STUDY OF THE QUALITY OF LIFE IN PHNOM PENH URBAN POOR COMMUNITIES

Thesis on the application of the Q methodology within the international association Planète Enfants et Développement.

Danaé LAOT

Under the supervision of Ms Claire GAUZENTE-JUGUET

Master 2 Environmental, Energy and Transport Economics

Sustainable Development Project Management Course

2020

IAE NANTES
ÉCONOMIE & MANAGEMENT

UNIVERSITÉ DE NANTES

PLANETE ENFANTS & DEVELOPPEMENT

Acknowledgements

This study could not have been carried out without the help and support of some people whom I would like to thank.

I would like to thank Vichheka Ly, research assistant at Planète Enfants & Développement, for her involvement in this study, without which it would not have been possible to go into the field, given the language barrier.

I would also like to thank Claire Gauzente-Juguet, teacher-researcher at the University of Nantes for her valuable technical advice and guidance in this internship thesis.

Also, I would like to thank Pierre Larnicol, project manager of the project in which I was lucky enough to be able to do this internship. Above and beyond the possibility for me to put into practice the knowledge and skills I acquired during my Master's degree in Environmental Economy at the University of Nantes, this internship was above all a unique human experience, rich in encounters, which allowed me to discover part of the very rich Khmer culture.

Finally, I would like to thank the entire team of Planète Enfants & Développement for their warm welcome and their precious help throughout the course, as well as all the members of the communities I had the pleasure of meeting, for their participation and their warm smiles that I will always remember.

Abstract

This research work is the continuation of a study started during my course in Quantitative Analysis at the University of Nantes, where I was part of a group of eight students from my master's degree, to work on the major issues facing the inhabitants of the Port Boyer neighbourhood in Nantes in December 2019. This preliminary study was carried out in order to build a tool that could later be used to analyse the quality of life in the poor neighbourhoods of Phnom Penh, capital of Cambodia.

This study was carried out as part of my end-of-study internship within the project to improve living conditions in the precarious neighbourhoods of Phnom Penh set up by the association Planète Enfants & Développement since 2018.

This work uses the Q-methodology, developed by William Stephenson, in order to study the subjectivity of the points of view of the inhabitants of precarious neighbourhoods on the elements that have an impact on their living conditions. Five different profiles were analysed.

Résumé

Ce travail de recherche est la continuation d'une étude commencée pendant mon cours d'analyse quantitative, à l'Université de Nantes, où j'ai fait partie d'un groupe de huit étudiants de mon master, pour travailler sur les grandes questions auxquelles sont confrontés les habitants du quartier de Port Boyer, à Nantes, en décembre 2019. Cette étude préalable a été réalisée afin de construire un outil qui pourrait être utilisé plus tard dans le but d'analyser la qualité de vie dans les quartiers précaires de Phnom Penh, capitale du Cambodge.

Cette étude a été réalisée dans le cadre de mon stage de fin d'études, au sein du projet d'amélioration des conditions de vie dans les quartiers précaires de Phnom Penh mis en place par l'association Planète Enfants & Développement depuis 2018.

Ce travail utilise la méthodologie Q, développée par William Stephenson, afin d'étudier les subjectivités des points de vue des habitants de quartiers précaires sur les éléments qui ont un impact sur leurs conditions de vie. Cinq différents profils ont pu être analysés.

Summary

ACKNOWLEDGEMENTS - 2 -

ABSTRACT - 3 -

RÉSUMÉ - 3 -

SUMMARY - 4 -

LIST OF ACRONYMS - 6 -

INTRODUCTION - 7 -

I – CONTEXT OF THE STUDY AND OBJECTIVES - 9 -

A. CONTEXT AND HISTORY - 9 -
1. CAMBODIA, A SINGULAR CONTEXT AND A HEAVY PAST - 9 -
2. PROLIFERATION OF URBAN POOR SETTLEMENTS - 10 -
B. CONTEXT OF THE INTERNSHIP AND ORGANIZATION PRESENTATION - 12 -
1. PLANÈTE ENFANTS & DÉVELOPPEMENT PRESENTATION - 12 -
2. CAMBODIAN PE&D PROGRAM - 13 -
3. IMPROVEMENT OF THE AUTONOMY AND LIVING ENVIRONMENT OF COMMUNITIES IN THE PRECARIOUS NEIGHBOURHOODS OF PHNOM PENH - 13 -
4. RESEARCH-ACTION SPECIFIC OBJECTIVE - 14 -
C. PHNOM PENH' CONTEXT OF STUDY - 15 -
1. GENERAL INFORMATION: SETTLEMENTS LOCATION AND DESCRIPTION - 16 -
2. SOCIO-ECONOMIC SITUATION - 16 -
3. INFRASTRUCTURES - 17 -
4. HEALTH, EDUCATION AND CHILD PROTECTION - 17 -

II – METHODOLOGY - 19 -

A) Q METHODOLOGY: CHOICE OF THE METHODOLOGY AND DESIGN OF THE TOPIC - 19 -
B) DESIGN OF THE STUDY - 20 -
1. DESIGN OF THE CONCOURSE - 20 -
2. Q-SET AND P-SET - 24 -
3. COMPLEMENTARY VARIABLES: INTERVIEW PART - 26 -
4. TESTING PHASE AND SURVEY ADMINISTRATION - 27 -

III - RESULTS AND DISCUSSIONS - 32 -

A. FIRST RESULTS FROM THE KENQ DATA ANALYSIS - 32 -
1. CORRELATION MATRIX - 32 -
2. FACTORS EXTRACTION - 33 -
3. FACTOR ROTATION - 34 -
4. FLAGGING - 34 -
5. FACTORS CONSTRUCTION - 35 -
6. FINAL SELECTION OF THE FACTORS - 36 -

B. PRESENTATION OF THE DIFFERENT PROFILES - 37 -
1. FACTOR 1: SAFETY FIRST - 39 -
2. FACTOR 2: THE INDIVIDUALISTS - 42 -
3. FACTOR 3: THE MASCULINE PROFILE - 44 -
4. FACTOR 4: ECONOMICAL CONCERN - 46 -
5. FACTOR 5: THE FATALIST HOUSEWIFE - 48 -

C) DISCUSSION AND LIMITATIONS - 50 -

CONCLUSION - 52 -

REFERENCES - 53 -

APPENDIX - 55 -

List of acronyms

EDC: Electricite du Cambodge

GDP: Growth Domestic Product

MLMUPC: The Ministry of Land Management, Urban Planning, and Construction

MoEYS: Ministry of Education, Youth and Sport

MPP: Municipality of Phnom Penh

NGO: Non-Governmental Organisation

PE&D: Planète Enfants et Développement

PIN: People In Need

PPSWA: Phnom Penh Water Supply Authority

SKO: Samatapheap Khnom Organization

STT: Sahmakum Teang Tnaut

SLR: Systematic Land Registration

UNICEF: The United Nations Children's Fund

Introduction

With the massive urbanisation of recent decades, there are now more people in cities than in rural areas. Rural-urban migration, which has led to overcrowding in a short period of time, has fostered the growth of poor, and mostly informal, urban settlements in and around the world's cities.

Since 2018, the number of people living in slums or informal settlements has reached more than 1 billion, most of them located in three regions: East and South-East Asia, Sub-Saharan Africa and Central and South Asia. Some slums even have a population of more than 2 million, such as in the city of Orangi in Karachi, Pakistan. Neza in Mexico and Dharavi in Mumbai, India, each have a population of more than 1 million. The upward trend is continuing and there are increasing converging estimates that by 2030, a quarter of the world's population will be living in slums or informal urban areas.

Many Non-Governmental Organisations around the world are present in these informal communities to try to improve the quality of life of their dwellers. This is the case of the association Planète Enfants & Développement (PE&D), present in Cambodia since 1984, and which for the past two years has set up a project to improve living conditions in eight precarious communities in the capital, Phnom Penh. The context of urbanization in Cambodia is particular, and notably due to the painful past attributable to the Khmer Rouge regime.

Among the objectives of the project, there is a real desire to understand the situation of the inhabitants as well as possible in order to provide the most appropriate response possible. For this purpose, various studies have been carried out on different aspects, always in direct contact with the inhabitants. Indeed, for PE&D it is essential to work directly with the people concerned in order to obtain the most accurate information possible.

The objective of this study is to identify the main concerns in three poor neighbourhoods in Phnom Penh, taking into consideration the views of the inhabitants actually living in these neighbourhoods and thus being able to discuss about what they consider to be impactful on their quality of life in these different communities. Several assessments of urban poverty in Phnom Penh have already been carried out over the last decade, simultaneously by the Government and by NGOs. The main results are much the same, and have been obtained through quantitative assessments. The aim of this study is to use a different type of assessment, by analysing both

quantitative and qualitative data, using the Q methodology to have a fine understanding of the needs and priorities of the inhabitants. Q methodology was developed by the psychologist and physicist William Stephenson, in order to study people's subjectivity.

This study follows a three-part presentation, the first part of which outlines the context of both the project and the study itself. The second part presents the methodology used in the course of this work. Finally, the last part deals with the results obtained from 48 inhabitants in 3 precarious communities in Phnom Penh, followed by a discussion of these results.

I – Context of the study and objectives

A. Context and history

1. Cambodia, a singular context and a heavy past

Cambodia is a country located in Southeast Asia, country bordering on Thailand, Laos and Vietnam, and whose capital is Phnom Penh, the one that was once called the pearl of Asia. The official language is Khmer. This country is not one of the most populated in Asia, the total population was estimated to nearly 16.5 million of inhabitants in 2019, according to the World Bank. Life expectancy is almost 70 years old. Cambodia's Growth Domestic Product, for the year 2019, was 27 billion of dollars, with an exceptional annual growth of 7.1%, before the COVID-19 pandemic. According to Open Development Cambodia statistics, in 2015, 78% of the population was living in rural area.

Cambodia has a strong history, from the blossoming of the Khmer empire to the French protectorate and the tragic period of the Khmer Rouge regime. The latter has caused major upheavals in the country's growth dynamics and urbanization. This political instability, which lasted for many years, has led Cambodia to become one of the poorest countries in Asia, despite the fact that in recent years it has enjoyed one of the most dynamic growth rates in the world.
After years of civil wars, in 1975, the Communist Party of Kampuchea, celebrate known as the Khmer Rouge regime, forced all city dwellers to leave the cities and move to the countryside. The 17th of April 1975, the Khmer Rouge regime forced all the citizens to leave the Capital. In one day, all of the capital's 2 million residents were forced to leave the city, pretexting imminent American bombings that will never happen in the end. This was followed by more than three years of forced labour, torture, and other tragic acts under a radical communist regime, that resulted in the deaths of more than 1.7 million people.
Civil War officially ended in 1991. Since then, the political situation is quite stable. The economic growth is mainly driven by garment exports and tourism, and, to a lesser extent, by agriculture, construction and real estate according to the World Bank. The Statista Country Report of Cambodia stated in its assessment that textile exportations have represented around 70% of the total exportations of Cambodia during the past years. As a result of the COVID-19 pandemic, the

economic health of the country is very largely affected, in particular due to the loss of income created by the fall in tourism and the difficult redeployment of the textile industries, whose raw materials are mainly imported from China, where activity has been halted at the height of the pandemic in recent months. Tourism and other related sectors account for 32.8% of the country's GDP. Also, still according to the Statista report's predictions, the employment rate will fall drastically in the coming months, with economic consequences that could extend over several years. Cambodia's government has announced a financial support to help the poorest and most vulnerable one, but it will not be enough to help the country out of the coming crisis. Also, the World Bank announced in a press release that they approved a $20 million loan for Cambodia, as a response to the COVID-19 crisis.

These economic difficulties are compounded by widespread corruption. The German Non-Governmental Organization Transparency International, which works to fight corruption, reveals each year the rankings of 180 countries on the Corruption Perceptions Index. In 2019, Cambodia was 162nd out of 180 countries in the world. Widespread corruption in the public sector hinders the development and improvement of public services such as health and education, which are the key sectors for development.

2. Proliferation of urban poor settlements

In Cambodia, according to the World Bank data[1], 55% of the population was living in slums in 2014, in % of urban population of the country. As a comparison to Cambodia's geographical neighbours, in 2014, Lao has a rate of 31%, Vietnam 27% and Thailand 25% of their urban population who lived in slums.

After the collapse of the Khmer Rouge regime in 1979, following the intervention of the Vietnamese army, Cambodians started to settle in the cities again. This massive migration from the countryside to the cities, and even more so to the capital, could not be controlled. The houses, which were vacant at the time, were occupied on a "first come, first served" basis. The inhabitants therefore settled as they arrived, wherever they could. A large wave of immigration took place during the 1990s. The lack of control and support has led to the proliferation of many areas of

[1] World Bank, Population living in slums (% of urban population) – Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, consulted the 2nd of August, 2020.

precarious habitats, where mostly live urban poor households, that are defined, according to UNHABITAT definition[2], as "a group of individuals living under the same roof in an urban area who lack one or more of the following:

1. Durable housing of a permanent nature that protects against extreme climate conditions.
2. Sufficient living space which means no more than three people sharing the same room.
3. Easy access to safe water in sufficient amounts at an affordable price.
4. Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people.
5. Security of tenure that prevents forced evictions."

In 2018, 277 urban poor settlements have been identified[3] in Phnom Penh. Previous data shows that there has been a decline in the number of precarious communities over the last decade, from 410 in 2009 to 340 in 2014. However, this decline in the number of urban communities is not necessarily due to improved living conditions or access to property, but also to forced evictions or re-housing outside the limits of the capital. Thus, the urban poor settlements don't appear in the official data anymore. Forced evictions are a controversial issue in Cambodia. NGOs and the media are not allowed to visit the site, where the army and the police are mostly present to prevent any intrusion on site to make the process as discreet as possible because they run counter to the foundations of the Universal Declaration of Human Rights, which recognises the right of everyone to have access to decent housing (article 25), and that are recognized by the Cambodian Constitution (article 31). It shows the extent to which these populations are vulnerable and have no power and control over their situation.

However, it should be pointed out that the situation has improved somewhat with the Land Law amended in 2001, which gave the inhabitants official access to property, which had not been the case since the Khmer Rouge regime took power, which had abolished all forms of property in order to fight against capitalist society. While a good number of city dwellers were then able to benefit from official property titles, this was not the case for all of them. With regard to informal

[2] UN-HABITAT (2006/7), Slums: Some Definitions, State of the World's Cities.
[3] STT (2018). The Phnom Penh Survey: a study on urban poor settlement in Phnom Penh. Phnom Penh, Cambodia.

settlements, the law does not provide for the regularisation of the inhabitants' situation. Nevertheless, in practice, some inhabitants of precarious neighbourhoods have finally been able to acquire official title to their land, but they remain a minority.

It is in this sensitive context of urban communities that the Planète Enfants & Développement association is working, in order to support and improve the living conditions of the inhabitants by working in a holistic way on different axes of development.

B. Context of the internship and organization presentation

1. Planète Enfants & Développement presentation

Planète Enfants & Développement (PE&D) is a French apolitical and non-denominational international solidarity Non-Governmental Organization (NGO) founded in 1984. The headquarter is located in Paris, France. This organization supports the vulnerable children rights to have a decent life, mainly regarding health, education and habitat. PE&D is currently implemented in four countries of intervention: Cambodia since 1984, Vietnam since 1993, Nepal since 1997 and Burkina Faso since 2004. PE&D's purpose is not to "do in lieu of", but rather to help people to become more self-reliant[4].

Children are considered vulnerable due to their lack of autonomy, regarding their insufficient physical and mental development to be able to live by themselves. Children have rights that must be applied. Unfortunately, law social-economic conditions, climate change, wars, lack or absence of family support are all factors that can highly impact proper development child, as recognized by the Child Rights Convention by the United Nations. The aim of PE&D is to act to protect children and enable them to access the rights granted to them. PE&D developed an expertise that is highly recognized and leads to working hand in hand with the various local partners as well as with the Ministry of Education, Youth and Sport (MoEYS) of Cambodia.

[4] Planète Enfants & Développement

In a few figures, in 2019, PE&D had 18 projects in the 4 countries of intervention, 26 352 direct beneficiaries, 825 families supported, 10950 children protected, awake and in school and 12 514 women supported, for a budget of 2.09 million euros.

2. Cambodian PE&D program

Operating in Cambodia since 1984, PE&D was the first French NGO to be established in the long term in Cambodia after the end of the Khmer Rouge regime. PE&D Cambodia is currently working on four main areas of development: early childhood development, maternal and early child health, combating violence against women and family support and housing in precarious urban areas. PE&D's work is undertaken in conjunction with local partners, in order to ensure the implementation and sustainability of projects, while respecting local policies.

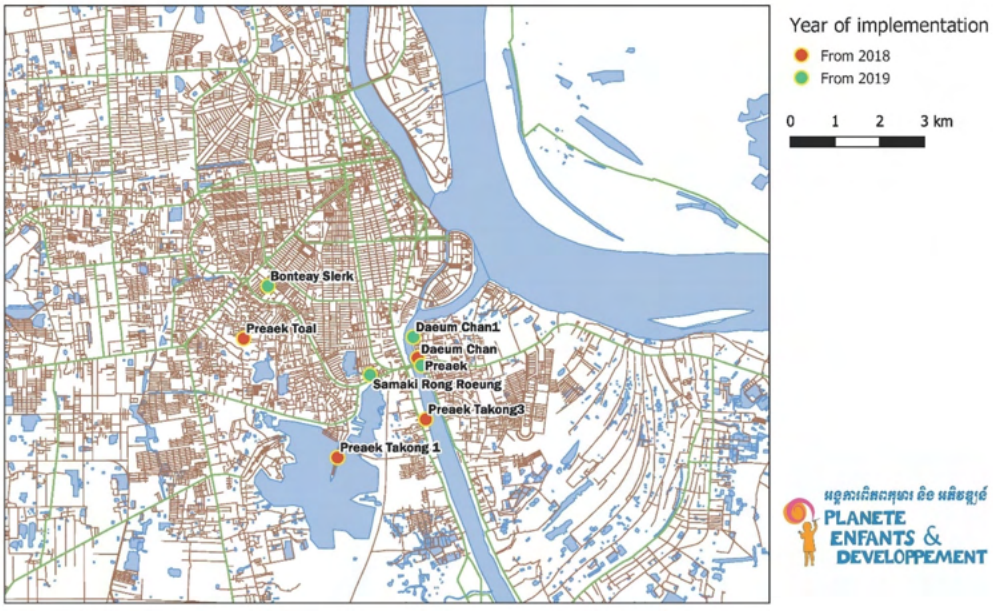
The textile industry accounts for a large part of employment in Cambodia, but very few factories respect the Laws and PE&D acts since 2017 to enable female workers to benefit from health services and has set up childcare systems. With its recognised expertise in the field of early childhood, the NGO has been working for more than 10 years on different aspects, ranging from training to the creation of nurseries in villages where female workers live. The fight against gender-based violence is also one of the pillars of PE&D in Cambodia. Together with its local partner Samatapheap Khnom Organization (SKO) and its social workers, PE&D aims to help victims of domestic violence, mostly women but not only.

3. Improvement of the autonomy and living environment of communities in the precarious neighbourhoods of Phnom Penh

PE&D Cambodia launched a project in 2018, in order to improve the long-term autonomy and living conditions of people living in precarious neighbourhoods of Phnom Penh. The project focuses on four areas of development, directly linked to its local partnerships: family support and habitat improvement, gender-specific prevention and support for victims, strengthening community mechanisms, and action research to develop a more in-depth knowledge of the areas of intervention.

The project of improving the autonomy and living environment of precarious urban communities in Phnom Penh first started on the foundation of the pilot project, which was implemented in four of the urban poor areas of the capital: Daeum Chan, Preaek Toal, Preaek Takong 1 and Preaek Takong 3, which are located in the districts of Mean Chey and Chbar Ampov, in the South part of Phnom Penh. Due to the encouraging results, the project has been extended to the four other communities of Phum 4 (Bonteay Slerk), Phum 5 (Samaki Rong Roeung), Phum Preaek and Daeum Chan 1. The location of the 8 communities are presented in the map below. Apart from Phum 4 and Phum 5 which are located in inner Khan, i.e. central districts, the other six co-communities are located in outer Khan. PE&D was thus working in 8 communities, but recently one of them, Phum 4, has been relocated outside of Phnom Penh. These communities are composed by between 200 to 300 households, which correspond to an estimation of around 1000 to 2000 dwellers per community. These inhabitants are mainly Khmers, and some of them sometimes live with Vietnamese minorities. The first phase of the project started in 2018 and is ending in 2021. A second phase is planned from 2021 onwards.

Map of HaLI project's implementation communities



4. Research-action specific objective

It should be pointed out that Cambodia's statistical databases are not the most reliable one. The World Bank scored the statistical system of Cambodia at a rate of 60 in 2019, on a scale 0-100. As

a comparison, for the same year, Thailand has a score of 80, Vietnam 79 and Lao 68. For all these countries, the trend has gone downwards these past few years, but Cambodia never exceeded 77. Thus, when conducting studies, you often need to produce primary data, because even some of the available secondary data are sometimes not accurate for several reasons, and are more often than not outdated. This is an important problem, mainly because Cambodia is a developing country and what may have been true 20 years ago is no longer reliable. Indeed, with regard to the growth of Phnom Penh's population, which has increased from 568,000 inhabitants in 1998 to more than 2 million today, for example, it is obvious that using 20 years old reference data would lead to a lack of robustness of the results. Due to the issue of data availability, carrying out its own study was a better way to obtain knowledge from the target communities in which the project is currently working.

Thus, the project has already conducted several studies, in connection with the precarious communities of Phnom Penh. These participate in developing knowledge and skills in terms of information capitalisation within PE&D. The socio-dynamics study of the urban poor communities, not yet published, analyses in details various aspects of communities of interest. Indeed, this study provides a better understanding of their history, dynamics and evolution.

C. Phnom Penh' context of study

In order to have more accurate information about life in these communities and to better understand their history and functioning, a study was carried out by PE&D on five of the communities in which the NGO is working. This study has made it possible to highlight certain elements of interest for a better understanding of the functioning of the intervention zones. The evaluation was carried out among 419 inhabitants of 5 precarious communities, between 2019 and 2020. Through the responses, it is easy to see that a significant wave of migration took place in the 1990s, a period in which Phnom Penh saw a proliferation in the number of precarious settlements. A very interesting element revealed in this study is the willingness expressed by the inhabitants to stay in these communities over the long term. This is not a transitional stage, despite the fact that these are mostly informal and illegal settlements. This element reinforces the idea that it is necessary to work to improve the living conditions of these inhabitants and gives more credibility to local

actions, undertaken by community members, with or without the help of NGOs, and to accompany them towards greater empowerment.

1. General information: settlements location and description

Phnom Penh's precarious neighbourhoods are mainly located close to rivers, lakes or the city's sewage disposal system. Still others are built on roads or railway tracks, or on the roofs of certain buildings in the capital (STT, 2014). As far as the communities in which PE&D works are concerned, they are also mostly located on riverbanks and old lakes, which increases the risk of flooding during the rainy season as the water level rises, and makes these families even more vulnerable. Most of this land is public land, sometimes owned by the government and some is privately owned and leased to the inhabitants.

The socio-dynamics study of the Phnom Penh urban poor communities confirmed the information gathered during the pre-assessments carried out by STT, People In Need (PIN) and UNICEF, as well as by the Municipality of Phnom Penh, which highlighted the very precarious housing conditions in these communities; in fact, according to the recent study, only 20% of the dwellings are built in concrete, and more than half are made of tin walls. The habitats are not very solid and face flooding every year during the rainy season, as well as insects that devour wooden columns. Housing is essential to foster a healthy development environment and this is something PE&D continues to work on.

2. Socio-economic situation

The study carried out by PIN and UNICEF revealed that the level of poverty is not the same in all communities, which shows that an analysis generalised to all communities does not seem relevant. However, it remains true that in general the inhabitants of precarious communities are on average less wealthy than the other inhabitants of the capital. However, it remains true that in general the inhabitants of precarious communities are on average less wealthy than the other inhabitants of the capital. These people are generally low-skilled, and mostly work as construction workers, rickshaw drivers, domestic workers, or in informal jobs for which they have no protection, such as trash collectors and vegetable sellers.

3. Infrastructures

Depending on the studies and periods, the assessment of the level of infrastructure is different. The Municipality of Phnom Penh conducted "The Phnom Penh Urban Poor assessment" in 2012, which revealed that among the 516 they surveyed, 30% didn't have a decent sewage system and 40% did not benefit from a proper garbage collection system.

STT, in 2014, revealed that the is a difference in the quality of the infrastructures between inner and outer Khans, revealing that the situation is even worst in the outer khans, particularly in terms of drainage and garbage collection. Those elements, and more broadly 'sanitation and environmental hygiene' have already been pointed out as major concerns by the MPP during the large study they conducted: 'The Phnom Penh Urban Poor assessment' were they found out that 30% of the areas identified were not equipped with a decent sewage system and 40% did not benefit from regular garbage collection system. Also, 15% of the dwellers didn't benefit from connection to water source. STT 2014 concludes giving some recommendations the MPP should apply to improve the urban settlements quality of life, above all concerning infrastructure construction and or improvement, as 'drainage systems, trash collection and widespread connections to state run water and electricity'. However, during our recent interviews, we noticed that water and electricity supply is rather satisfying in the communities we are working in. In Daeum Cham community, 30 families use private water supply, and 50% of the households in Preak Takong 1. All the remainders use PPWSA, the public supplier. Barely no water shortages have been declared. Concerning the furniture of electricity, it is quite the same: almost all the households benefit from EDC, the public supplier, only 10 households have been reported to use private supplier, and few shortages, as in the rest of the city.

4. Health, education and child protection

Living in informal areas makes them vulnerable, and access to education, health and child protection services is more difficult. People In Need (PIN) and UNICEF, in their 2015 study, showed that among precarious commuters, there was a prevalence of growth problems in children, due in particular to problems of mal-nutrition and a greater number of illnesses. It is true that these

communities live in an unhealthy environment, with rubbish piling up around houses, the absence of a sewage system, and the lack of individual sanitation facilities.

School is theoretically free in Cambodia. However, parents must be able to cover the costs of transport, school uniforms and supplies, and teachers' hours to receive tutoring outside of school hours, as the teaching provided by public school teachers is generally not sufficient to enable a diploma to be obtained. In the socio-dynamics study of the Phnom Penh urban poor communities out of 410 respondents, 75% of the women and 43% did not go beyond primary school.

* *

*

The context of urbanisation in Cambodia in recent decades is particular and needs to be studied in order to be able to understand the challenges facing the country today. The intervention zones are sensitive areas, with a vulnerable population and for which it is essential to have a good understanding of the issues at stake in order to be able to envisage appropriate areas for improvement.

The following section therefore focuses on the methodology used in this study, in order to study in detail the perception of the inhabitants on certain aspects that may impact on their quality of life in the communities.

II – Methodology

In order to complete the study cited above and to understand in greater details what are the main issues facing by the inhabitants, and what profiles are emerging among the communities, this research work uses Q Methodology, a methodology developed by the psychologist and physicist William Stephenson.

A. Q Methodology: choice of the methodology and design of the topic

According to Taylor, in his books review of 'The Study of Behavior – Q Technique and its Methodology' written by Stephenson, the Q-methodology integrates both "psychology, statistics and philosophy-of science principles". Stephenson highlighted the importance of curiosity to make our own discoveries. For him, human curiosity is under estimated and this takes precedence over hypothetical-deduction methodology. According to Leong (2015) 'Q methodology condenses the variation of views, opinions and ideas into a set of basic positions, problems definitions or dimensions underlying the debate'. The main idea behind the use of this methodology is the study of the subjectivity of individuals. Indeed, everyone has their own perception, through their experience, and it is interesting to understand what is at stake for these inhabitants. The outside view that one may have of these communities may not reflect reality, and that is why it is essential to look at the subjectivity of the main actors involved.

Furthermore, this methodology has already been tested during the master's degree on the study of the quality of life in priority neighbourhoods in Nantes. It was then an opportunity to test the method for the first time in real application conditions, and to understand the difficulties, in particular via the application protocol, which must be as clear and explicit as possible.

This methodology then appears to be quite suitable for studying the dweller's subjectivity, in order to understand real concerns of the population who actually lives in the community. It is true that most of the time external actors are those who take decisions about the urban poor areas' improvement in terms of facilities, infrastructures, and so on. Sometimes, even without regarding the dwellers needs, or without asking them what they really need. To ask the voice of the beneficiaries makes the results more robust and give them the opportunity to say what are really their main concerns. Then it can appear more clearly what are the priorities, and where each

external actor can play a role or take action, as the Government, the local authorities, the commune councils, and the NGOs.

As mentioned above, this methodology is based on the subjectivity of individuals. It calls upon them to reveal their perception of a subject, through the classification and prioritisation of elements in relation to each other. The idea is thus to understand which elements individuals agree or disagree with on a given subject. This methodology has been applied to different areas. It is based on a factorial analysis of the different responses of individuals, in order to pool similar patterns of thinking and thus to better understand how individuals think, according to the different profiles into which they have been integrated.

B. Design of the study

As a follow-up to the study carried out previously and in order to go further in understanding the communities of intervention, the purpose of this study is therefore to look at the inhabitants' point of view on what represents, or not, elements that have an impact on the quality of life within these communities. The objective is therefore to obtain the residents' perceptions of how they perceive their situation, feelings, needs and priorities, while at the same time identifying respondent profiles based on converging opinions. For financial and time reasons, the study was not conducted in the eight communities where PE&D is currently working but only in three of them. Through the socio-dynamics study of the Phnom Penh urban poor communities, it has been shown that some communities have similarities, such as the communities of Preaek, Preaek Takong 3, Daeum Chan and Daeum Chan 1. The community of Preaek Toal appears more singular, given its rapid evolution in recent years and the strong presence of an NGO within the community. It was therefore agreed to focus the study on three areas of intervention: Preaek Takong 1, a community whose inhabitants' situation has recently been regulated and where they have been able to receive official titles attesting to their ownership, Daeum Chan, an informal community but tolerated by the local authorities, and Phum 5, a community settled on a public land, which is considered illegal and which is not completely safe from relocation or future eviction.

1. Design of the concourse

The first step in carrying out this study was the statements concourse. The concourse of statements stands for all the ideas related to the phenomenon of research. The objective here was to find out

all the elements that can have an impact; either positive or negative, on the quality of life in the urban poor settlements. All the statements found would not obviously be used in the Q-set, which means the final statements used for the application of the study, but the purpose was to get as many elements as possible in order to avoid missing some key parameters. The statements were issued from several sources, as the the socio-dynamics study of the Phnom Penh urban poor communities realized by PE&D in five communities, a literature review from different studies on urban poor areas, and interviews with one community leader in each targeted community: Daeum Chan, Preak Takong 1 and Phum 5. The table with the information obtained from the 3 communities' is available in Appendix 1.

Thanks to the Phnom Penh survey carried out by STT in 2018, several elements that could represent an impact have been identified. Firstly, it was reported that most of the communities surveyed did not have an adequate or even existing sewage system for rainwater and human waste. However, this was more of a problem for the outer Khan (58%) than for the inner Khan (6%). In addition, a significant part of the sewage disposal systems is taken care of by the communities themselves, sometimes with the help of local authorities, at the Sangkat (commune) level, or with the support of NGOs. Moreover, from the communities study previously carried out by PE&D, it has been noticed that 41% of the dwellers surveyed were not happy with the facilities in the community, which confirms to a certain extent that not all inhabitants have a favorable opinion of the current state of the infrastructures and facilities.

Regarding the community's accessibility, road access to settlements could be quite complicate. Indeed, there is often really small roads, most of them are wide enough to let only one motorcycle go by.

One of the major issues that seem to have important consequences for the dwellers are the flooding that appear each year during the rainy season. Half of the most affected by flooding was located in Mean Chey District, where Preaek Takong 1 is located. Most affected stands for flooding that takes more than four weeks to drain. Flooding also appeared to be a major issue concerning urban poor settlements, above all those which are located next to the river or other water source.

With regard to toilets, a large proportion stated that they had access to individual facilities, which contrasts with what we observed in our interviews with community leaders: in particular regarding Preaek Takong 1 and Phum 5, where the majority of the inhabitants would not have toilets in their

dwellings and would make their needs open-air. STT also noticed health issues in the urban settlements, apparently due to pollution from the water and from the air.

STT also noticed that there is a significant difference between inner Khan outer Khan regarding solid waste and trash collection. Through the community leaders' interview, it is true that notable differences were noted between the 3 communities studied with a collection service passing every day for Daeum Chan, and once or twice a month for Preaek Takong 1, even if both are located in outer Khans.

Crime and security, alcohol, drug abuse, domestic violence and petty crimes have been reported as the most important problems in terms of crimes and security in the settlements surveyed by STT. However, this point contrasts with the results obtained from the socio-dynamics study of the Phnom Penh urban poor communities. In fact, the responses obtained showed a fairly low crime rate, and very strong bonds of solidarity between the members of the communities. 98% of the inhabitants even declared that they did not feel any tension within the community.

Also, really interesting point have been raised during the interview with the community leaders. Indeed, unlike some points that have been identified in the course of reading, we can notice that water and electricity supplies are not such big issues anymore, at least for the communities surveyed.

On a more controversial subject, fears of eviction, STT highlighted the important number of settlements that faced eviction or pressure to relocate: 45% for the settlements located in the inner Khans and 37% concerning the ones in the outer Khans. About 40% of the settlements surveyed have declared facing threats of eviction, either formal, that means with a notification from the local authorities, with official proposition of relocation, either informal, through rumors (most of the time) and hearsay or verbal notification, mostly during community or village meetings. They also noticed that half of the settlements that received formal eviction notification are located next to water sources. The important proportion of settlements that received threats through rumors (around 50% of the eviction threats received) show that tenure insecurity is a very persistent idea for the dwellers of the urban areas. Phnom Penh is a still developing capital, so not surprisingly, and according to STT study, 79% of the eviction reasons were the area development, either by private investors or for reasons of public interest, with a greater share concerning private development than public development. The most notorious case of forced eviction was the eviction

of approximately 3,500 families living around Boeung Kak Lake in Doun Penh between 2008 and 2011. This event had created a major controversy and is also the reason why the presence of the police and the army to prevent NGOs and the media from visiting the area during the evictions is systematically disrupted.

The final concourse of statements has been represented in the table below.

Table: concourse of statements

Statement number	Description
1.	(Lack of) toilets
2.	(Lack of correct) sanitation
3.	Lots of noise, above all during the night
4.	Smells of garbage
5.	Smells of sewage water
6.	(Lack of) garbage collection
7.	Waste
8.	Road: small access to the community (motorbike)
9.	Strong wind that can damage the house
10.	Flooding
11.	Landside
12.	Food (not enough to eat)
13.	Money (lack of)
14.	Drug consumption (addiction)
15.	Insecurity
16.	Unsafe house
17.	Electric poles state (danger: fear of fire and electrocution)
18.	Distance from schools and administrative offices, public services

19.	(Lack of) leisure and cultural activities
20.	(Lack of) sport activities
21.	Diseases
22.	Relationships (with the neighborhoods)
23.	Pests
24.	Overcrowded areas
25.	Sleep (quality / deprivation)
26.	Domestic violence
27.	Alcohol
28.	In debt
29.	No job
30.	No official land title / fear of expropriation
31.	Drainage

For the final constitution of the Q-set, that means the statements that would finally be used for the application of the study, some elements have finally been removed from the concourse.

“In debt” and “no job” statements are highly linked to the money statement, more specifically concerning the idea of lack of money. Indeed, no job could be the cause, and lack of money the consequence. In debt is also a cause and consequence of lacking money.

The land title question, and consequently the fear of eviction, has also been removed from the final list for two reasons. First, it is a highly sensitive issue in particular with regard to the Cambodian authorities. Second, the targeted area for the application of the study are related to this question, as explained previously.

2. Q-set and P-set

The Q-set was then represented in the form of pictures, with photos taken directly within the communities, or via pictures on free and open access image banks (Pixabay). With regard to the photos taken in the communities, it was envisaged to include the community leaders by transmitting instructions to them so that they themselves take photos of the elements that have an

impact, whether positive or negative, on the quality of life in the communities. However, not everyone had the opportunity to take photos and the instructions were not fully understood. This idea had to be abandoned. Final Q-set pictures are presented in Appendix 2.

For the definition of the P-set, which basically means the study participants, a sample has to be defined. Sampling techniques include probability and non-probability sampling. The first one consists in a random selection; the second one appeals to the subjectivity of the researcher. Random sampling techniques are really useful when looking for generalization of the results, which is not the case here. Non-probability sampling techniques, when used for quantitative assessments, could be seen as used by default, because of the lack of availability of data on the population for instance[5]. As applying Q methodology, a mixed quantitative and qualitative method, non-probability sampling techniques would be more appropriate. Indeed, in practice, procedures are often easier, quicker and cheaper, which suits more with the financial and time constraints of the exploratory approach.

There are several techniques for non-probability sampling, among which we can find the quota sampling, the snowball sampling, which consists in letting people you reached diffuse the survey among their network, really useful when studying a sensible population as drug users for instance, or self-selection sampling, when we look for volunteers, as for drug trials or studies on physical activities for instance. For this study, the choice fell on the purposive sampling technique.

The purposive sampling[6] is based on the subjectivity of the researcher. Unlike probability sampling techniques, the purposive sampling is not a random selection, and is usually composed by a smaller number of individuals. Indeed, the sample is precisely defined, according to the objective of the study and the characteristics of the population. Within the purposive sampling technique, there are different methods to set the sample, among which the homogenous purposive sample, where people shared the same characteristics, the typical case sampling, that focuses on average members of the population of interest, about what is considered as 'normal' for a particular phenomenon, the deviant case sampling, that studies the outliers, the critical case sampling, the total population sampling or the expert sampling.

[5] Lund Research Ltd, 2012, Non-probability sampling.
[6] Lund Research Ltd, 2012, Purposive sampling.

The method used in this study is closed to the heterogeneous sampling purposive sampling. As an explanatory research, the purpose was to have a diversity of profiles, in order to see if there is divergence or convergence among the different categories of respondents. Moreover, the application of the Q methodology, which has also for purpose to create profiles regarding the similar thought patterns, appeals to the subjectivity, and choosing randomly a sample would not be relevant in this case. As a matter of fact, it was more interesting to identify characteristics of people in the communities that could have a different influence on the way of thinking.

Two criteria have been selected for the definition of the sample: the gender and the housing status. To set up the criteria, the following question has been studied: what could be the reason of having different points of view on a same topic? Regarding gender, it has been hypothesized that women are more often present inside households, and are the ones who generally carry out daily tasks such as cooking, cleaning and taking care of children on their own. Men are more frequently outside, and are likely to have a slightly different perspective on the situation. Related to the housing status (owner or renter), the assumption was made that owner would be more likely to have a long-term vision when compared to renter. And so, that the owners could be more concerned about long-term infrastructures, development of the urban settlements, as the roads improvement. It should be noticed the owner in this case does not mean official one, but an informal owner. In this study, no distinction was made between formal and informal owners.

3. Complementary variables: interview part

After the Q-sorting, the administration of the survey was followed by an interview part, in order to collect qualitative data. First, discriminating variables were used linked to the criteria of the purposive sample: community name, housing status and gender. Regarding the housing status, the idea of asking for how long the respondent has been renting the place came after few survey administrations. Indeed, this information could be interesting because being a renter for ten years or for the past few months could modify the idea of long-term or short-term vision as established during the purposive sample definition.

Complementary variables were also introduced in the interview part to get a clearer picture of the respondent profile. First the age, in order to identify if there is a generation gap in the way to think about the statements that impact the quality of life in the communities. Another question was related to the community mobilization, asking if the respondent was a member of the residents'

committee. Finally, in order to better understand how the main concerns are dealt with in the communities, respondents were asked if they already talked to someone about the two main issues they identify, and if yes, to whom (family members, neighbors, members of the community committees, local authorities, social workers, and so on).

4. Testing phase and survey administration

a. Testing phase

Before the on-field administration of the survey, a testing phase is not negligible to identify problems of any kind: misunderstanding of the instruction, pictures not representative, etc.

To make it easier to understand, it is envisaged to put a few words as captions on the picture, but not directly on the front. Indeed, in case captions are used, they would be placed on the back of the image. This would make it possible to identify images that were more difficult for respondents to interpret. This could be due to the fact that either they have never heard and seen such a phenomenon or object, or they have heard about it but have never seen it: in case they would be able to identify it thanks to the caption, but without using (only) the image.

The test phase was carried out through different networks, first between PE&D colleagues, including external to the project, the project leader and course supervisor Pierre Larnicol, the supervisory teacher Claire Gauzente-Juguet, and finally to three members of the targeted communities.

The test phase identified several weaknesses, concerning the administrative process and the set of questions. First of all, the protocol for presenting and explaining the survey appeared confusing. The instructions should be clearer in order to maximise the relevance of the survey and avoid misunderstandings as much as possible. Indeed, this point is really important and had already been emphasised at the start of the work on this study, as it has already been identified in the case of the Nantes study that misunderstandings can easily arise in this case study and that the results are then not exploitable.

Secondly, some images seemed unclear, or even represented unrelated ideas. This was mainly the case with images representing statements number 6 and 15, respectively designed to represent a

drainage system and (lack of) money. After reflection, new pictures were taken and used for the Q-set.

Conclusions from the test phase:

- Management protocol: need to ask for a preselection, create two heaps: has an impact / doesn't have an impact.
- 2 options of the extreme sides are enough.
- No need to include the disability issue.
- Pictures of 'drainage' and 'money' statements have been be changed.

b. Survey administration

The administration of the survey was individual. The duration per participant was between 20 and 40 minutes. The study was administered in Khmer by the research assistant, who participated throughout in the construction of the study and the Q-set. Respondents were first asked to sort the images into two heaps: those that, in their opinion, represent elements that have an impact on their quality of life in the community, and those that do not, again according to their point of view and experience. This step was important for two reasons: it allows respondents to read the images one by one, and therefore to be more focused, and secondly it reduces the mental load by making a pre-selection. This step was inspired by the Nantes case study.

Respondents were then asked to rank the images on the response grid. This step took more or less time depending on the participants. Once they had completed the grid, they had a few minutes to look at it carefully and make any necessary changes. The results, in the form of a Q-spell, were photographed.

The Q-sort was followed by the interview part, divided into three steps: discriminating variables, comments on both sides of the extremes and complementary variables. A total of 16 individuals were interviewed in each of the 3 communities, trying to have at least two people in each category.

The individuals interviewed according to community, gender and housing status were listed in the table below.

Study application in Preaek Takong 1

Study application in Phum 5

Study application in Daeum Chan

Summary of respondent profiles by gender and by housing status:

Preaek Takong 1	Owner	Renter
Women	8	1
Men	2	5

Phum 5	Owner	Renter
Women	6	4
Men	4	2

Daeum Chan	Owner	Renter
Women	7	3
Men	3	3

Number of respondents per Community:

Community's Name	Preak Takong 1	Phum 5	Daeum Chan	Total
Number of respondents	16	16	16	48

The Q-sorts of the individuals were then coded as follows: first, the administration number of the study, from 1 to 48. Second, the abbreviated name of the community, DC for Daeum Chan, PT1 for Preaek Takong 1, and P5 for Phum 5. Finally, the gender and status of the house were indicated: FO for Female Owner for example, and MR for Male Renter.

* *

*

All the Q-sorts of the individuals as well as the information obtained during the interviews are available in Appendix 3.

III - Results and discussions

A. First results from the KenQ data analysis

The results have then been exported to the KenQ data analysis software, an open software specially designed for the study of Q-sorts, that uses factor analysis. An excel file containing all the information obtained from the factor analysis carried out using the Ken-Q software is also available as an attachment to this thesis.

1. Correlation matrix

The first part of the results study consists of the presentation of the correlation matrix, where one can observe how the different points of view converge among the respondents. The values are expressed in percentages; positive values correspond to a convergent opinion and negative values to a divergent opinion. The closer it is to 100%, the better. Using the factor analysis method, the software will analyse the Q-sorts of each respondent and find similarities between them. The results of all the similarities are presented in a correlation matrix, which displays the percentage of correlation between the different respondents according to their Q-sorts: the classification of the statements on the response grid.

As it shows very similar opinions, each individual is correlated with himself, and therefore has an autocorrelation score of 100%.

Thanks to the correlation matrix, we can see that some individuals share the same points of view. Indeed, many community members share between 60 and 80% of the information, comparing their Q-sorts. For some, this is as high as 87%.

In the negative, meaning that people think differently, they put the same statements in roughly the same place on the response grid, but in the opposite direction: left for one, right for the other. The correlation of opposite points of view reaches 31%. One individual (9 PT1 FO) appears as "atypical" because the respondent has 18 negative points. This means that this person has an opposite way of thinking when comparing his Q-spell with that of other respondents. This person thinks in an opposite way of 37.5% of the total P-set.

2. Factors extraction

The objective of the following section is to extract the factors that summarize certain information from the respondents' Q-sorts. Each factor is a linear combination of the respondent's answers, and allows a certain part of the information contained in the data to be reconstructed. The objective is to have as few dimensions, or factors, as possible in order to concentrate this information as much as possible. The more dimensions used, the more dispersed the information will be.

To extract these factors, two methods can be used. The first proposed is the extraction of centroid factors, the method used by W. Stephenson, who developed the Q methodology. It is based on hand calculations, as no other technological possibilities were available at the time. The second, the principal components method, uses a more precise algorithm, which allows faster and more complex calculations. Thus, the principal component method was used for this study in order to gather solid information.

Usually the first factor is supposed to give about 50% of the information. In this case, the first factor gives only 38% of the information. The principal components method extracted eight factors; they are presented in the table below.

Extraction of eight factors using the principal components method

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Eigenvalues	18.19920166	3.96728586	3.00725475	2.75602387	2.50542055	2.12917507	2.04931704	1.61235943
% Explained Variance	38	8	6	6	5	4	4	3
Cum % Expln Var	38	46	52	58	63	67	71	74

The cumulative % of variance explained for factor 8 is 74%, not 100%. This means that other factors are not included, as the purpose of this work is to examine the main components.

To select the number of factors that would be retained for further analysis, two criteria must be verified:

- Own values
- Cumulative % Difference explained

The eigenvalues of the selected factors must be greater than 1. With regard to the above table, all eigenvalues are in fact greater than 1, including the last one. As mentioned earlier, this confirms the idea that there are other factors and that perhaps the 9th and 10th factors would also have an

eigenvalue greater than 1, but once again we are only looking at the main factors. For this criterion, all 8 factors could be retained.

With regard to the second requirement, the aim is to retain as few factors as possible but also to obtain the best possible level of information. Usually, the lowest cumulative level of information is 50%, and it goes up to 60% / 70%. A cumulative level of 75% would be the best to obtain the maximum amount of information possible. In this case, keeping 3 factors would mean keeping only 52% of the information. To obtain a good level of information, the pre-selected factors would be factors 4, 5 and 6. Other tests would then be carried out by selecting factors 4, 5 and 6.

3. Factor rotation

There are also two ways to achieve the rotation of factors, i.e. the way they move in space to create the best combination of Q-sort correlations within a dimension. The first method is the judgmental one, based on graphical and manual technology, which only performs the rotation two by two factors. With the development of computing technologies, it is now possible, and easier, to apply Varimax rotation. The latter uses an orthogonal orientation, a more robust standardised method. Thus, Varimax was applied for this study in order to obtain more accurate results.

4. Flagging

It represents the composition of each factor. In other words, the flagging step makes it possible to determine what proportion of each individual's Q-spell has been selected to construct each factor. The KenQ software allows the marking to be carried out automatically. In the tagging table, one can see the percentage of participation of each individual in the construction of the different factors. It should also be noted that some individuals have a fairly close participation score for several factors. As the use of the automatic flagging method, they would be deleted automatically. It may also be interesting to keep them and "force" them to participate in the construction of the factor, if relevant. For example, if the respondent has a strong opinion on a separate statement.

Moreover, if a factor is composed of only one person, it is not relevant to keep it. Indeed, the factors must come from common points of view. Otherwise, it is possible to keep the factor composed by a single person and analyse it separately, if the information revealed is relevant. In this case, the selection of 6 factors involved a factor composed by only one person: factor 6. This

factor is composed of 3 persons, 2 of whom are also involved in the construction of other factors. The information provided by these 2 individuals does not seem relevant enough to be retained for the construction of a 6th factor.

5. Factors construction

Example of reading the construction of the first factor

No.	Respond.	FG	Ftr 1	flag	Ftr 2	flag	Ftr 3	flag	Ftr 4	flag	Ftr 5	flag	h^2
17	17 P5 MO	F1-1	0.79738	☑	0.25469	☐	0.13736	☐	-0.06744	☐	0.08379	☐	0.73112
18	18 P5 FO	F1-2	0.78939	☑	0.28558	☐	0.13388	☐	0.38169	☐	-0.02893	☐	0.86914
48	47 DC FO	F1-3	0.76947	☑	0.43348	☐	0.01565	☐	0.13331	☐	-0.1129	☐	0.81075
22	22 P5 FO	F1-4	0.7562	☑	0.22223	☐	0.3203	☐	0.16314	☐	0.16914	☐	0.77904

Reading: 79% of the information is given by the Q-spell of the respondent 17 P5 MO. In fact, the table can also be read in columns: to construct the factor number 1, we can take the information from each respondent. But the aim is to obtain synthetic factors, which highlight the main ideas.

Interpretation of the factors: The respondent 17 P5 MO contributes 79% to the first factor, which means that the Q-spell of this individual gives a lot of information to construct factor 1. This same person does not give much information for factor 3: only 0.13. We can note the negative score of -0.067 for the construction of factor 4. A negative score means that the Q-sort of the individual takes information away from the factor. But in fact, removing information also constitutes information.

When a factor is constructed from positive and negative scores, i.e. some people contribute to giving information and others to suppressing it, it is called the bipolar factor. The bipolar factor must be analysed carefully because the opposition of points of view between respondents can lead to two factors: one with positive scores and the other with negative scores. The elements are important for both, but the justification is not the same. The interpretation would be made separately.
In this study, there is no bipolar factor among the selected factors.

Example of reading the construction of the fifth factor

34	27 DC FO	F5-1	0.55318	☐	0.05503	☐	0.0104	☐	-0.07036	☐	0.73391	☑	0.85272
6	6 PT1 FO	F5-2	0.03096	☐	0.34016	☐	0.08574	☐	0.16954	☐	0.7288	☑	0.68391

In the case of the selection of 5 factors, the individual 27 DC FO participates for 73% in the construction of the 5th factor, but also contributes for 55% to the 1st factor, which could be confusing because the individual puts a lot of information in two different factors. In order to identify the relevance of not communicating this respondent's information, the calculation would be made with and without taking the individual into account. Finally, when comparing the shape of the two synthetic Q-sorts of factor 5, there is no major difference.

6. Final selection of the factors

With the exception of the first factor, which gives 38% of the information, the following factors give little information: from 6% for the second factor, to 3% for the eighth.
With regard to the previous criteria, the pre-selected factors were factors 4, 5 and 6. Tests were then carried out on these factors in order to identify the final number of factors that would be retained for further analysis.

6 factors selected: The 6th factor was finally composed by a single individual (43 DC MR). Indeed, the two other respondents (2 PT1 MO and 3 PT1 MO) who provided information for factor 6 also provided a large part of the information for two other factors. The purpose of these factors, as mentioned above, is to have shared views. In this case, therefore, it does not seem relevant to keep factor 6. It can be noted that this factor consists of male perspectives. In addition, there are no distinctive statements in Factor 6, with the exception of statement number 24 (washrooms) in -2. Given this information and the fact that we are trying not to expand the number of factors too much in order to concentrate the information, it does not seem appropriate to retain 6 factors.

As the choice between 4 and 5 factors was more difficult, a first speculation was made for both. Indeed, another criterion for the selection of factors is interpretability. We are looking for clear ideas that make sense. If there is no clear distinction between the factors to interpret the different points of view, it is better to change the number of factors selected and have a clearer idea of the

meaning of the factors. Several tests of interpretation have been carried out. In the end, the choice was made for the conversation of 5 factors whose interpretability appears clearer than in the case of the selection of 4 factors.

Table: elements of comparison between the selection of 4 or 5 factors

Number of factors selected	4 Factors	5 Factors
Eigenvalues	2.75602387	2.50542055
Cumulative % Explained Variance	58	63
Total number of Q-sort (individual answers) used to build the factors	42	41
Interpretation	Less clear-cut ideas, and the factors seem to be fairly interrelated	Several distinguishing statements, easier degree of interpretation with less similar factors

5 factors selected: As selecting one less factor, the cumulative level of information is reduced from 67% to 63% compared to 6 factors selection, but the information within the factors is more concentrated.

B. Presentation of the different profiles

In order to identify the main points of the synthetic Q-sort, and to make some speculations on the construction of the profiles, some statements have been grouped in different categories, concerning the personal point of view of the author. The statements have thus been organised according to what they could represent. Five main categories were thus identified, such as the level of impact of the statement on society and the level of risk it represents. The different categories identified were presented in the table below.

Table: Q-sorts statements by theme

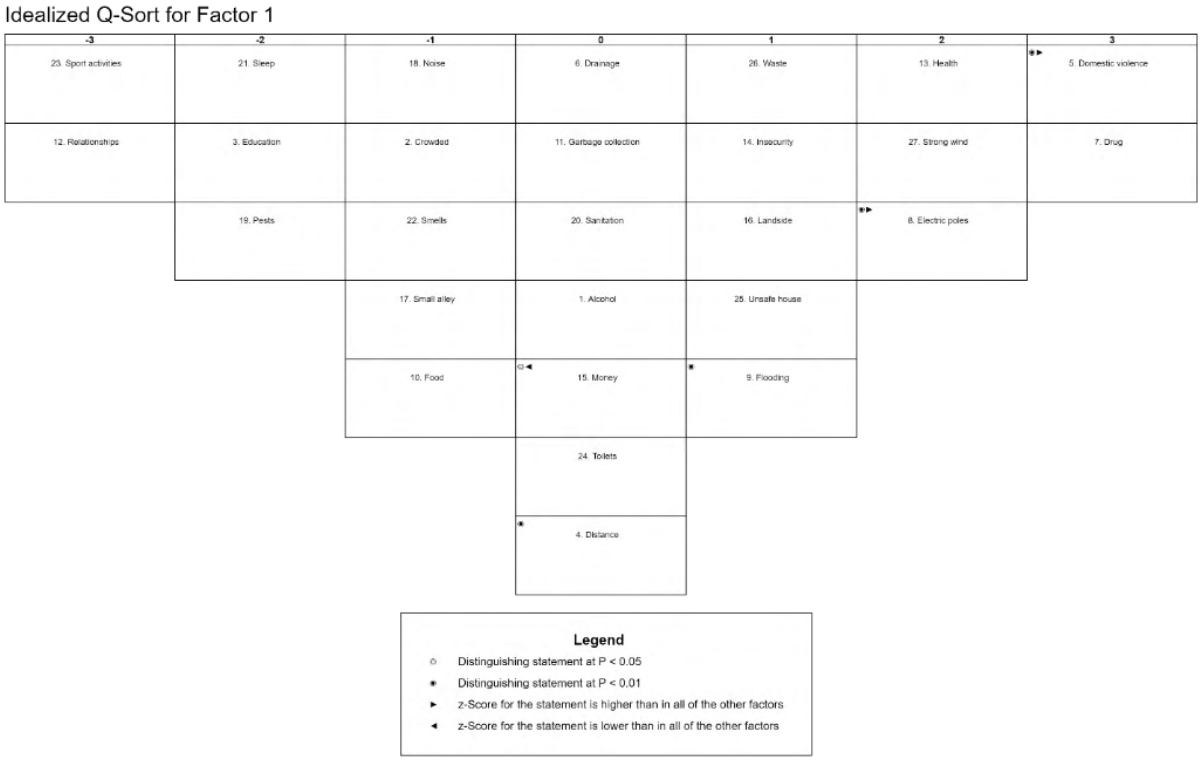
Theme	Q-sort statements
Households level	1. Alcohol
	5. Domestic violence
	7. Drug users
	10. Food
	12. Relationships
	13. Health
	20. Sanitation
	21. Sleep
	24. Toilets
Community level	2. Crowded
	3. Education
	4. Distance
	6. Drainage
	8. Electric poles
	11. Garbage collection
	14. Insecurity
	17. Small alley
	18. Noise
	19. Pests
	22. Smells
	23. Sport activities
	26. Waste
Natural disaster	9. Flooding
	16. Landslide
	25. Unsafe house
	27. Strong wind
Health and danger	1. Alcohol
	5. Domestic violence
	6. Drainage
	7. Drug use
	8. Electric poles
	9. Flooding
	10. Food
	13. Health
	16. Landslide
	25. Unsafe house
	26. Waste
	27. Strong wind
Facilities and public services	3. Education
	6. Drainage
	8. Electric poles
	11. Garbage collection
	17. Small alley

The identification of these elements within the synthetic Q-sorts then made it possible to produce some groups of ideas, according to the category into which the different statements were sorted. As a result, speculations were made on the profile of the factors, which would then be confirmed or refuted by analysing the comments made by the participants on each factor. A first speculation was made by the author, then a discussion was held afterwards with the research assistant, to go further in the analysis.

The following section sets out the various stages of the analysis, factor by factor.

1. Factor 1: Safety first

Factor 1 synthetic Q-sort



a. Description

At the extreme right, the synthetic Q-sort of factor 1 presents domestic violence as a distinctive sign. Drugs are also a major assertion in this factor, followed by health, strong wind and electric poles. On the left, sports activities and relationships may appear as elements which do not impact

on the quality of life of the members of the community. In the middle column, money appears to be placed more to the left than any other factor. On the contrary, electric poles appear to be more important than the other factors.

b. Speculation

Author: Two points stand out mainly from this factor. Firstly, on the right-hand side, it is clear that statements relating to health are almost all present, whether mental or physical health. In addition to the idea of health, there are images related to the notion of danger, such as natural disasters, power poles, insecurity, as well as domestic violence and drugs. It can be assumed that images representing negative aspects are considered more important than others. On the whole, collective activities and community-related elements are part of the left side. Collective services, such as rubbish collection, or infrastructures, such as drainage or small alleys, do not appear as major impacts in relation to the synthetic Q-sort of factor 1. With regard to all these elements, this factor is characterised by the strong idea of danger, and the desire to feel safe flows from it. This factor will therefore be qualified by the idea of "safety first".

Author and Research Assistant: The left side can also represent everyday life, and seems to be less important than ideas related to health and danger. Indeed, there is an idea of priority. If the elements on the right side could not be completed, then the elements presented on the left side are obsolete, and therefore could not be realised. There is probably an idea of survival. In the middle column, the interpretation may be that people need these elements, that they are important to them, but that their presence or absence does not represent an immediate danger. After surviving the first elements on the right side, they can then think about the elements in the middle, which is the most important thing to live for. Finally, the left side is about comfort. In summary, the assumption on this profile is that community members first ideas focus on the question of survival, followed by the idea of what is important to live, and then, as less important elements, what is related to comfort, which comes at the end.

It should be noted that this first factor is the one that brings together the most individuals. That is to say, the majority of the views of the individuals studied are found in this factor.

c. Comments

Regarding the commentary of the respondent whose Q-sort has the highest sorts weight in the construction of the first factor, the respondent 17 P5 MO, we find the idea of death if the individual 'takes drugs over a long period of time'. He said he already talked to family members about drug and domestic violence issues. through the commentary of the individual 22 P5 FO, we find the use of the word 'death': about the statement Unsafe house, she said: ‘It can collapse and people can die’. Similarly, for the individual 29 DC FO, she declared about the Flooding: ‘It is difficult to access and children can die’. The idea of death and danger linked to electricity poles is also present in the 30 DC FO, 31 DC MR, 43 DC MR and 46 DC FR individuals’ mind.

In a more general way, the ideas of consequences that statements can have on health are well reflected in the comments.

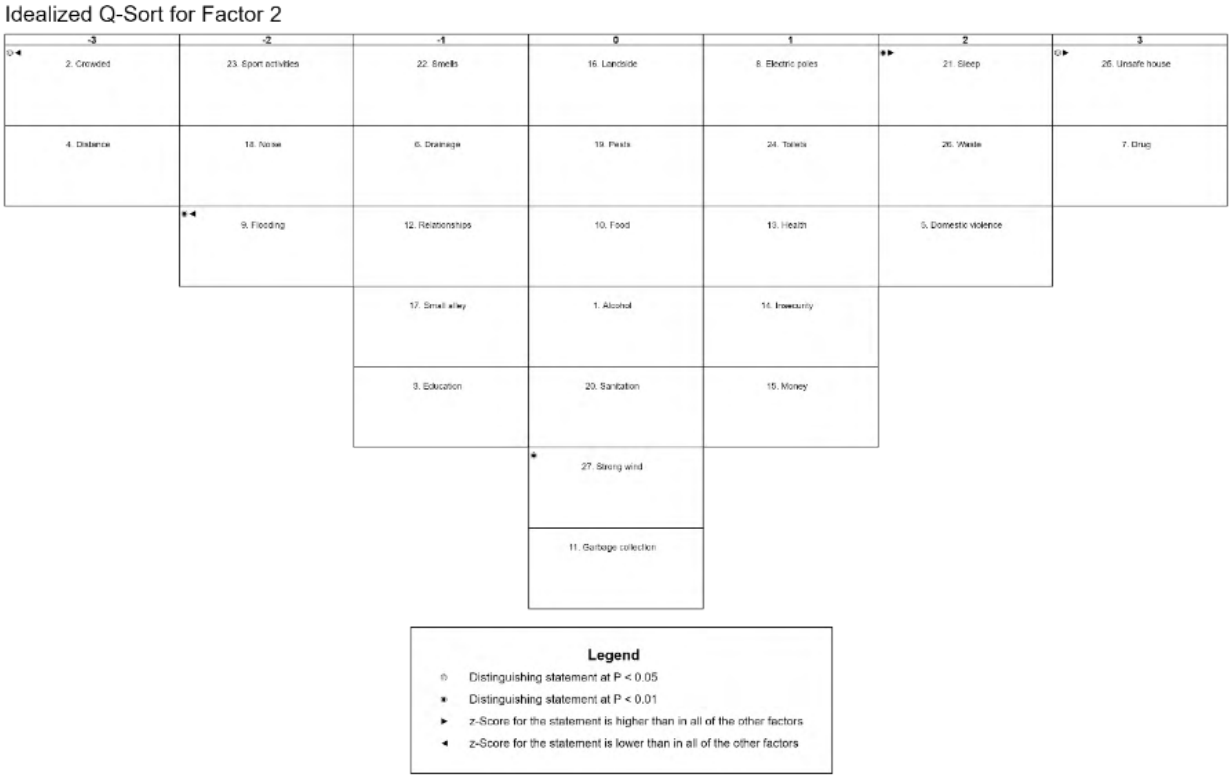
Out of 16 individuals interviewed in Daeum Chan, 12 are in this factor. This gives the impression of a feeling that is really shared by members of this community, both women and men, as well as landlords and tenants.

d. Confirmation

The idea of danger is really present within this factor, in view of the comments. The presence of the word 'dead' in many comments only confirms the previous speculation. It would seem that this idea is quite present in the Daeum Chan community, more than elsewhere.

2. Factor 2: The Individualists

Factor 2 synthetic Q-sort



a. Description

With regard to the second synthetic factor, it can be observed that the statement on dangerous houses, on the extreme right, is predominant over the other factors. Moreover, sleep placed in column +2, seems to be much more important for those who participated in the construction of this factor than for the others. On the contrary, overcrowding appears to be less important compared to the other synthetic Q-sorts, as well as to the flood report.

b. Speculation

Author: If, at first glance, the factor 2 seems close to the first factor, there are elements to draw a different profile. Indeed, a first point to note is that this factor seems less concerned by natural disasters, such as floods, placed in -2, and strong winds and landside in the middle column. Overall, it can be noted that the right-hand side of the synthetic Q-sort, the elements having an impact, are

mainly related to individuals and households, while the left-hand side mainly concerns declarations at the collective or community level. For example, crowed is much less considered as an impact, while sleep has a higher score. These elements reflect a certain priority of the individual over the collective. By presenting the unhealthy home, drugs, domestic violence and as the main concerns, this profile seems individualistic, but in the sense that it gives more importance to the well-being in the home than to that of the community.

Author and Research Assistant: Health issues are also an important concern for this profile, perhaps because good health conditions are necessary for working and earning money. Ideas of danger and ideas of need seem to be linked. One hypothesis is that, as community members seem less concerned about flooding, drainage and even ideas of overcrowding, this profile could be constructed with mainly people from Preaek Takong 1, with regard to the characteristics of this community.

c. Comments

Regarding the respondent, 3 PT1 MO he declared that 'flooding does not happen anymore in the community because the land has been filled to construct the buildings around'.

As far as the individual 13 PT1 FR is concerned, we can notice a contradiction in the comment. Indeed, about the smells she said that 'It is ok for her because she has adapted with smells over there'. But about the waste she also said that 'It creates bad smells and affects public health'.

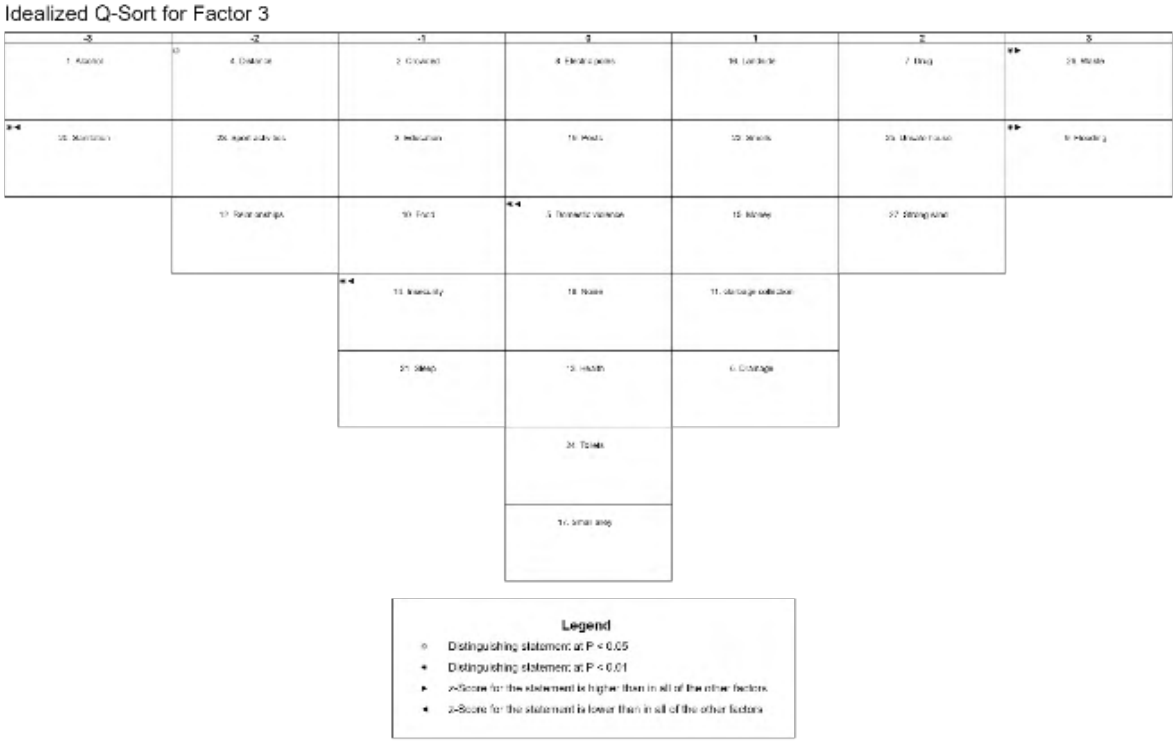
If we look at what the individual 15 PT1 MR thinks, we notice that the argument is indeed rather individualistic about relationships: 'It is not important because he is already on good terms with everyone'. As well as for respondent 33 P5 MO who said about crowded statement 'It is not a problem because he did not see the impact' and regarding distance 'It is ok for him'.

d. Confirmation

Out of 8 participants to the factor construction, there is indeed a majority of 5 members from the community of Preaek Takong 1. There are as many tenants as owners making up this factor. A number of comments confirm the idea that some individuals give priority to elements related to individuality, or even the home, over collective elements. Perhaps it can be envisaged that this is a common feeling among the members of Preaek Takong 1.

3. Factor 3: The Masculine profile

Factor 3 synthetic Q-sort



a. Description

Waste and flooding are the main concerns of this third factor, and their z-scores are higher than those of all other factors. The presence of other natural disasters can also be noted on the right-hand side. Utilities and infrastructure appear to be quite important from the respondents' perspective. On the other hand, sanitation, alcohol, sports activities and relations are less of a concern.

b. Speculation

Author: The importance given to both natural disasters and waste and, to a lesser extent, to refuse collection, drainage and odours, tends to show a sensitivity of this factor to the nearby natural

environment. On the other hand, the under-representation of statements of internal well-being as major impacts on the quality of life can be noted. Indeed, sanitation is not only presented as the least impacting factor of this synthetic Q-sort, but its z-score is also lower than that of all other factors. In addition, domestic violence, as well as insecurity, are under-represented compared to the other 5 dimensions.

Author and Research Assistant: The lowest position of domestic violence within this factor could be explained by the fact that it may once have been a significant problem, but this is no longer the case. On the other hand, as far as insecurity is concerned, it is assumed that some places are equipped with street lamps which illuminate the streets and thus reduce the feeling of insecurity. These elements lead us to believe that this is a rather male profile. Indeed, in the community, women are more likely to take care of children, prepare meals, do chores, and therefore they are probably more concerned about hygiene than men. Women are generally more present in households than men. They are more regularly outdoors. Women and men may not see and perceive the same problems regarding the quality of life in the community.

c. Comments

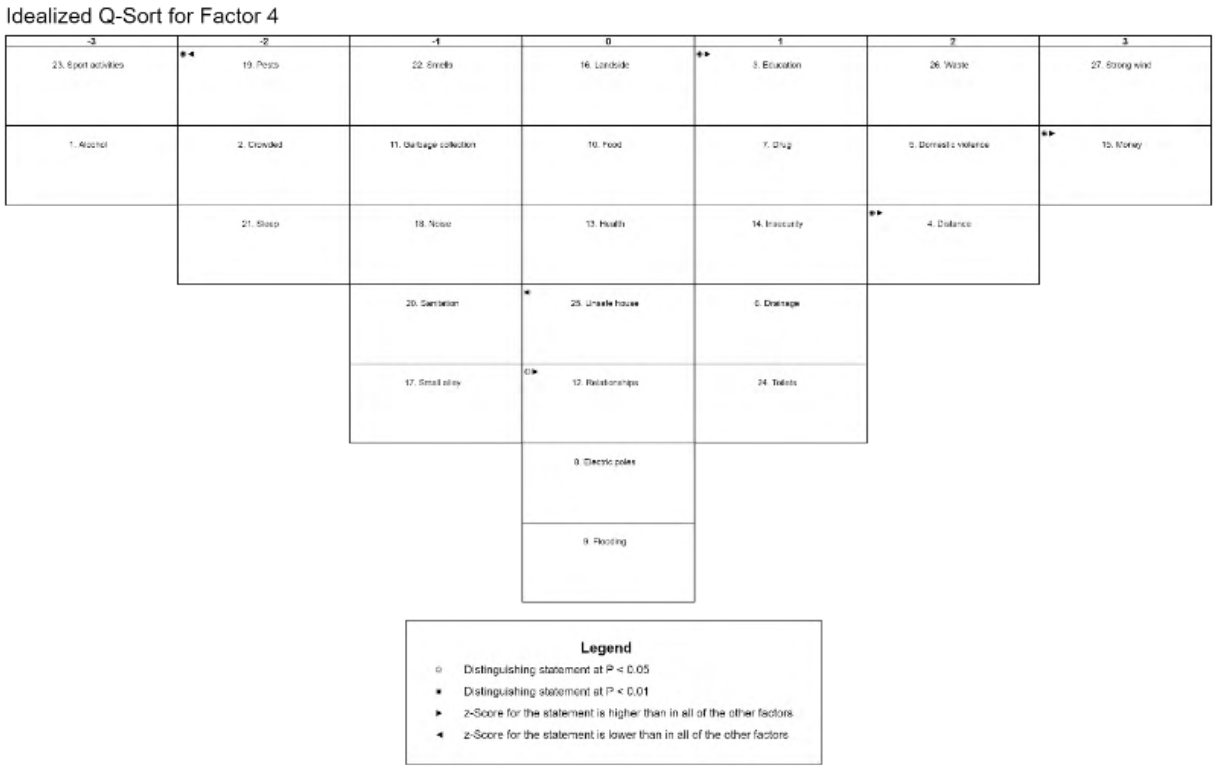
Regarding the individuals comment, 2 PT1 MO said that 'for toilets he can find wherever a place both outdoor and indoor, or even neighbors.' 16 PT1 MR respondent declared about that 'he can rearrange to make it better to be healthy.'

d. Confirmation

Out of 5 individuals, 4 are indeed men. There is no real explanation to be given on this point, but it would seem that the external environment is an element that concerns men more than women within communities, without distinctions between the latter or between owners and tenants.

4. Factor 4: Economical concern

Factor 4 synthetic Q-sort



a. Description

This factor underlines the importance that money can have as a consequence on the quality of life of the inhabitants, with the statement of money scoring higher than the other factors. Education and distance education are also presented as having an impact, and are higher than the other 4 dimensions. Natural disasters appear in the middle column. Alcohol, sports activities and pests are on the far left.

b. Speculation

Author: As presenting health-related statements and natural disasters in the middle column, one can imagine that there is a kind of neutrality regarding these elements. While on the contrary, money, education and distance are elements which represent a rather strong impact. The main idea that emerges from all this is the importance of the economic aspect. Indeed, distance can for instance be perceived as distance to commute to work. On the other hand, education is considered

to be one of the best ways to get a job, and even more so if we talk about qualified employment, offering a better salary.

Author and Research Assistant: the importance given to the distance statement could be explained by the fact that the community is located far from the place where dwellers want to go. Education is also directly related to money, as even if public schools in Cambodia are free, the level of education is too low and does not allow students to take their exams. In order to have a chance of graduating, students generally use tutoring, which has a cost.

c. Comments

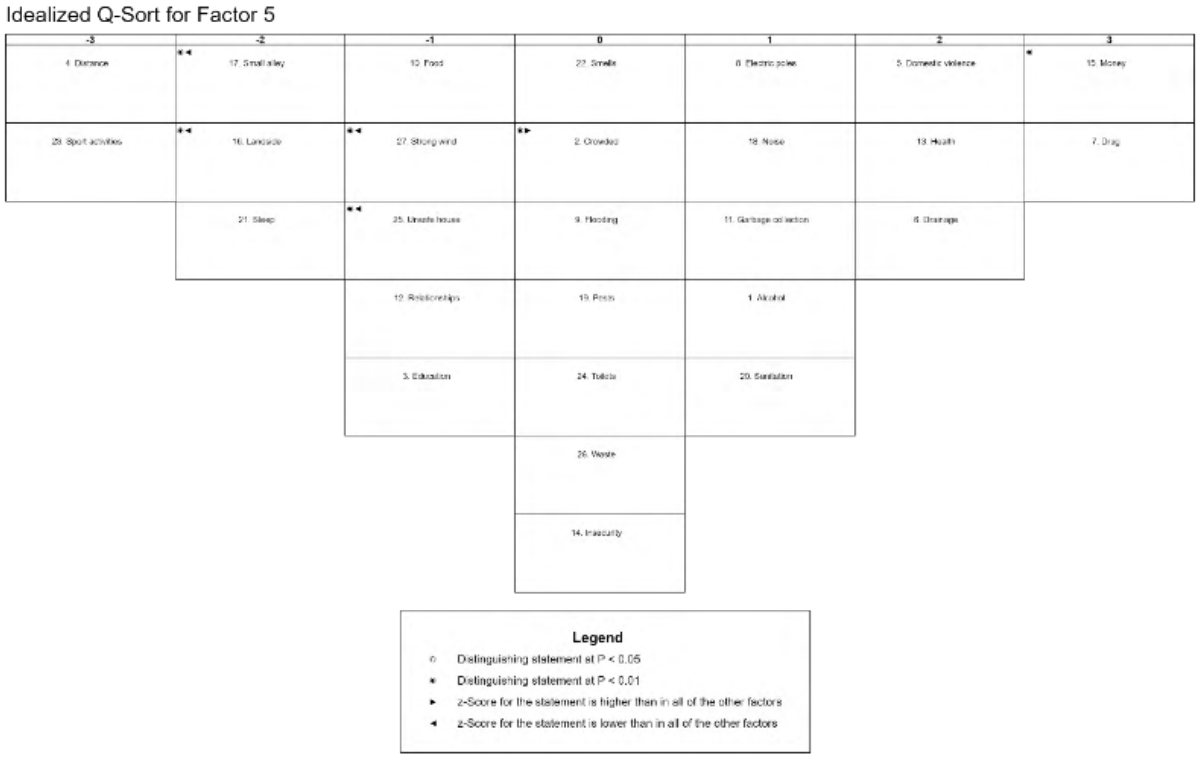
According to the individual 9 PT1 FO, 'money is a crucial need to support her family'. For the respondent 10 PT1 FO, 'money is important because she needs to buy food and anything to support her family.' The same ideas are also seen in the comments made by individuals 37 P5 FR and 48 P5 MR. Finally, the respondent 19 P5 FO said that 'drug is absolutely impactful on health for those who use drug as well as it is unsafe to walk to during the night. Sometime, it also conduces to theft case' and that 'she cannot live without money'.

d. Confirmation

The comments presented below confirm the idea that this factor is concerned with economic issues, particularly in terms of meeting needs such as access to food. One could have imagined, by looking at the poor districts of Phnom Penh, that the economic issue would be more present. In the end, it is mainly driven by this factor, which is not composed by the majority of individuals.

5. Factor 5: The Fatalist Housewife

Factor 5 synthetic Q-sort



a. Description

In this fifth factor, representations of natural disasters appear much further to the left than in the other factors. On the other hand, the z-score for overcrowded is higher. Money is once again presented as an important impact, along with drugs, domestic violence and health. These statements are followed by electricity poles, noise, rubbish collection and drainage, which were identified as collective elements. On the far left, distance, sports activities, sleep and the small alleyway can be observed. This last z-score is lower than that of all other factors.

b. Speculation

Author: If we look at the 4 elements that have the most impact on the quality of life in communities, we can see that they are mainly related to household life. But these elements are directly followed by others that are related to community life and community infrastructure. It can be assumed that

those elements that cannot be controlled are perceived as less important. Indeed, as mentioned earlier, the z-score for natural disaster reporting is lower than for all other factors. In summary, this factor appears to be less concerned with natural disasters and more with household problems within collective life.

Author and Research Assistant: Health, domestic violence, drugs, noise and alcohol are factors of concern. Indoor elements, at the household level, seem to be more important than the external environment. This profile seems more fatalistic. What cannot be controlled is accepted. There is some opposition to the third factor. It is assumed that this profile is composed of women, who are very concerned about well-being in the household, included in the community, there is a kind of mothering in this profile.

c. Comments

4 PT1 MR declared that there is ‘no landside in the community’. 5 PT1 FO also said that ‘landside is not a problem because it does not happen in the community’ and about the smells that ‘there are no smells anymore’.

None of them are members of the inhabitants' committees, and only a few of them talked about the problems they encountered either with family members or with close neighbours.

d. Confirmation

Finally, only half of this factor is made up of women, so the hypothesis is not verified for this factor. There are 4 inhabitants of Preaek Takong 1 out of the 6 individuals making up the factor. There are as many owners as there are tenants, which cannot allow conclusions to be drawn about the effect of the housing status on the perception of the elements.

In view of the comments, it is not possible to inform or confirm the hypothesis made on this profile, there are not enough elements to go further in the analysis. As a precaution, the hypotheses made on this last profile should be taken with a great deal of hindsight.

C. Discussion and limitations

Contrary to what was imagined when the study was drawn up, there is no major difference between owners and tenants. In fact, it is true that through the interviews it was found that many respondents had been tenants for 5, 10 or even 20 years. Their perception may then be similar to that of owners, there is no idea of transitional or short-term tenancy through the answers thus obtained.

Moreover, this may seem a little surprising, but in the end, money does not seem to be the main concern of the inhabitants interviewed, and there are different major concerns according to the five profiles studied.

This study provided a better understanding of whether or not residents tended to talk about the problems they might encounter, and if so, to whom. Thanks to the information gathered, it can be seen that the family is the main interlocutor to whom residents generally turn. In fact, 50% of respondents said they had already spoken to at least one member of their family about these problems. 37.5% said they had already discussed it with close neighbours, and only 16.7% said they had already discussed it with residents' committees within the communities. This figure seems rather low in spite of the apparent mobilisation of the inhabitants' committees, with which PE&D has close links, and that are in charge of passing on information related to life in the communities during the monthly meetings. It would therefore appear that communication between residents and residents' committees is not entirely effective. It can be hypothesised that perhaps some residents are not aware of these committees, and therefore do not know who to contact. Daeum Chan has the highest proportion of residents who said that they have already talked to members of the residents' committee about what affects their quality of life. It might then be interesting to review the communication within Preaek Takong 1 and Phum 5, in order to make these people known and accessible to the dwellers.

This subject of study, although very interesting, still has some limitations. As with the study carried out in Nantes, difficulties were encountered in understanding the instructions. For the inhabitants of the communities, it was apparently complicated to understand certain images, and the research assistant sometimes tended to take the lead and comment on the images without giving the inhabitants time to think for themselves about what these images could represent.

Cultural barriers are also important. First of all, language. Most members of the community do not speak English. So, the study must be applied in Khmer. The Khmer language is completely different from the Western language. Indeed, sentence construction is different and a lot of vocabulary is needed to clearly express an idea. This would lead to some frustration when collecting comments in the qualitative part of the study. When listening to long sentences, a lot of information is expected from the participant. The fact is that once translated, there is not as much information as expected, or at least as much detail as one might imagine. There may also be some loss of information because of the translation. But in the end, the idea was mainly to capture the important ideas, which was the case in this work.

Conclusion

Political decisions are often taken without the consensus of the population affected by the measures. The implementation of certain measures without the satisfaction of the people currently living in these areas can lead to a loss of time and money. This is because the viewpoint of policy makers is different from that of the people who live in urban poverty every day.

This is why this type of study is very important in order to better understand the points of view of the main stakeholders. However, this kind of study takes time and has some limitations, due to the difficulty of duplicating the tool. Indeed, in order to adapt this tool, the context of application must be taken into account. Internationally, it seems difficult to envisage a replicable tool without adapting it to each case study.

It would be interesting to be able to simplify the tool with probably fewer statements, but common to each area of application. For example, between the study carried out in France in Nantes and the study carried out in Phnom Penh in Cambodia, we can find some common statements such as access to food, lack of money, feelings of insecurity or problems related to drug use in underprivileged neighbourhoods.

Finally, this internship was an opportunity for me to discover a new culture, a new working environment that is the NGO, as well as the opportunity to conduct this study both independently and in pairs with the research assistant.

References

Cambodian Constitutional Assembly, The Constitution of the Kingdom of Cambodia, Phnom Penh, September 21, 1993, 2nd Plenary Session.

Habitat for Humanity Great Britain, The World's largest slums: Darhavi, Kibera, Khayelitsha and Neza, consulted the 24th of June, 2020.
https://www.habitatforhumanity.org.uk/blog/2017/12/the-worlds-largest-slums-dharavi-kibera-khayelitsha-neza/

Leong C., 2015, Persistently Biased: The Devil Shift in Water Privatization in Jakarta. "Q methodology can be seen as a tool to capture qualitative responses quantitatively".

Lund Research Ltd, 2012, Non-probability sampling.
http://dissertation.laerd.com/non-probability-sampling.php

Lund Research Ltd, 2012, Purposive sampling.
http://dissertation.laerd.com/purposive-sampling.php

Open Development Cambodia, Population and censuses, consulted the 1st of September, 2020.
https://opendevelopmentcambodia.net/topics/population-and-censuses/

Planète Enfants & Développement.
https://planete-eed.org/en/the-association/

Phnom Penh Capital Hall, 2012, The Phnom Penh Urban Poor Assessment.

Statista, 2020, The Statista Country Reports – Cambodia.

Stephenson, 1953, The Study of Behavior – Q Technique and its Methodology, Chicago; The University of Chicago Press, Books review by Taylor, University of Utah.

STT, 2018, The Phnom Penh Survey: a study on urban poor settlement in Phnom Penh. Phnom Penh, Cambodia.

Transparency International, Corruption Perception Index, consulted the 29th of August, 2020.
https://www.transparency.org/en/cpi/2019

UNICEF, The Convention of the Rights of the Child: the children's version, consulted the 29th of August, 2020.
https://www.unicef.org/child-rights-convention/convention-text-childrens-version

United Nations General Assembly. (1948). Universal Declaration of Human Rights (217 [III] A). Paris.

United Nations, Sustainable development goals overview, goal 11: Sustainable cities and communities, consulted the 24th of June, 2020
https://unstats.un.org/sdgs/report/2019/goal-11/

World Bank, Population living in slums (% of urban population) – Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, consulted the 2nd of August, 2020.
https://data.worldbank.org/indicator/EN.POP.SLUM.UR.ZS?locations=KH-LA-MM-TH-VN&view=chart

World Bank, Press release, April 2, 2020, World Bank approves $20 Million for Cambodia's COVID-19 Response.
https://www.worldbank.org/en/news/press-release/2020/04/02/world-bank-approves-20-million-for-cambodias-covid-19-coronavirus-response

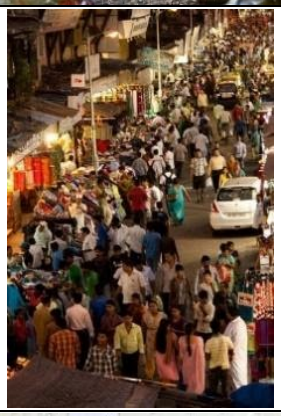
Appendix

Appendix 1: Synthesis table of information obtained from discussions with community leaders

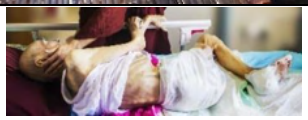
	Daeum Cham	Phum 5	Preak Takong 1
Water supply	30 families use private water supply, remainders: PPWSA	100% PPWSA (public)	50/50 public /private. For public supply the cost is around 700 riels / m^3, private supply: around 1 200 riels / m^3
Water shortages	No	No	Rarely
Toilets and sanitation	All have toilets / sanitation, and those who live nearby the river use the river	Most of people use the open-air toilet behind the house and open-air in the house. However, some have toilets but no sanitation	80% use open-air toilets
Electricity supply	10 families use private electricity, others use public electricity	All have access to public electricity	Public electricity supply EDC 650 riels per kWh
Electricity shortages	No	Rarely	Sometimes
Noises	Almost every day, the noise of speaker, singing	Some each house often has party so they drink beer and sing the songs by microphone with speaker. The community was annoyed by the loudly sound	The noise of landing truck, the noise of party (speaker, singing)
Smells	A lot, above all from trash and lack of sewage management	A lot, above all: waste water and garbage, and waste water sewage system	NA
Sewage management	1 drainage	No drainage	There is a sewer system for the front road and the behind road does not have
Garbage collection	Sentry collect on the main road, every day	Sentry often comes to collect 1 time per 2 days, in the main road. People from the community have to drop their garbage in the main road because Sentry cannot reach the small road	Sentry come to collect 1 time per month, and sometime, 1 time per two months
Recycling	Selling	They recycle in order to sell, but we can't call it really recycling, they don't understand the word,	They don't know, just sell the plastics

		it's must just pick what can be sold	
Pedestrian accessibility	Easy	Easy	Easy
Moto accessibility	Not easy	Not easy in the small roads	Easy access
Most important impacts related to the quality of life in the community	- Wind - Smell - Sanitation (sewage management) - Flooding - Landside - Waste	- Smell (waste water and garbage) - Not enough food to eat - Drug users, insecurity - Waste - Small road to access - No toilets - Unsafe houses	- Dusty ground - Waste - Non concreate road for the other road - Electricity stand

Appendix 2: Final pictures and legends

Statement number	Picture	Source	Legend in English	Legend in Khmer
1		Internet : Pixabay	Alcohol	គ្រឿងស្រវឹង
2		Internet : Pixabay	Crowded area	តំបន់មានមនុស្សច្រើន
3		Daeum Chan, Danaé Laot	Education	ការអប់រំ
4		Personal creation: Vichheka Ly	Distance	

5		Internet : https://lepetitjournal.com/cambodge/les-ong-cambodgiennes-mobilisees-pour-la-journee-mondiale-des-femmes-251941 credit: LICADHO	Domestic violence	អំពើហិង្សាក្នុងគ្រួសារ
6		Daeum Chan, Danaé Laot	Drainage	លូ
7		Internet : Pixabay	Drug addiction	ប្រើប្រាស់គ្រឿងញៀន
8		Daeum Chan, Danaé Laot	Electric poles	បង្គោលភ្លើង
9		Preaek Takong 1, Chamnan Chhun	Flooding	ទឹកជំនន់

10		Preaek Takong 3, Vichheka Ly	Food	អាហារ
11		Internet: Pixabay	Garbage collection	ការប្រមូលសំរាម
12		Preaek Takong 3, Vichheka Ly	Relations hips	ទំនាក់ទំនង
13		Internet: Pixabay	Health	សុខភាព
14		Daeum Chan, Benedicte Charrion	Insecurity	អសុវត្ថិភាព
15		Danaé Laot	Money	លុយ

16		Daeum Chan, Kuy Bunnarin's son (community leader and wise village leader)	Landside	បាក់ដី
17		Daeum Chan, Danaé Laot	Narrow alley	ផ្លូវតូចចង្អៀត
18		Preaek Takong 3, Reasa Ros	Noise	រំខានដោយសំលេង
19		Internet: Pixabay	Pests	សត្វល្អិត
20		Preaek Takong 3, Vichheka Ly	Sanitation kitchen	អនាម័យផ្ទះបាយ

21		Internet: Pixabay	Sleep	ដេក
22		Preaek Takong 3, Vichheka Ly	Smells	ក្លិន
23		Daeum Chan, Danaé Laot	Sport activites	សកម្មភាពកីឡា
24		Preaek Takong 3, Vichheka Ly	Toilets	បង្គន់
25		Daeum Chan, PE&D	Unsafe house	ផ្ទះអសុវត្ថិភាព
26		Phum 5, Danaé Laot	Waste	សំរាម

27		Internet: Pixabay	Wind	ខ្យល់

Appendix 3: answers from the 48 dwellers

Preaek Takong 1 Community	Owner	Renter
Women	8	1
Men	2	5

Respondent number	Code	Community	Housing status	Gender	Age
1	**1.PT1.FO**	Preaek Takong 1	Owner	Female	64

1						9
2	8	22	20	12	25	13
23	17	4	18	9	7	5
	10	1	3	11	15	
		6	14	21		
		24	19	26		
			27			
			16			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- **Crowded:** She thinks it is not important because in the community there are not so many people. - **Sports activities:** football and activities are not important because they can play whenever they want.	- **Domestic violence**: causes health problems, sickness, divorce, it affects the income when the person is injured and cannot go to work. Children will have only single mom or dad. - **Health**: health issue can affect income because they cannot go to work.

Are you a PASSA member?	Yes
Concerning the main issues you have identified, have you already talked about this to someone else before?	NA

If yes, who?	NA

Respondent number	Code	Community	Housing status	Gender	Age
2	**2.PT1.MO**	Preaek Takong 1	Owner	Male	51

1						9
24	18	22	2	6	9	7
20	12	21	19	5	27	26
	10	14	13	1	3	
		23	8	16		
		17	11	25		
			4			
			15			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- **Toilets**: for toilets he can find wherever a place both outdoor and indoor, or even neighbors. - **Sanitation**: we can organize for the place to sanitation.	- **Drug**: drug users affect the community (unsafety, noisy) as well as theft cases. - **Waste**: impact on health.

Are you a PASSA member?	Yes
Concerning the main issues you have identified, have you already talked about this to someone else before?	NA
If yes, who?	NA

Respondent number	Code	Community	Housing status	Gender	Age
3	**3.PT1.MO**	Preaek Takong 1	Owner	Male	53

1						9
9	2	12	15	7	26	25
17	10	5	22	19	20	27
	16	3	24	18	21	
		23	8	11		
		14	13	1		
			6			
			4			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- **Flooding**: Flooding does not happen anymore in the community because the land has been filled to construct the buildings around. - S**mall roads**: it is easy to access for both truck and motorbike.	- **Unsafe house**: It is important because unsafe house can cause people death, costs money to construct the house again. - **Strong wind**: Can destroy house, results in loss of money for renovation works, and cause people death.

Are you a PASSA member?	Yes
Concerning the main issues you have identified, have you already talked about this to someone else before?	NA
If yes, who?	NA

Respondent number	Code	Community	Housing status	Gender	Age
4	**4.PT1.MR**	Preaek Takong 1	Renter	Male	42

1						9
16	12	27	19	22	11	15
18	17	2	25	26	5	7
	4	3	21	8	6	
		1	20	14		
		9	23	13		
			10			
			24			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- **Landside**: no landside in the community. - **Noise**: People are getting to know that it is annoying for their neighbors, so it became better now. For him it is not so important.	- **Money**: lack of money is important because he needs it to buy anything he wants. - **Drug**: It causes violence in family and toward to others because they cannot control as well as theft cases.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NA
If yes, who?	NA

Respondent number	Code	Community	Housing status	Gender	Age
5	**5.PT1.FO**	Preaek Takong 1	Owner	Female	55

1						9
22	23	21	25	2	20	24
16	3	8	9	27	6	19
	4	5	12	26	7	
		18	10	15		
		17	11	13		
			1			
			14			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Smells: No smell anymore. - Landside: It is not a problem because it does not happen in the community.	- Toilets: It is the big problem because people don't have much toilet. Most of them use open air. Lack of sanitation. - Pests: There are many pests in the community and it affects people health because it became dirty.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
6	**6.PT1.FO**	Preaek Takong 1	Owner	Female	36

1						9
23	9	16	22	26	6	7
4	21	24	14	19	13	15
	17	27	5	11	3	
		2	25	18		
		12	1	20		
			10			
			8			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: It is normal because people can play or not, it depends on people. If they want to play and it is not priority thing. - Distance: It is not so far from community.	- Drug: Drug user affects to society, cause theft cases, violence in family and with others. - Money: People cannot live without money because people can have anything if they have money.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members Close neighbors

Respondent number	Code	Community	Housing status	Gender	Age
7	**7.PT1.FO**	Preaek Takong 1	Owner	Female	30

1						9
17	4	1	19	14	26	8
23	12	16	20	18	3	13
	21	6	7	2	5	
		9	22	25		
		11	27	24		
			15			
			10			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Small roads: the road in the community is easy to access for both truck and motorbike. - Sport activities: People can find free time to play and it is not priority for her.	- Electric poles: It causes people death because people touch it when it rains. - Health: Health issue affects people because it costs a lot of money to cure it as well as loss time.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	PASSA Local authorities

Respondent number	Code	Community	Housing status	Gender	Age
8	**8.PT1.FO**	Preaek Takong 1	Owner	Female	57

1						9
16	23	9	26	25	12	7
4	1	19	8	13	24	15
	11	18	10	3	5	
		22	20	6		
		17	14	27		
			21			
			2			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Landside: Community does not have landside anymore. - Distance: The community is not far from hospital and school.	- Drug: Drug user affect other people (theft cases, violence and noise) - Money: It is a crucial need to support family and other things.

Are you a PASSA member?	No
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members Neighbors

Respondent number	Code	Community	Housing status	Gender	Age
9	**9.PT1.FO**	Preaek Takong 1	Owner	Female	58

1						9
2	22	14	3	17	27	16
21	7	10	24	11	4	15
	19	20	8	18	12	
		13	5	6		
		1	25	26		
			9			
			23			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: There is not so many people here. - Sleep: It is not important.	- Landside: It absolutely affected her house because her house is next to the lake. - Money: It is a crucial need to support her family.

Are you a PASSA member?	No
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
10	**10.PT1.FO**	Preaek Takong 1	Owner	Female	56

1						9
19	18	8	24	3	26	5
1	23	7	9	17	2	15
	22	25	27	11	14	
		21	16	6		
		20	10	13		
			12			
			4			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Pests: People can manage to kill it and keep the place clean so it would not come. - Alcohol: It depends on people who drink or not. People can stop or drink. It would have an effect for those who are addicted but it would not affect for those who don't drink.	- Domestic violence: Family lives in bad condition because they are not happy with each other. Wife has mental health problem as well as physical. - Money: It is important because she needs to buy food and anything to support her family.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
11	**11.PT1.FO**	Preaek Takong 1	Owner	Female	41

1						9
3	12	4	26	7	21	15
1	16	13	5	11	25	27
	23	10	24	8	9	
		14	19	18		
		20	6	22		
			17			
			2			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Education: If she has a better life, she can afford education later. - Alcohol: it would affect people who drink.	- Money: It is very important to her because she can buy food or other things. - Strong wind: It can destroy the house and be the cause people die or are hurt.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Neighbors

Respondent number	Code	Community	Housing status	Gender	Age
12	**12.PT1.MR**	Preaek Takong 1	Renter	Male	35

1						9
2	18	9	16	14	5	26
4	12	23	11	24	19	7
	3	17	20	6	1	
		10	15	27		
		21	13	25		
			8			
			22			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: He can see that community has big space and people can live in good atmosphere. Not so much people live in the community. - Distance: It is not far from the place they want to go.	- Waste: He can see that waste is a big problem because he sees it everywhere in the community. It affects public health. - Drug: Community is annoyed at night by drug users sounds.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
13	**13.PT1.FR**	Preaek Takong 1	Renter For 10 years	Female	29

1						9
22	18	23	3	1	11	7
4	2	19	13	24	14	26
	9	27	15	8	5	
		6	21	25		
		12	16	10		
			17			
			20			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Smells: It is ok for her because she has adapted with smells over there. - Distance: It is not the problem because it is not far from the community.	- Drug: It absolutely affects to children and their health (Physical and mental) when they use it for long time. - Waste: It creates bad smells and affects public health.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
14	**14.PT1.MR**	Preaek Takong 1	Renter For 5 years	Male	55

1						9
4	21	8	13	20	6	15
10	19	17	26	9	14	7
	25	16	5	1	22	
		12	2	18		
		27	3	11		
			23			
			24			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Distance: The community is not far from other places. - Food: It is important but he can have the food whenever he has the money.	- Money: It is really important. With the money, he can get everything he wants. - Drug: When people use drug for a long time, they can have serious health problem and even die.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
15	**15.PT1.MR**	Preaek Takong 1	Renter For 5 years	Male	22

1						9
23	27	8	11	15	22	7
12	9	24	1	19	26	14
	3	5	21	18	13	
		16	20	10		
		2	6	17		
			4			
			25			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: It is not really important because the community doesn't have field. - Relationships: It is not important because he is already on good terms with everyone.	- Drug: Drug users are very noisy at night and people could not sleep well because of the noise. Sometimes, they can cause violence. - Insecurity: It is scaring to walk at nigh time because there don't have any light during the night.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
16	**16.PT1.MR**	Preaek Takong 1	Renter For 2 months	Male	36

1						9
21	14	16	17	24	9	26
20	10	3	8	13	27	6
	5	12	23	4	18	
		19	2	25		
		22	1	11		
			7			
			15			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: sleeping is not a priority because whether he sleeps or does not sleep, it is okay. - Sanitation: He can rearrange to make it better to be healthy.	- Waste: It affects public health and look bad. - Drainage: It would be flooding during raining season if there is no drainage system.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Neighbors, Local authorities

Phum 5 Community	Owner	Renter
Women	6	4
Men	4	2

Respondent number	Code	Community	Housing status	Gender	Age
17	**17.P5.MO**	Phum 5	Owner	Male	53

1						9
10	6	12	25	8	16	7
23	3	17	18	20	27	5
	15	22	4	14	13	
		2	24	9		
		1	19	26		
			21			
			11			

Comments on the 2 pictures on the far-left side	**Comments on the 2 pictures on the far-right side**
- Food: If he has money, he can buy food - Sport activities: It is important but it is not a priority because he can play whenever he has free time before / after work.	- Drug: People can die if they take it for a long time. - Domestic violence: a couple can divorce. It affects the children. Children can go down the wrong path without parents.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES

If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
18	**18.P5.FO**	Phum 5	Owner	Female	28

1						9
2	18	17	10	16	27	5
23	19	6	15	26	9	7
	12	11	1	14	8	
		20	25	13		
		21	22	4		
			3			
			24			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: It does not affect her because there is not so many people in the community. - Sport activities: People can play when they have free time.	- Domestic violence: A couple can divorce and children cannot go to school because of the situation. - Drug: It affects society. Children drop out of school because they are crazy with the drug.

Are you a PASSA member?	YES
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
19	**19.P5.FO**	Phum 5	Owner	Female	36

1						9
2	20	18	13	25	4	7
1	23	21	17	9	27	15
	12	11	8	24	14	
		16	10	26		
		19	22	6		
			3			
			5			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: It has no impact because there is not so many people in the community. - Alcohol: It would impact those who drink it.	- Drug: It is absolutely impactful on health for those who use drug as well as it is unsafe to walk to during the night. Sometime, it also conduces to theft case. - Money: She cannot live without money.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
20	**20.P5.FR**	Phum 5	Renter For 10 years	Female	61

1						9
1	20	18	22	26	27	7
21	4	10	3	6	17	5
	19	2	16	13	24	
		23	11	8		
		12	9	14		
			25			
			15			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Alcohol: It is not important because people can manage to drink or not. - Sleep: It is not a priority because she can manage to sleep.	- Drug: It affects family and society. - Domestic violence: It causes health problem, mental health problem and loss of income.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors, Local Authorities

Respondent number	Code	Community	Housing status	Gender	Age
21	**21.P5.FO**	Phum 5	Owner	Female	38

1						9
12	23	6	19	15	26	7
2	18	17	13	5	8	27
	21	11	20	9	25	
		22	4	10		
		1	3	16		
			24			
			14			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Relationships: Normally, we already know each other. - Crowded: Don't have so many people here.	- Drug: It can destroy society and their future as dropping out of school. - Strong wind: It can destroy house, dangerous (jeopardize family life)

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	PASSA members, Local authorities, Social workers

Respondent number	Code	Community	Housing status	Gender	Age
22	**22.P5.FO**	Phum 5	Owner	Female	42

1						9
21	12	6	15	14	5	7
23	3	19	26	18	27	25
	10	17	16	24	9	
		22	11	13		
		2	4	8		
			20			
			1			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: NA - Sport activities: NA	- Drug: When the children use it, they would not go to school and they become bad in society. - Unsafe house: It can collapse and people can die.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
23	**23.P5.FR**	Phum 5	Renter For more than 10 years	Female	64

1						9
23	3	26	15	6	13	7
21	11	19	10	14	17	5
	2	16	22	27	25	
		24	1	18		
		12	8	20		
			9			
			4			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: Normally, they can play when they have free time. - Sleep: she can manage to sleep.	- Drug: It affects children. When they use it, they drop out of school and become bad in society. - Domestic violence: Affects children because of their parent's violent behaviors. The wife has mental health problem.

Are you a PASSA member?	YES
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
24	**24.P5.MO**	Phum 5	Owner	Male	30

1						9
21	2	12	10	20	15	7
23	1	6	27	8	24	14
	11	22	17	4	13	
		18	26	9		
		25	16	5		
			19			
			3			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: It can have an effect if people could not manage it. But for her it is ok. - Sport activities: People could play when they have free time.	- Drug: It affects children, their health (both mental and physical) and destroy society. - Insecurity: people are scared to walk during the night and it is dangerous. They are afraid of being robbed.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors, friends

Respondent number	Code	Community	Housing status	Gender	Age
25	**25.P5.FO**	Phum 5	Owner	Female	59

1						9
1	2	24	10	25	14	7
23	3	4	6	9	17	5
	21	11	13	27	26	
		12	8	15		
		18	20	19		
			16			
			22			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Alcohol: - Sport activities:	- Drug: It affects drug user's health and they drop out of school. - Domestic violence: It is very annoying for the neighbor. Couples suffer from this.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, Local authorities

Respondent number	Code	Community	Housing status	Gender	Age
32	**32.P5.MO**	Phum 5	Owner	Male	61

1						9
4	19	20	8	22	24	7
2	1	12	17	15	9	26
	23	14	21	25	6	
		18	3	5		
		10	27	11		
			13			
			16			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Distance: different places are not so far from the place they live. - Crowded: It does not affect people here because there is not so many people.	- Drug: It affects the drug user's health. - Waste: It affects health and create a dirty environment.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors

Respondent number	Code	Community	Housing status	Gender	Age
33	**33.P5.MO**	Phum 5	Owner	Male	30

1						9
2	3	22	18	21	24	25
4	12	19	9	27	5	7
	23	1	11	10	26	
		16	14	13		
		6	17	15		
			8			
			20			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: It is not a problem because he did not see the impact. - Distance: It is ok for him.	- Unsafe house: It would collapse, jeopardize family and need a lot of money to construct a new one. - Drug: destroys the society.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
34	**34.P5.MR**	Phum 5	Renter For 2 months	Male	35

1						9
17	3	11	22	14	27	24
23	12	8	18	10	7	5
	21	6	25	13	9	
		4	16	26		
		2	19	15		
			20			
			1			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Small roads: He has adapted with the small streets. - Sport activities: It is good for health but he can play with he has time.	- Toilets: It is really important because if people don't have toilet, they use open air toilets, so lack of sanitation. - Domestic violence: NA

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
35	**35.P5.FO**	Phum 5	Owner	Female	64

1						9
23	19	11	3	21	5	25
2	6	24	14	8	15	7
	4	17	1	27	12	
		16	9	13		
		18	26	22		
			20			
			10			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: It is not priority and it is not impactful. - Crowded: There is not so many people in the community.	- Unsafe house: It has a very high impact on people because it can collapse easily and it is dangerous to live in. - Drug: Drug users get health problem, mental health problem, and they also don't have a good future.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, Local authorities, Social workers

Respondent number	Code	Community	Housing status	Gender	Age
36	**36.P5.FR**	Phum 5	Renter For more than 10 years	Female	38

1						9
4	23	26	13	24	8	25
2	22	19	16	3	14	7
	18	6	17	11	21	
		27	10	15		
		9	1	5		
			20			
			12			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Distance: It is ok for her because it is not far from the place. - Crowded: The people and the place are good. No affected.	- Unsafe house: It is not safe to live in it because it can collapse and the rain can reach the inside of the house. - Drug: It affects drug users health both mental and physical, and it destroys the society as well as it leads to violence.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors

Respondent number	Code	Community	Housing status	Gender	Age
37	**37.P5.FR**	Phum 5	Renter For more than 10 years	Female	40

1						9
23	17	8	20	12	3	15
19	11	7	25	1	4	27
	22	2	14	21	26	
		16	13	5		
		18	24	9		
			6			
			10			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: - Pests: There is not many pests over there.	- Money: It is really important because it supports family. - Strong wind: It is impactful on house and everything and people can die.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, , neighbors, PASSA members

Respondent number	Code	Community	Housing status	Gender	Age
48	**48.P5.MR**	Phum 5	Renter	Male	NA

1						9
2	23	9	3	27	5	15
11	1	17	10	12	7	24
	21	22	13	4	8	
		19	14	6		
		16	25	20		
			18			
			26			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: There is not so many people who live there and they have big space. - Garbage collection: It is not important because they normally come to collect.	- Money: It is really important because people sometimes steal something for the money. - Toilets: it is important especially for women and lack of sanitation.

Are you a PASSA member?	YES
Concerning the main issues you have identified, have you already talked about this to someone else before?	NA
If yes, who?	

Daeum Chan Community	Owner	Renter
Women	7	3
Men	3	3

Respondent number	Code	Community	Housing status	Gender	Age
26	**26.DC.MO**	Daeum Chan	Owner	Male	65

1						9
23	6	9	25	1	8	5
4	21	20	2	26	13	7
	11	10	3	18	27	
		17	19	16		
		12	15	22		
			24			
			14			

Comments on the 2 pictures on the far-left side	**Comments on the 2 pictures on the far-right side**
- Sport activities: It is good to have exercise because he gets good health, he can play when he has free time. - Distance: It is near the community.	- Domestic violence: It has an impact on family and children. - Drug: It affects drug user's health and family.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES

If yes, who?	Family members, neighbors

Respondent number	Code	Community	Housing status	Gender	Age
27	**27.DC.FO**	Daeum Chan	Owner	Female	61

1						9
23	22	3	15	18	8	5
4	21	10	12	20	13	7
	17	16	26	2	9	
		25	24	6		
		27	11	1		
			14			
			19			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: It is good for health but she doesn't play it. - Distance: she can reach the destination easily by motorbike.	- Domestic violence: It affects the family and children. It happens really often in the community. - Drug: It has an impact on drug user's health and can destroy the society by doing bad actions.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors

Respondent number	Code	Community	Housing status	Gender	Age
28	**28.DC.MO**	Daeum Chan	Owner	Male	46

1						9
3	16	10	6	8	18	1
23	27	26	11	24	15	5
	25	17	22	7	13	
		20	2	4		
		14	19	21		
			9			
			12			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Education: - Sport activities: It is not important for him.	- Alcohol: It highly affects health when he drinks too much. - Domestic violence: It affects family. Getting hurt and suffer.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
29	**29.DC.FO**	Daeum Chan	Owner	Female	36

1						9
21	18	22	4	7	16	25
23	3	20	1	5	8	9
	12	13	2	26	14	
		17	6	27		
		15	19	24		
			11			
			10			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: She doesn't have problems to sleep. - Sport activities: People usually play if they want.	- Unsafe house: People can die when living in very bad conditions house. - Flooding: It is difficult to access and children can die.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Neighbors, PASSA members, Local authorities

Respondent number	Code	Community	Housing status	Gender	Age
30	**30.DC.FO**	Daeum Chan	Owner	Female	NA

1						9
21	10	6	9	25	15	27
3	17	2	4	7	20	8
	23	11	24	13	16	
		18	26	5		
		12	1	14		
			19			
			22			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: people sleep normally during the night. - Education: education is important, but they can manage for their children to go, after they will have better life conditions.	- Strong wind: It destroys everything both house and trees. - Electric poles: It can catch fire if people are not careful with it. People can die.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Neighbors, PASSA members

Respondent number	Code	Community	Housing status	Gender	Age
31	**31.DC.MR**	Daeum Chan	Renter For more than 10 years	Male	40

1						9
21	23	3	4	25	16	8
19	12	10	14	26	5	7
	22	17	11	13	27	
		9	6	15		
		20	24	2		
			1			
			18			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: - Pests: It is a little bit annoying for the household but it is okay.	- Electric poles: It catches fire and people can die if they touch while wet. - Drug: It affects drug user's both mental and physical health.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Neighbors

Respondent number	Code	Community	Housing status	Gender	Age
38	**38.DC.FR**	Daeum Chan	Renter For more than 1 year	Female	37

1						9
10	12	14	17	25	27	9
4	3	11	19	13	26	5
	23	20	8	24	7	
		2	22	6		
		1	15	16		
			18			
			21			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Food: She can find food if she can find money, it is not so important. - Distance: She can take the motorbike to reach easily the place she wants.	- Flooding: It affects the community, as well as housing, and especially children. - Domestic violence: It affects family and health.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members

Respondent number	Code	Community	Housing status	Gender	Age
39	**39.DC.FO**	Daeum Chan	Owner	Female	30

1						9
3	23	2	6	15	7	5
24	17	20	8	4	14	26
	21	1	25	9	13	
		12	16	10		
		19	18	27		
			11			
			22			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Education: People can access the education and they (in the community) think that the education is not important. - Toilets: They don't have much toilets here. But she can access another toilet easily (could be open air, neighbors, etc.)	- Domestic violence: It affects family and health (physical and mental). - Waste: impact on health and environment

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, PASSA members, Local authorities

Respondent number	Code	Community	Housing status	Gender	Age
40	**40.DC.FO**	Daeum Chan	Owner	Female	38

1						9
23	21	20	13	15	5	27
12	3	17	6	8	7	9
	22	2	24	4	25	
		1	14	16		
		18	26	10		
			19			
			11			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: They can play whenever the have time to. - Relationships: It is important but not so much.	- Strong wind: it can destroy the house and kill people. - Flooding: it is difficult to access the road and the children can die.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors, PASSA members, Local authorities

Respondent number	Code	Community	Housing status	Gender	Age
41	**41.DC.FO**	Daeum Chan	Owner	Female	60

1						9
18	23	17	21	7	2	13
10	12	3	27	1	8	5
	22	6	4	25	24	
		15	20	19		
		16	11	9		
			14			
			26			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Noise: She has adapted with the noise and she is okay with it. - Food: It is okay if she finds money.	- Health: It affects family time and costs a lot of money. - Domestic violence: It causes wife feeling sad, depressed and suffering.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors, social workers

Respondent number	Code	Community	Housing status	Gender	Age
42	**42.DC.FR**	Daeum Chan	Renter	Female	NA

1						9
23	19	3	26	13	7	8
18	11	12	16	14	5	27
	20	6	2	9	4	
		10	1	25		
		24	15	17		
			21			
			22			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sport activities: It depends on if people want to play or not. It is not really important. - Noise: she has adapted to the noise and it is not problem for her anymore.	- Electric poles: It's causing firer in the community and damages the houses. - Strong wind: It destroys house and everything.

Are you a PASSA member?	YES
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Neighbors, Local Authorities

Respondent number	Code	Community	Housing status	Gender	Age
43	**43.DC.MR**	Daeum Chan	Renter For more than 20 years	Male	53

1						9
4	23	15	3	19	9	8
20	24	22	21	11	12	13
	14	17	2	5	16	
		18	10	26		
		25	27	7		
			6			
			1			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Distance: He can take the motorbike to go to the place he wants. It is not a bit deal for him. - Sanitation: He can organize to make it clean and healthy.	- Electric poles: It's causing firer and kill people when they touch it while being wet. - Health: it costs a lot of money and they cannot win income.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
44	**44.DC.MR**	Daeum Chan	Renter For more than 10 years	Male	38

1						9
19	2	15	11	4	8	5
12	23	6	22	10	14	7
	21	18	24	3	13	
		17	16	27		
		1	20	9		
			26			
			25			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Pests: He can kill them so it would not be annoying anymore. - Relationships: they already know each other and have good relationships.	- Domestic violence: It affects family and children. Children cannot go to school because of the situation, as victims, they are not in a good mood to motivate themselves to go to school. - Drug: it affects drug user's health and there are doing bad in society.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	YES
If yes, who?	Family members, neighbors, PASSA members

Respondent number	Code	Community	Housing status	Gender	Age
45	**45.DC.MO**	Daeum Chan	Owner	Male	28

1						9
4	23	20	24	17	16	27
1	2	21	15	22	25	9
	3	8	5	7	26	
		12	6	19		
		18	14	11		
			10			
			13			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Distance: No problem with that. - Alcohol: it would affect those who are drinking too much.	- Strong wind: it destroys houses and kill people. - Flooding: it destroys the road and kill children.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
46	**46.DC.FR**	Daeum Chan	Renter For more than 10 years	Female	34

1						9
21	12	20	17	27	13	7
23	22	24	4	14	15	8
	19	3	10	5	9	
		11	25	6		
		1	2	26		
			18			
			16			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Sleep: NA - Sport activities: NA	- Drug: It affects drug user's health, and they lose a lot of money to buy it. - Electric poles: It's causing firer and it can kill people as well as destroy houses.

Are you a PASSA member?	NO
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	

Respondent number	Code	Community	Housing status	Gender	Age
47	**47.DC.FO**	Daeum Chan	Owner	Female	24

1						9
2	18	11	26	13	8	5
12	23	6	3	9	20	7
	22	21	24	16	25	
		10	14	27		
		15	17	4		
			1			
			19			

Comments on the 2 pictures on the far-left side	Comments on the 2 pictures on the far-right side
- Crowded: There is not so many people and it has not a big impact because people can protect themselves from the crowd and the consequences, as the spread of a disease for instance. - Relationships: It is important, it depends on people who can well get along with others or not.	- Domestic violence: It affects health and children cannot go to school because of this situation (no motivation). - Drug: it affects to society (doing bad in society) family (mental health problem) as well as their physical health.

Are you a PASSA member?	NA
Concerning the main issues you have identified, have you already talked about this to someone else before?	NO
If yes, who?	