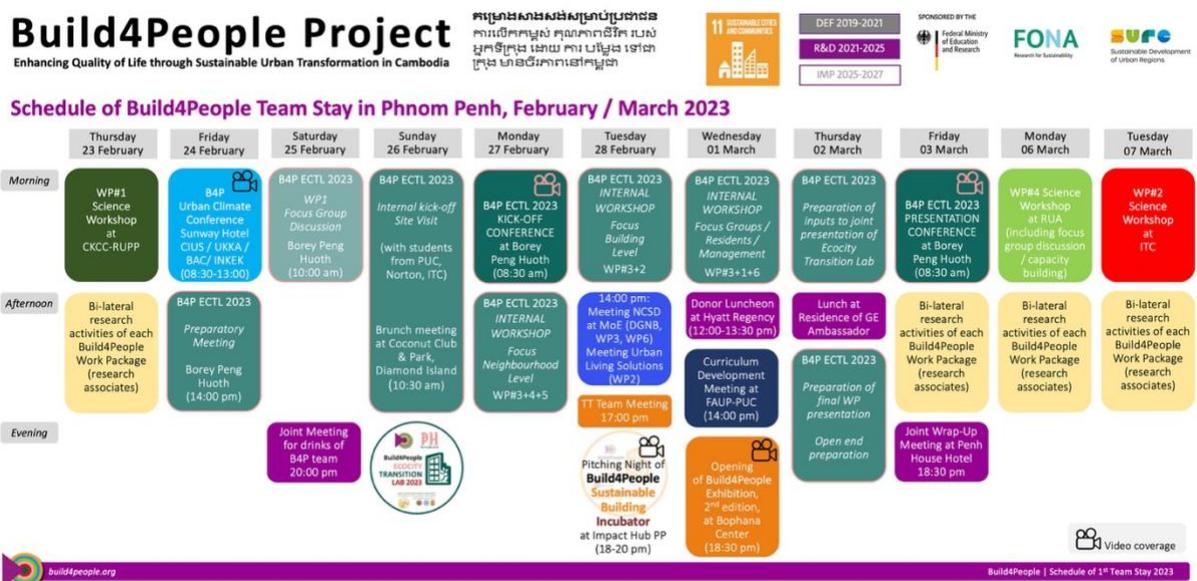


## Build4People – Project activities on site in Phnom Penh, Cambodia in February and March 2023

In March 2023, the Build4People team was working on site in Phnom Penh for two weeks. Alongside the conduction of fieldwork such as drone flights and interviews, team members used their time to further enhance networks with local actors and disseminate already existing knowledge through several conferences and workshops. Focus of this stay was the Build4People Ecocity Transition Lab 2023, a format revolving around an innovative cooperation between the locally renowned developer company Peng Huoth Group, the multi-disciplinary Build4People Team, students from several Phnom Penh Universities and representatives from Phnom Penh Capital Hall. This report provides a detailed overview of the individual project activities and events that were conducted during the first Build4People team stay in 2023.

### Overview of Activities of Build4People Team Stay in Phnom Penh, 1<sup>st</sup> Stay in 2023



### Science Workshop “Urban Quality of Life in Phnom Penh” at Royal University of Phnom Penh

On 23 February 2023, Build4People Work Package #1 “Behaviour Change” led by Magdeburg University conducted a Science Workshop about the topic “Urban Quality of Life in Phnom Penh” at the Cambodian Korean Cooperation Centre of Royal University of Phnom Penh.

In the beginning, the workshop featured interesting presentations by master student Piseth Phal as well as PhD students Kvanthai Ing and Harri Hudson, who shared their research on various aspects of Urban Quality of Life in Phnom Penh. Their thought-provoking presentations were followed by interesting questions and a fruitful discussion. After a short coffee break, WP#1 Researchers Dr. Anke Blöbaum, Ramune Pansa, Dr. Vanna Op, and Dr. Serey Sok provided insights from their latest panel study and its results. During this study, standardised interviews were conducted with a representative sample of 750 households in Phnom Penh from April to May 2022. The study aimed to analyse the ecological behaviour patterns of Phnom Penh residents and identify opportunities for behaviour change interventions that could improve their quality of life. One of the main findings deriving from statistical analysis was that about 28% of participant’s perceived Urban Quality of Life can be traced back to psychological factors. Participating students, researchers and local actors also heard a speech by Build4People collaborative project leader Michael Waibel, who thanked all the participants and highlighted the importance of individual consumption behaviours in the context of ecological urban

change. Moreover, he discussed the B4P vision and the project’s focus on achieving equality in urban quality of life in Phnom Penh.

Overall, the workshop was a successful event that allowed the participants to gain new insights and perspectives on behaviour change and urban quality of life in a Cambodian context. The research presented at the workshop will be valuable not only for academic purposes but also policymakers and stakeholders who are working to improve the quality of life in Phnom Penh. The whole Build4People team would like to thank all participants and especially their research colleagues from RUPP for their dedicated support.



**Build4People Urban Climate Conference, Sunway Hotel, Phnom Penh, 24 February 2023**

On 24 February 2023, the Build4People Urban Climate Conference took place at Sunway Hotel, Phnom Penh. The rationale behind this event is that global climate change will increase heat and flooding problems in cities. Therefore it is important to understand urban climate and its application in urban planning and building design. For Phnom Penh an urban climatic map has been developed by INKEK together with its research partners at RUPP. In the course of the Build4People Urban Climate Conference the calculation behind the Phnom Penh urban climate map got explained and its evaluation by measurements. Moreover, discussions took place how the Phnom Penh Urban Climate Map can be implemented within the Cambodian planning system.



In the further course of the Build4People Urban Climate Conference case study sites got presented to illustrate how to create a climatological oriented design based on different spatial scales, such as a city wide strategy, neighborhood planning, building design and open space design / street canyons. In this way, the Build4People Urban Climate Conference contributed to an increased understanding and to a dissemination of the significance of urban climate and its application within the regulatory framework of Cambodia.

 **YouTube** [Link to YouTube video clip documentation of the Build4People Urban Climate Conference](#)

## Successful Kick-off Conference of Build4People Ecocity Transition Lab 2023 at Grand Hall of Borey Peng Huoth, Phnom Penh

On 27 February 2023, there was the successful Kick-off Conference of the Build4People Ecocity Transition Lab 2023 at the PH Grand Hall of Borey Peng Huoth in Phnom Penh.

Welcome remarks got provided by HE Nuon Pharat, Vice-Governor of Phnom Penh, Mr. Stefan Messerer, Ambassador of the FR of Germany in the Royal Kingdom of Cambodia, Oknha Thay Mengly, GCEO of Peng Huoth Group, and Dr. Heike Bauer, DLR Project Management Agency (funding Agency on behalf of the German Ministry of Education and Research, BMBF).



Then, Rolf Messerschmidt, CEO of Eble Messerschmidt Partner and leader of B4P Work Package “Sustainable Neighbourhoods” provided an overview of the scope of the envisaged activities of the Build4People Ecocity Transition Lab 2023. After that two keynote speeches were provided. The first one was given by Dr. Stephan Anders, Director Network & Consulting of German Sustainable Building Council (DGNB), who presented about DGNB Certification and Criteria for Sustainable Neighbourhood Development. The second keynote speech got provided by Mr. Ratha Chan, Deputy Corporate Affair Director and Assistant to GCEO of Peng Huoth Group, who introduced about current urban design and architecture standards of Peng Huoth Group.

In the following Rolf Messerschmidt introduced about Build4People Sustainable Neighborhood Strategies and Criteria. This was followed by thematic inputs to ECTL process by the other Build4People Work Package representatives and a vivid discussion.



## Fruitful exchange of Build4People researchers with representatives of the Department for Green Economy at the National Council for Sustainable Development of Cambodia

On 28 February 2028, the Build4People team members Rolf Messerschmidt, Leader of Work Package “Sustainable Neighbourhoods”, Prof Dr Dirk Schwede, Leader of Work Package “Sustainable Building”, Ravi Jayaweera, Research Associate of Work Package “Sustainable Urban Transformation”, Dr. Stephan Anders, Director Network & Consulting at the German Society for Sustainable Building (DGNB) and member of the Build4PeopleScientific Advisory Board had a fruitful exchange with Sokhai Nop and his team of the Department for Green Economy at the National Council for Sustainable Development of Cambodia and (online) with their consultant Martin Schoch.

The team extensively discussed the draft version of the CamGCGB (Cambodia Guidelines and Certifications for Green Buildings), provided feedback and explored future fields of cooperation.



## Promising discussions at Impact Hub’s Innovation Garage to prepare for 2<sup>nd</sup> Build4People Sustainable Building Arena

On 28 February 2023, members of the so called Build4People Transition Team met to discuss the design of the upcoming Sustainable Building Arena. The meeting was joined by Ms. Leakhena Setha, Ms. Emilie Traub, Mr. Sothirith Yuk, Mr. Sokhai Nop and Build4People team members Ravi Jayaweera (Research Associate, Work Package “Sustainable Urban Transformation”) and student assistant Niels Kapeller. The key question of this meeting was how to move from abstract visions to more concrete project ideas and actual implementation on the ground. The date of the next Build4People Sustainable Building Arena was set to take place on 20 April 2023 in Phnom Penh.

Build4People would like to express its deep gratitude to the transition team members for their time and valuable inputs.

## Pitching Night of Build4People Sustainable Building Incubator at Impact Hub Phnom Penh

On 28 February 2023, the concluding event of Build4People Sustainable Building Incubator took place at Impact Hub Phnom Penh.

In the course of the [pitching night](#), five teams of young aspiring entrepreneurs presented their exciting business ideas in the field of sustainable building.

In the end, the winner was [AquaBuild](#) – a startup working on making building materials more sustainable and environmentally friendly from water hyacinths to eliminate waste and limit water pollution, especially in the Tonle Sap Lake area.



We would like to take this moment to thank everyone for attending our Build4People Sustainable Building Incubator Pitch Night, both online and in person. We are grateful for the support. It was among the biggest crowds in the history of Impact Hub Phnom Penh space.

Furthermore, Build4People would like to thank the honorable judges, Mr. Nop Sokhai, Mr. Chansan Hun, Michael Waibel, and Ms. Leakhena Setha. We appreciate their time and energy in this journey with the teams.



Finally, we thank our funders, the German Federal Ministry of Education and Research (BMBF), and the whole Build4People team, who have supported and provided resourceful networks and expertise in sustainable building and made everything possible.

Last but not least, our thanks go to our sponsor, the architecture office *re: edge* for helping us with the cash prize.



[Link to YouTube video clip documentation of Build4People Sustainable Building Incubator Pitching Night](#)

## **Luncheon to connect Build4People with donor organisations supported by German Embassy at Hyatt-Regency Hotel, Phnom Penh**

On 01 March 2023, the German embassy in the Royal Kingdom of Cambodia invited representatives from international donor organisations to a luncheon at the Hyatt-Regency in Phnom Penh.

The aim of this event was to connect these donor organisations with the Build4People project, particularly in regard of the Implementation Phase scheduled from 2025-2027. In the presence of Dr. Heike Bauer from DLR Project Management Agency (Build4People funding agency on behalf of the German Ministry of Education and Research, BMBF), members of Build4People introduced about its people-led transdisciplinary solution-based research approach and presented first ideas how donor organisations could start a collaboration with the project.

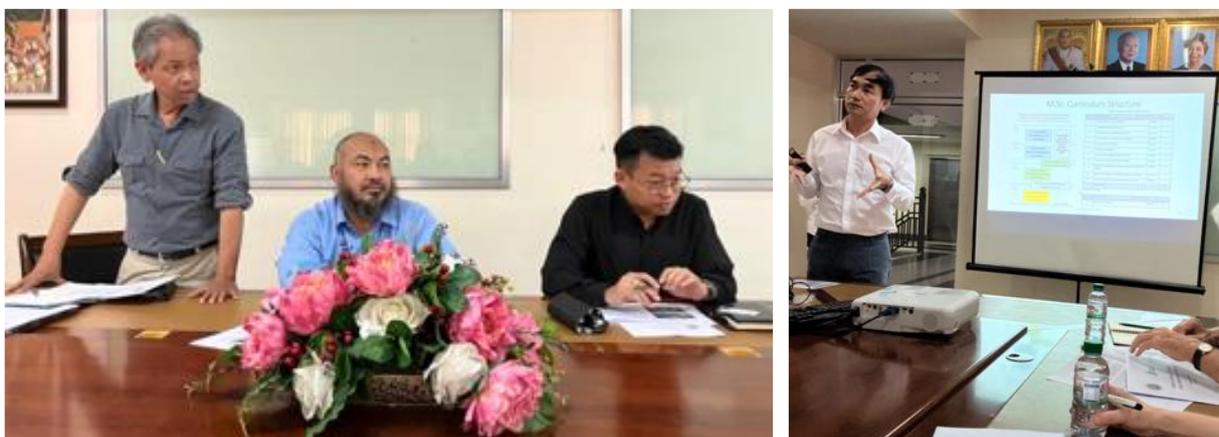


This was followed by a Q&A session which also revealed challenges to bring together trans-disciplinary research approaches with donor implementation approaches.

## **Meeting between Build4People and Paññāsāstra University of Cambodia to discuss the new master course “Sustainable Urban Transformation Planning”**

On 01 March 2023, leading representatives from the Build4People project and from the Paññāsāstra University of Cambodia met to discuss the final draft of the new innovative master course “Sustainable Urban Transformation Planning”, which shall reflect the people-centred, cross-cutting and integrated urban transformation approach of our multi-disciplinary team. The curriculum development process

has been led by Prof Dr Tep Makathy, Dean of the Faculty of Architecture and Urban Planning (FAUP) at PUC, and supported by Detlef Kammeier, Prof. emeritus for Urban Planning at the Asian Institute of Technology (AIT), Bangkok, Thailand, and member of Build4People Scientific Advisory Board as well as by all Build4People Work Package leaders. The intense meeting serves to introduce the basic curriculum contents of the master course “Sustainable Urban Transformation Planning” to the higher administrative levels of Paññāsāstra University of Cambodia and to discuss what still needs to be done.



### Opening of 2nd edition of Build4People poster exhibition “Green Buildings and Sustainable Neighbourhoods” at Bophana Center

The launching event of the 2nd Build4People poster exhibition “Green Buildings and Sustainable Neighbourhoods”, this time with best practice examples from Southeast Asia and from China, attracted many people at Bophana Centre in Phnom Penh.

The exhibition got curated by Build4People Work Package #3 “Sustainable Neighbourhoods” led by the team from Eble Messerschmidt Partner (EMP) with support from all other Work Packages. Furthermore, three posters of the exhibition introduce about the German Council for Sustainable Building (DGNB), Europe’s largest network of sustainable buildings. The member of the Scientific Advisory Board of the Build4People project, Dr. Stephan Anders, took the opportunities to introduce

about DGNB's certification approaches to the audience. The exhibition panels will be shown at Bophana Center for 2 weeks before moving to the Cambodian Institute of Urban Studies (CIUS). Soon they will get published online, as well.

Finally, also a translation of the 35 panels into Khmer languages is foreseen to make the poster contents more accessible and to reach out to a wider local audience.



[Link to YouTube video clip documentation of Build4People Exhibition Opening "Green Buildings and Sustainable Neighbourhoods"](#)

### **Lunch Invitation at the Residence of the German ambassador in the Royal Kingdom of Cambodia**

On 02 March 2023, the German Build4People team got invited for lunch at the residence of the German ambassador in the Royal Kingdom of Cambodia, Stephan Messerer.

The lunch event was joined by Dr. Heike Bauer, coordinator of the BMBF Funding Priority SURE (Sustainable Development of Urban Regions), representing the DLR Project Management Agency (funding Agency on behalf of the German Ministry of Education and Research, BMBF) and Dr. Stephan

Anders, Director Network & Consulting of the German Society for Sustainable Building (DGNB) and member of the Build4People Scientific Advisory Board.

The German ambassador Stephan Messerer used this opportunity to get a more detailed impression of the research and implementation orientated activities of the Build4People project and to get to know the different research team members on a personal level. In the further course of the lunch, the Stephan Messerer introduced about the German cooperation approaches with the Royal Kingdom of Cambodia and entered a discussion about sustainability challenges with various Build4People team members.

The whole German Build4People team is very grateful for this unique opportunity to connect to the highest representative of the Federal Republic of Germany in the Royal Kingdom of Cambodia and would like to very much thank the ambassador Stephan Messerer for this.

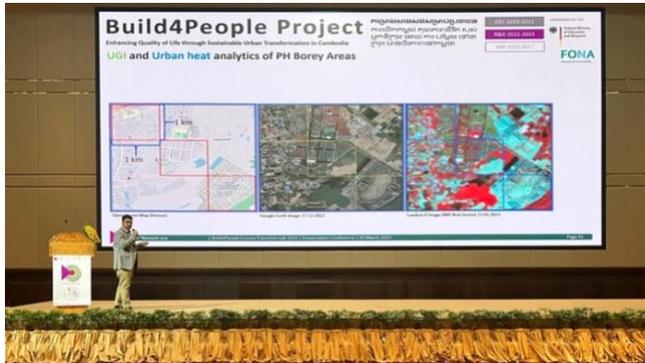


### Build4People Ecocity Transition Lab 2023 Presentation Conference at PH Grand Hall

On 03 March 2023, the Build4People Ecocity Transition Lab 2023 Presentation Conference took place at the Grand Hall of Borey Peng Huoth.



During this event, the different working groups presented their empirical results after an intensive week of multidisciplinary joint analysis with the aim to develop potential micro-interventions and preliminary guideline ideas to foster a more sustainable development of Peng Huoth group, Cambodia most renowned developer company.



The Build4People team and its local research partners are deeply grateful that Peng Huoth Group has supported this truly innovative approach between the corporate sector and the academia to jointly

elaborate new innovative ideas visions to achieve a higher quality of urban life without compromising sustainability goals.

 **YouTube** [Link to YouTube video clip documentation of Build4People Ecocity Transition Lab 2023](#)

### **Build4People WP#4 “Urban Green Infrastructures” Science Workshop at Royal University of Agriculture, Phnom Penh**

On 06 March 2023, the Build4People WP#4 Science workshop was held at Royal University of Agriculture (RUA), Phnom Penh. Besides staff and students from RUA the workshop was joined by the representatives from Build4People WP#1 “Behaviour Change”, WP#2 “Sustainable Building” and WP#5 “Urban Climate”.

Dr Sanara Hor, Vice-Dean of Faculty of Land Management and Land Administration (FLMLA), facilitated the workshop. The event included a capacity building workshop followed by a discussion about the future project activities. WP#4 leader Professor Dr Jan-Peter Mund and WP#5 leader Prof. Dr. Lutz Katzschner presented on time series analysis and urban climate. The subsequent practical session were conducted by WP#4 Research Associate Gulam Mohiuddin. The WP#4 team would like to thank all participants for their active participation and the vivid discussions.

As a modest recognition for the preparation efforts, WP#4 leader, Prof. Dr. Jan-Peter Mund handed over a special edition of the Architecture Guide Phnom Penh to Vice-Dean of Faculty of Land Management and Land Administration (FLMLA), Dr. Sanara Hor.



### **Build4People Science Workshop of Work Package #2 Sustainable Building: ‘Sustainable building dimensions & solutions for Phnom Penh and Cambodia pt.2’**

On the 07 March 2023, the 4<sup>th</sup> Science Workshop of WP2 “Sustainable Building” took place at the Institute of Technology of Cambodia (ITC). This workshop was a continuation of the 3<sup>rd</sup> workshop on 29 September 2022 where questions about what a sustainable building in Cambodia is and what are

the most important environmental challenges that should be considered when such a definition is attempted were asked. So, the purpose of this follow-up workshop was to present the results of its predecessor but also the work of the ITC students that recently participated in the Build4People’s Eco City Transition Lab 2023 in cooperation with Peng Huoth Group, Cambodia’s most renowned developer company.



Multiple Cambodian and international researchers presented their work, amongst them the WP2’s Cambodian research partners Dr. Virak Han and Dr. Kinnalesh Vongchanh.

The workshop started with the B4P WP2 leader, Prof. Dr. Dirk Schwede, introducing the project and agenda of the workshop. Next Christina Karagianni from WP2 presented the results from an online questionnaire-based survey about environmental challenges in Cambodia; the survey revealed among others that issues of AC use are quite understood amongst people familiar with sustainable building concepts, on the other hand it seems there is a lack of understanding of issues of resource efficiency. At this collaborative workshop process two groups of students from ITC participated and presented their own insightful analysis and results. After the end of their presentation, certificates of contribution were handed out to each student on behalf of the Build4People project and of ITC. After a short break Dr. Kinnalesh Vongchanh gave a presentation about the consideration of the energy efficiency in building design. The workshop was concluded with a final presentation by Dr. Virak Han about the Build4People organised building audit and measurement campaign in residential buildings in Phnom Penh. Last, but not least, we would like to kindly thank ITC for supporting and co-organising this event and all of the presenters and participants for sharing their research and insights from Cambodia.



## Yellow, green, red or blue – emotional state at the end of an intensive field work phase of the Build4People team

To start the wrap-up meeting of the Build4People team after an intensive and successful on-site phase in Phnom Penh, all Build4People members positioned themselves in a Mood Meter.



The Mood Meter, originally created by the YALE Center for Emotional Intelligence (YCEI; <https://www.ycei.org/>), to developing emotional intelligence over time, has become a helpful tool for starting and/or ending team meetings. It helps us to identify our own emotions – what is related to the ability to regulate them and take responsibility. Mood Meter is an easy-to-use method that adds a lot of value, especially for large teams.

The picture below shows the feedback from the Build4People team members provided in an anonymous way.



Exhausted after an intense period of work, but in a good mood, in general, the team members headed back to Germany.