire survey in various coastal cities in Indonesia. Another is “macroscopic approach”, undertaken directly by NILIM. This approach was mainly elaborated on GIS, based on high-resolution satellite image and geographical map provided by BAKOSURTANAL (National Geographical Survey Institute of Indonesia). The both results were combined to evaluate the total impact of SLR onto a city, and to discuss about adaptation applicable. Through these years, 4 seminar/workshops were held in Bandung, in order to report the results from these two different approaches, and also to discuss about the future adaptation strategies, inviting experts of geography, coastal engineers and city planners.

This book mainly reports the basic data as result of fact-finding survey, measurement in the field and analysis of macro data on GIS. The research undertaken also covered adaptation issues, and it was also discussed in the seminars/workshops. However, this is more related to social-cultural factors, and need further discussions. We are going to propose and undertake further research activities for discussing the adaptation issues in more realistic figures that can be a basis for future action in the framework of international co-operation.

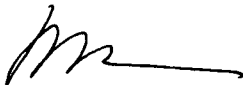
PREFACE BY INDONESIAN DIRECTOR

Cooperation work has been made between National Institute for Land and Infrastructure Management, Ministry of Land, Infrastructure and Transport – Japan and Research Institute for Human Settlements, Ministry of Settlements and Regional Infrastructure – Indonesia concerning study of Global Environmental Impact Study of Urban Development and Housing Construction in Indonesia. The study carried out in Indonesia is started from 2000 and planned to be finished on 2003.

This activity is the third stage from the four stages of the above study. The current theme is Loss Measurement of Houses on Physical and Socio-economical Aspects. Data supporting the study is collected from 7 (seven) cities covering Jakarta, Semarang, Surabaya, Denpasar, Mataram, Banjarmasin, and Makassar and.

This final report consists of Introduction, Fact Finding, Analysis, Conclusion and Recommendation and Appendixes. It is hoped that this report is meaningful for related studies.

Director,
Research Institute for Human Settlements



Ir. Aim Abdurachim Idris, MSc.