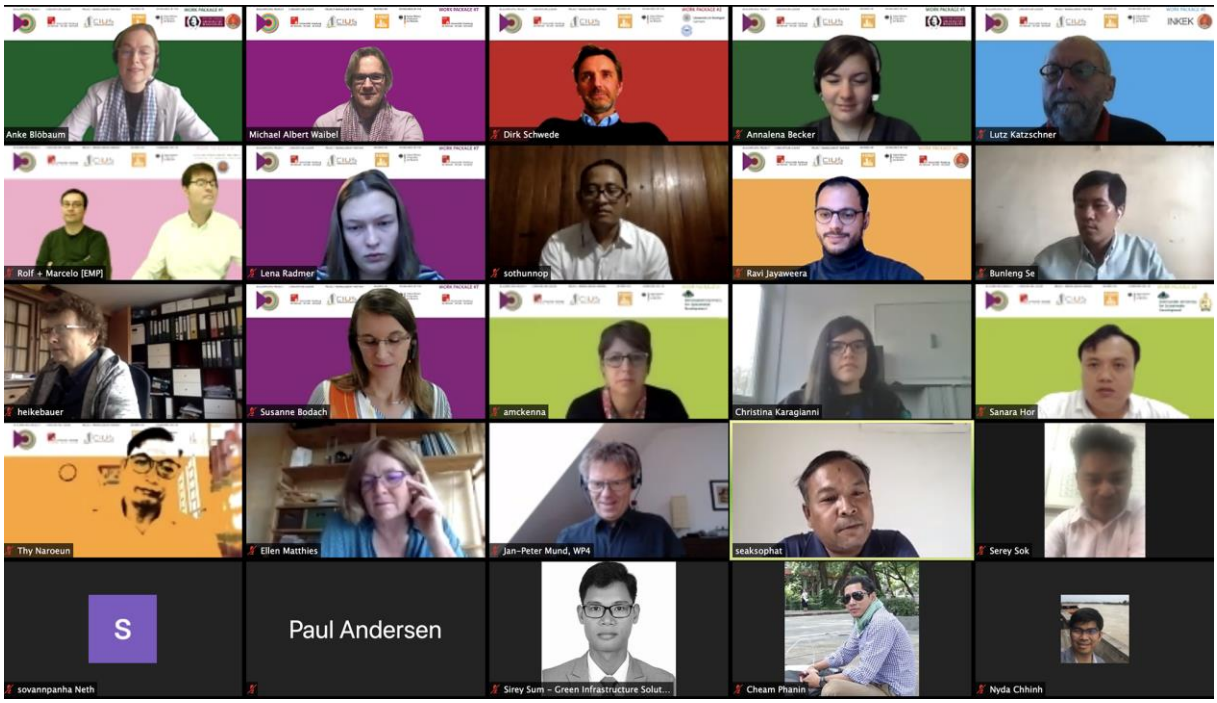
REPORT: Build4People Workshop on Urban Quality of Life (November 2020)

Build4People Workshop on Conceptualization of Urban Quality of Life

On 26th of November 2020, the different work packages of the Build4People project team took part in a workshop to gain a deeper shared understanding of the concept of Urban Quality of Life (UQoL).

UQoL is regarded as the common link of Build4People's scientific-conceptual, analytical and normative research and it is considered to be the general basis for our people-oriented approach. During the upcoming RD phase, we will also analyse its political dimension and its often ambiguous relationship to sustainability.

The workshop was hosted by the Otto-von-Guericke University Magdeburg, WP1 "Behavior Change" and prepared with support from WP4 "Urban Green" and WP7 "Coordination, Communication & Dissemination". It was held via Zoom due to the global Covid-19 pandemic.



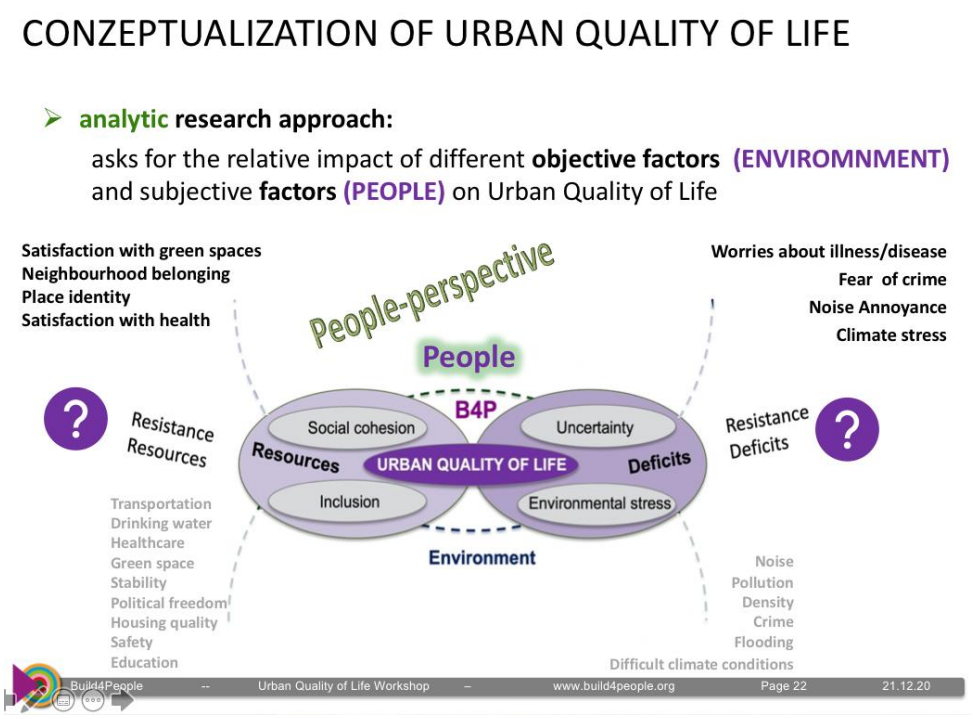
After a short welcoming and introduction to the workshop agenda, Dr. Tep Makathy, Build4People project management partner from the Cambodian Institute of Urban Studies (CIUS), gave an update on the local situation via a video message. Makathy underlined the importance of the Build4People project activities in regard of much needed transformation processes of Phnom Penh's current urban development path.

Afterwards Dr. Susanne Bodach, assisting the Build4People local coordination, gave an update on the local situation, as well. Among others, she reported on the joint support of UNEP-UNDP to MLMUPC for "Cambodia -NDC Roadmap for Buildings and Construction 2020-2050". It targets and timeline to achieve zero-emissions and resilient buildings and construction. The Build4People project team will support this process.

Furthermore, Dr. Heike Bauer from the project management agency DLR gave an update on funding of the upcoming four-year Research and Development phase. The first unit of the workshop got concluded with an extensive Q&A session.

Conceptualization of Urban Quality of Life

The next unit started with a presentation about the conceptualization of UQoL held by WP#1 and WP#7. The presenters Michael Waibel and Anke Blöbaum talked about the distinction between UQoL and sustainability, linking ecological footprint and liveability as two domains that are important for the objective of the project – to contribute to a better Urban Quality of Life and sustainable development.

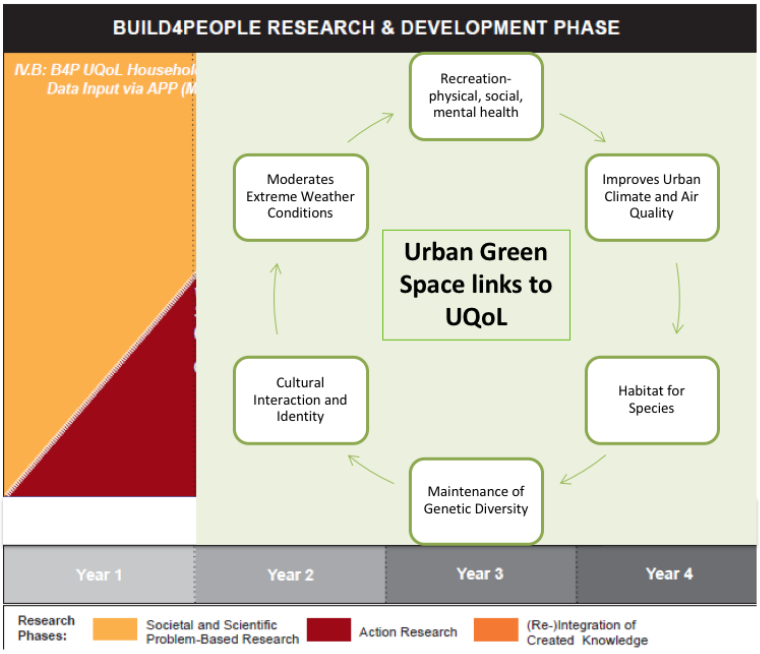


Dr. Anke Blöbaum pointed out how UQoL can be defined not only by objective factors, but subjective ones as well. Therefore, an interdisciplinary approach, concerning the environmental and personal sphere of UQoL Life is really important.

Envisaged Research of Urban Quality of Life during the R&D phase, based on joint application (WP1, WP4 & WP7)

Annalena Becker (WP#1) and Amelie McKenna (WP#4) gave an insight into the transdisciplinary approach work packages #1 Behavior Change and #4 Urban Green use to understand and define urban quality of life in Phnom Penh during their collaborative work in the R&D phase. Work Package #1 Behavior Change will develop a survey, that concludes a variety of factors retrieved from the interdisciplinary workshops on urban Quality of Life during the definition phase and the results of the first survey. It shows that indicators for urban Quality of Life are strongly linked to local urban environments and specific socio-cultural lifestyles. Therefore, it is crucial to include the citizens' perspectives into the research. In order to get a deeper understanding of subgroup parameters (specific values, norms and expectations concerning sustainability and urban Quality of Life) standardized face-to-face interviews of a representative sample are conducted, that will allow to analyze the quantitative and qualitative relevance of different indicators via multiple regression analysis and path model analysis.

Build4People Urban Quality of Life - Trans-Disciplinary Approach during RD-Phase

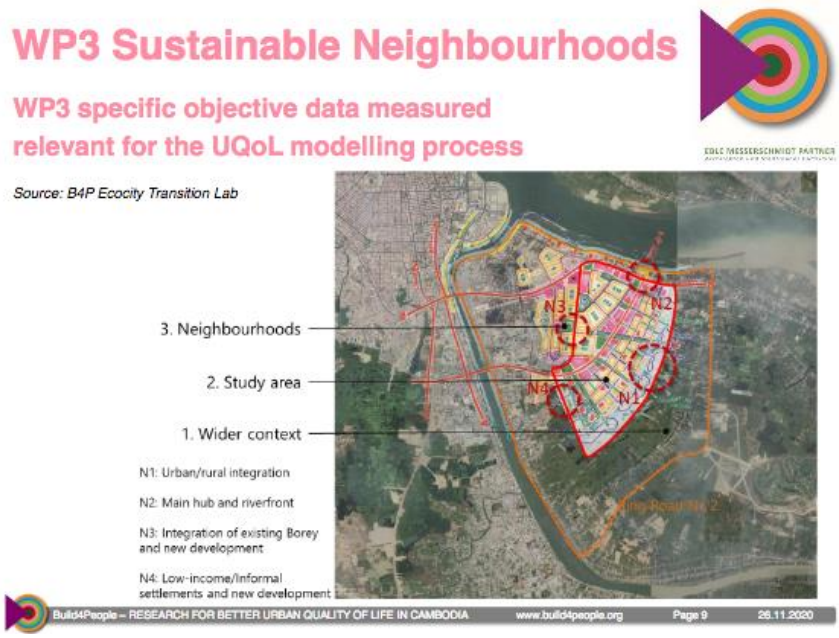


The researchers from work package #4 Urban Green will add to this in a fruitful way by combining objective and subjective data about green spaces, that is conducted by a citizen science input app. Urban green links to urban quality of life in many different ways. It is not only connected to the personal sphere by providing recreation, bettering mental health and offering space for cultural interaction and identity but also on the environmental sphere where urban quality of life is for example affected by the climate and air quality, its capability to moderate extreme weather condition and the maintenance of genetic diversity. Therefore, the quality of the green spaces is especially relevant for UQoL. The establishing of a joint dataset will allow to assess the role and benefits of green spaces for urban residents, which then leads to an insight into the subjective perception of urban green spaces and their quality.

Afterward this introduction to the research design and project activities, the different work packages contributed to the workshop with an impulse presentation concerning the objectives of every work package.

Impulse presentation from WP3 – Sustainable Neighbourhoods

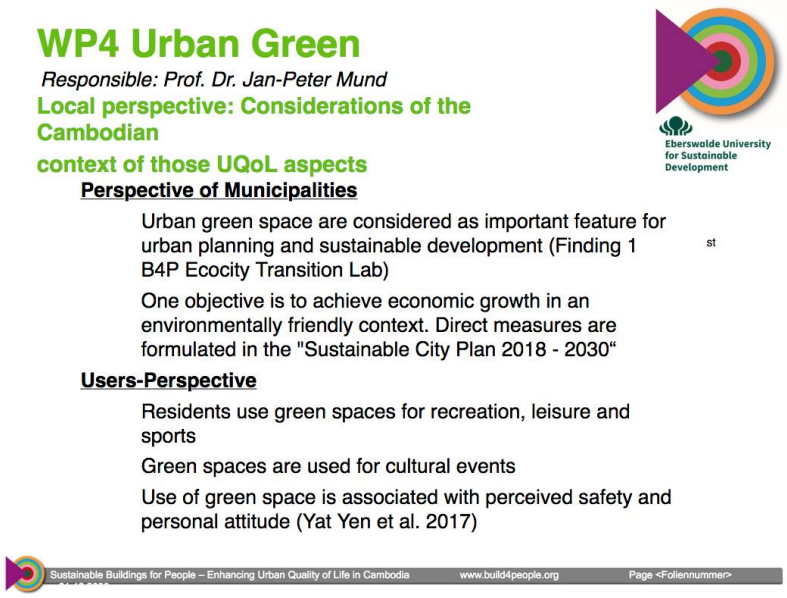
The first impulse presentation was held by Rolf Messerschmidt. His presentation focused on the development of concepts regarding sustainable neighborhoods in Phnom Penh. As a guiding question he especially mentioned that a new learning arising from the Covid-19 pandemic is that people are way more dependent on their local environment and that this environment is valuated higher than before. Different indicators and indexes that target the urban Quality of Life in the scope of sustainable neighborhoods, were presented.



Also, the district in which the research activities take place was introduced. The discussion afterwards concerned the different indexes, especially the DGNB system for sustainable neighborhoods, that was mentioned earlier. Furthermore, participants asked why the study site had been chosen, since it's a relatively wealthy neighborhood. This was justified by defining one considered sample of research - the "new consumers" - who typically live in more wealthy neighborhoods. Above that, it was also stated that the research team wants to have look at the adjacent areas, that are not as rich and as well on how to integrate these areas into the research activities.

Impulse presentation from WP4 – Urban Green

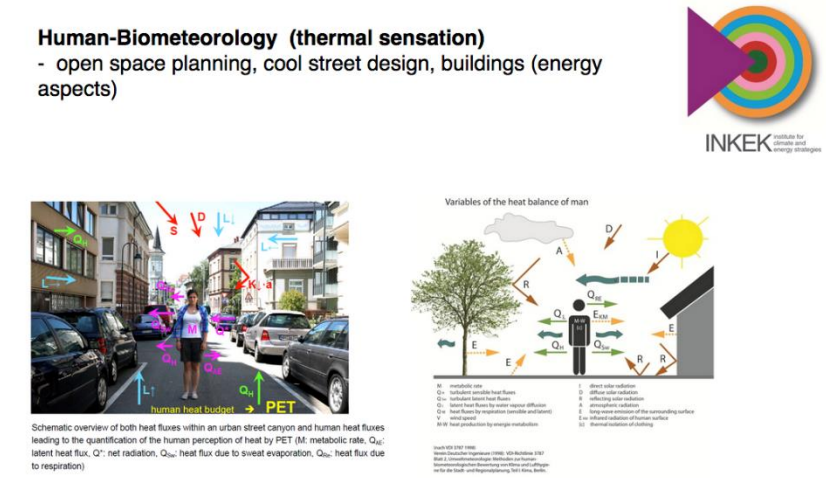
The next impulse presentation was held by work package #4 concerning Urban Green. From a scientific perspective Urban Green of a city is a determining factor for the quality of life in fast growing cities. In Phnom Penh two different perspectives are important, when trying to better the urban green situation. The first one is the perspective of municipalities, the second one the users-perspective. Too measure the Urban Green of a city, different approaches can be taken into account. On the one hand the calculation of the Urban Green Neighborhood Index, which is a mono-disciplinary approach can be taken into account, while on the other hand the citizens science input app, a trans-disciplinary approach, concerns the subjective perception and assessment on the quality of urban green.



Afterwards Lutz Katzschner (WP#5 Urban climate) asked about combining the urban climate map with the urban green data. This idea was well received, because it could be a good tool to address stakeholders. Also, the role of green infrastructure solutions was discussed, and it was mentioned that the work packages is already in contact with an urban planning and design company specialized in drainage systems and flooding problems in Phnom Penh, that is giving them a better local understanding of specific regional problems.

Impulse presentation from WP5 – Urban Climate

The next presentation was held by Lutz Katzschner, head of the work package #5 Urban Climate. He introduced the concept of human biometeorology and explained the different ways to gain and display data in their research discipline (interviews and microclimatic measurements). Also, urban climate maps were mentioned as a tool that is applicable within the research activities. Moreover, the definition of an ideal urban climate was mentioned as a concept contributing to an awareness campaign, that will take place later in the project.

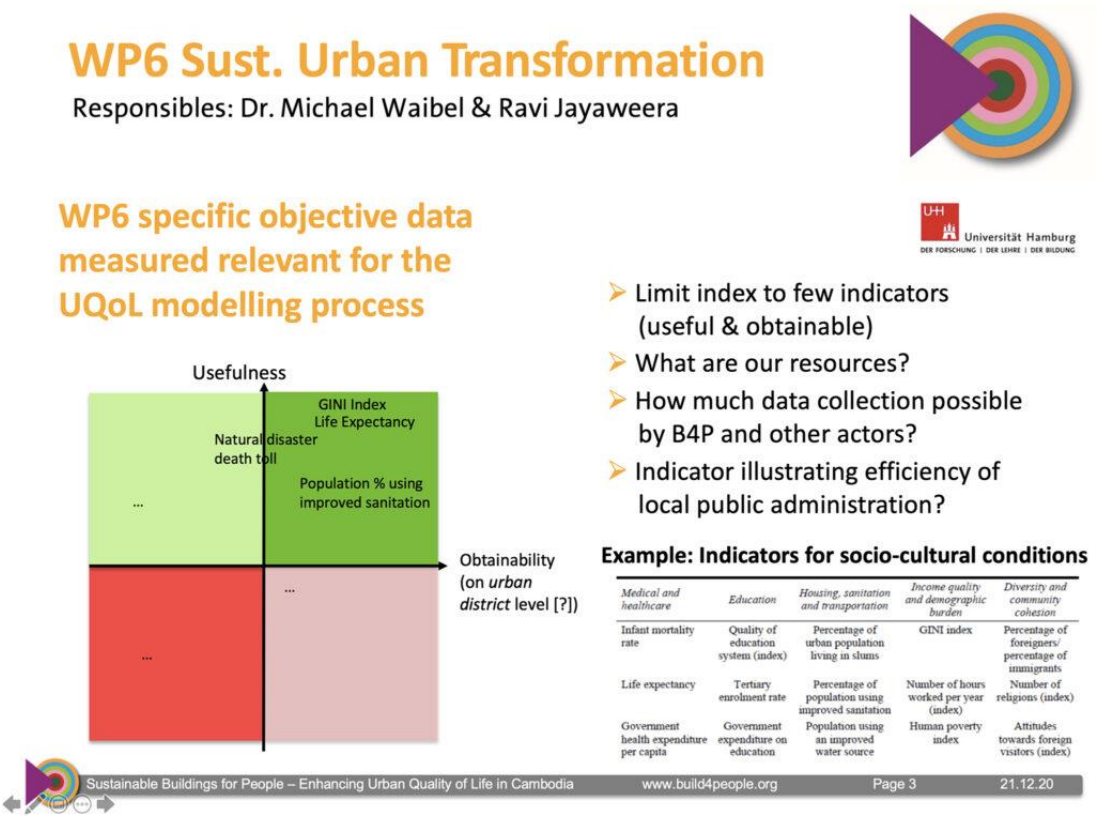


Schematic overview of both heat fluxes within an urban street canyon and human heat fluxes leading to the quantification of the human perception of heat by PET (M: metabolic rate, Q_{AE}: latent heat flux, Q^*: net radiation, Q_{Sw}: heat flux due to sweat evaporation, Q_{Re}: heat flux due to respiration)

The discussion afterwards first focused on the similarities and differences of the concept of “thermal comfort” and “coping mechanisms”, which is also part of the psychological research and the different dimensions of the concept have partly different interpretations within the disciplines. Furthermore, it was discussed how linguistic challenges can be targeted while setting up the household survey. Concerning the modelling process of UQoL, it was discussed how the indicators, that are developed by the team, will be ranked and how the data will be retrieved from different sources. WP#5 stated that the climate specific measurements are conducted by themselves, while the structure from the index is retrieved from the literature and the different parameters are ranked accordingly.

Impulse presentation from WP6 – Sustainable Urban transformation

The presentation by Ravi Jayaweera specifically targeted the political dimension of UQoL and how transformative studies can have an impact on sustainability. It was mentioned how objective factors and their modelling towards a coherent model could be useful in defining Urban Quality of Life and making the definition easier to grasp and apply for stakeholders. This should also be addressed by WP#6 within an awareness campaign.



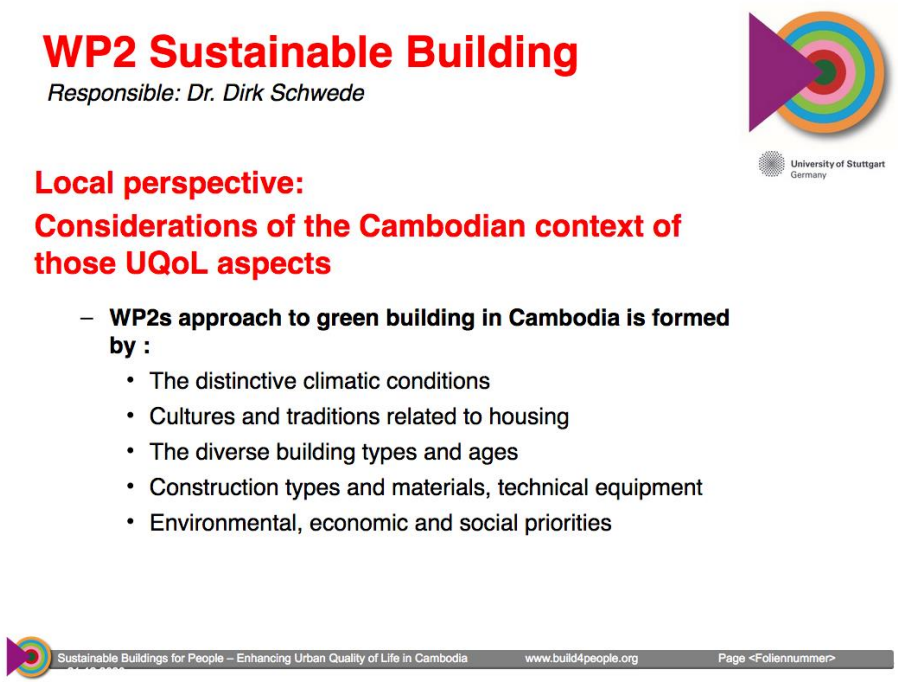
The discussion afterwards focused on how and if an UQoL model could be a useful outcome for the project. After different inputs from different work groups talking about how and on what scale they measure parameters important to them, the discussion came to agreement that it will be a challenge to add all of the different parameters together to one coherent model. This lead to the conclusion that more discussion on that topic is needed in the future as an ongoing iterative process of collaboration.

Impulse presentation from WP2 – Sustainable Buildings

The impulse presentation of work package #2 was held by Christina Karagianni. From their scientific perspective buildings make a crucial contribution to urban Quality of Life by reducing negative impacts of the climate and natural environment through design, construction and operation. Also, buildings impact health comfort and energy consumption, which are relevant to both the quality of life of people and environmental issues. From a local perspective the work package's approach is formed by distinctive climatic conditions, culture and tradition, the diverse building types and ages, construction types and material and environmental, economic and social priorities. The specific objective of WP#2 concludes temperature and humidity measures, CO2 monitoring and surveys targeting thermal

comfort and households in general. More specifically for the household survey the researchers propose two possible sections:

1. "*How do people perceive the residential environment supportive to quality of life?*"
2. "*What are the domains of building, that are relevant to the urban quality of life in Cambodia today and in the future?*".



The questions after the impulse presentation mainly concerned the survey about buildings that is going be conducted. The sample size was specified as about 100 households. One question concerned the building type that will be regarded. It was clarified that the building type is not chosen yet and the research team is interested in researching different types of houses, such as a typical Khmer house, a villa, a condo and a flat. Also, members of the work package #1 discussed if it would be possible to mix the surveys of the two work packages and establish a joint sample.

First Synopsis of Urban Quality of Life

Afterwards a synopsis on Urban Quality of Life was moderated by WP#1 in order to come to a shared understanding of the concept of UQoL. The workshop participants discussed the overlapping ideas and factors that can be found within the different disciplines and what challenges they see that need to be targeted during the upcoming Research & Development phase. With the help of the local research partners in Phnom Penh, a fruitful discussion on the understanding of governance and the cultural context was unfolded. The role of different stakeholders was taken into account to address the possible sustainability pathways within the urban development. In this regard, the difficulties in

modelling the Urban Quality of Life were discussed, since a UQoL model could serve as a tool to some stakeholders on the governmental level. Therefore, the scale levels that the different work packages base their research on were discussed. It was considered, that many combined approaches could meet both the scientific requirements and the practical applicability of the project's products. In regard of the different scopes of the research activities of the work packages, the role of analytical modelling methods of psychology research was discussed. Also, the organization of shared samples for the upcoming research was discussed again.

The participants of the workshop agreed on further working steps and discussion points that will be taken up in the coordination and adjustment of the project activities. In order to exhaust the possibilities of the transdisciplinary expertise and the holistic approach of the Build4People project, a lot of importance is attached to the fine-tuning of collaborative research activities and local project activities by the team.

As Urban Quality of Life is regarded as the common link of the project's scientific-conceptual, analytical and normative research, the shared understanding reached through the discussions within the workshop will enrich the teamwork extensively.

In summary, the workshop successfully brought together the previous research of the individual Build4People work packages and thus contributed to useful learning experiences and an initial conceptualization of Urban Quality of Life.

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