

**Megacity Research Project TP. Ho Chi Minh**  
**Integrative Urban and Environmental Planning Framework**  
**Adaptation to Climate Change**



**Roundtable on  
Climate Change & Urban Design**

BTU Cottbus  
Dept. of Urban Planning and Spatial Design  
July 20, 2010

**Outcome**

## Roundtable on Climate Change & Urban Design Urban Design Guidelines to Respond to Climate Change

Tuesday, July 20, 2010; 2 pm – 5 pm

**Brandenburg University of Technology Cottbus  
Department of Urban Planning and Spatial Design**

Seminar Room B1.16  
Konrad-Wachsmann-Allee 4  
Cottbus/ Germany

### Contact

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**[www.tu-cottbus.de/megacity-hcmc/](http://www.tu-cottbus.de/megacity-hcmc/)  
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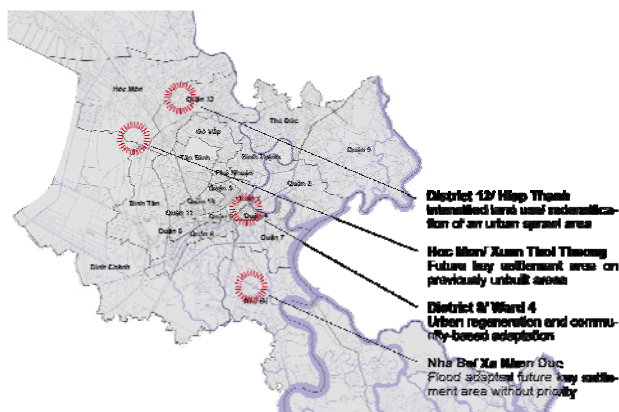


## Outline & Purpose

The Roundtable at the Brandenburg University of Cottbus (BTU) was split into two sessions. The first one dealt with the evaluation and demonstration of applicable research results in exemplary Planning Studies in Ho Chi Minh City (HCMC), where students of the BTU presented their results of the urban design project “Urban Growth and Climate Change – Climate Change Adapted and Resource-Efficient Neighbourhoods”, which took place in the summer term 2010. The project dealt with the rapid growth of HCMC on the one hand and the endangering of the metropolis by the consequences of climate change on the other hand. The project was closely linked with the Megacity Research Project.

The students should be sensitized by dealing with the consequences of climate change in the urban context. The focus of the project was the design of climate change adapted and resource efficient neighbourhoods. The areas of different action fields should be analysed and developed in case studies. The action fields differ on the one hand from natural topography and on the other hand by the degree of climatic exposure.

The aim of the design project was the preparation of an urban development concept, an urban design study and the formulation of recommendations for the respective problems, for example the maximization of building density and densification in new housing projects. At the same time criteria like natural ventilation or sufficient retention areas should be fulfilled. Additionally, the acquirement of building concepts in low-elevated wetlands and the development of an urban renewal concept for low-income settlements should be included.



The main questions during the discussion were:

- Are the main development corridors of HCMC appropriate regarding to urban development and environmental aspects?
- How the conflict between the rising demand for construction sites and housing space and the limited feasible land may be solved?

- Will be a further urban development into the wetlands of HCMC (direction East and South - District 2, 9 and 7, Nha Be, Can Gio) sustainable?
- Are the current urban design concepts for the development in wetlands appropriate (Harbour City Hiep Phuoc, Phuoc Kien New Urban Area) and how the urban design has to be adapted and optimized?
- Which housing typologies are more appropriate in the HCMC context: High-rise or low-rise and apartment condominiums or shophouses?
- Which roll plays the existing building structure in urban design concepts (conservation of existing building structure or negation of existing structures)?
- Which roll plays the public space in current Vietnamese urban design concepts?
- Which importance has the provision of green corridors for adequate urban ventilation?
- What are appropriate solutions for securing buildings and infrastructure against flood risk (dykes, elevation of land, construction bans in low-elevated areas, constructional solutions)?

The second part of the Roundtable treated urban design guidelines to respond to climate change.

The discussion concerned exemplary structural adaptation and mitigation measures for resource-efficient and climate change adapted urban structures and their integration into the Vietnamese planning framework. The main questions were:

- Are the proposed measures feasible for the Vietnamese and in particular the HCMC context?
- Are these measures already used and implemented effectively in development projects?
- Are there any other existing measures related to climate change adaptation and resource efficiency in the planning and building sector?
- Where are the links to integrate these measures into the Vietnamese planning system (obligatory for new development projects)?





## Results Urban Design Project

Students of  
Brandenburg University  
of Technology Cottbus

All participating students were divided into four groups, each focussing on a specific site within the HCMC context and with a specific task:

- **District 12/ Ward Hiep Thanh**  
Potential for intensified land use of vacant sites within an existing structure (densification);
- **Hoc Mon/ Ward Xuan Thoi Thuong**  
Potential for future key settlement areas (densified settlement on previously unbuilt areas);
- **District 4/ Ward 8**  
Need for urban regeneration, in particular implementation of structural and non-structural adaptation measures via CBA;
- **Nha Be/ Ward Xa Nhon Duc**  
New developments (if necessary, future settlement area without priority) have to be adapted to flood events.

The students presented their final urban design projects and afterwards the Vietnamese delegation criticized several points of the student's ideas. Amongst others, they highlighted the conflict of objectives by the project of group 1, allocation of new construction land and the loss of agricultural area.

They remarked that group 2 (Hoc Mon) planned too less housing typologies for different target groups and there would be missing social and commercial facilities in the urban designs.

The Vietnamese experts remarked that they generally appreciate the approach of group 3 (District 4), to aim at a careful urban renewal of the existing inner-city housing structure. However, they noted that the very high building density and the options for accessing the study site are not appropriate to current Vietnamese demands for housing areas.

The project of group 4 (Nha Be) was appraised to be very similar to a project of the HCMUARC. However, the Vietnamese teachers criticized the widening of the canal profile and that the basic plans were not updated. They missed some kind of a rural character of the urban design, as the study site is situated in the very fringe of HCMC and they missed a detailed analysis of the current situation. The experts remarked that the corridor idea causes difficult problems with housing next to the main road.



## Urban Design Guidelines to Respond to Climate Change

Ronald Eckert  
Megacity Research Project  
University of Cottbus

Within the second session the Vietnamese experts were asked to give remarks and statements on exemplary adaptation and mitigation measures, which were presented by Ronald Eckert (BTU Cottbus).

The main statements and comments were:

- **Housing Typologies**  
Shophouse in its current design is not a traditional typology, nowadays young people prefer to live in "clean flats"; small plots are preferred by developers, easier to sell;
- **Green Roofs**  
unusual in the Vietnamese housing design and when realized, than rather for a nice design on roofs, where people are supposed to enter and enjoy; in contrast to Germany, where green roofs are more a technical measure and not accessible;
- **Rain Water Harvesting**  
open water storage facilities (as part of landscape design) are rarely known in Vietnam, maybe due to problem of mosquitoes, etc; underground water storage is part of traditional housing patterns, but mostly forgotten in current housing designs;
- **Permeable Surfaces**  
currently there are no regulations on how the landscape, the surrounding of neighbourhoods and in particular the pavements should be designed; only some non binding recommendations; permeable surfaces are unusual;
- **Flood Protection**  
erection of dykes and embankments at the city-level and up-levelling of construction land at the neighbourhood-level are usual measures to tackle floods; the limited view and problems deriving by the practice of land filling are partly known;
- **Public Transport**  
people would change to public transport.

In the concluding discussion all participants decided that the dialogue on adaptation and mitigation measures should be continued and the Vietnamese experts offered they support in case of questions about the proposed catalogue. The German experts mentioned the possibility of a cooperation fund for the research help for students and the Vietnamese assistants suggested contact with triangle cooperation of HCMUARC, DPA and HIDS.

## Participants

### Ho Chi Minh City University of Architecture (HCMUARC)

- Mr. Ma Van Phuc  
Head of Urban Planning Section
- Mr. Doan Ngoc Hiep  
Head of Urban Management Section
- Mrs. Truong Thai Hoai An  
Technical Infrastructure Section
- Mrs. Nguyen Thi Hong Thu  
Urban Planning Section
- Mr. Quach Thanh Nam  
Urban Planning Section
- Mr. Pham Anh Tuan  
Urban Planning Section

### Brandenburg University of Technology Cottbus (BTU Cottbus)

- Mr. Frank Schwartz  
Head of Dept. of Urban Planning and Spatial Design
- Mr. Kai Steffen  
Dept. of Urban Planning and Spatial Design
- Mr. Ronald Eckert  
Dept. of Urban Planning and Spatial Design

### Students of BTU Cottbus

- Andreas Brinkmann
- Borja Gonzalez Ferrer-Vidal
- Erik Fillies
- Raphaela Guin
- Susanne Hanika
- Maria Hartmann
- Paula Hentschel
- Thomas Jäger
- Dominique Keulicht
- Anja Krause
- Diego Arechavaleta Mata
- Daniel Schöne
- Jens Weidner

