

CAN THE POOR ENHANCE POVERTY REDUCTION?

Rural and Urban Perspectives on Water Resources, Poverty & Participatory Development in the Tonle Sap Region and Phnom Penh, Cambodia

Ulla K. Heinonen

Dissertation for the degree of Doctor of Science in Technology



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Poverty & Participatory Development in the Tonle Sap Region
and Phnom Penh, Cambodia**

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Abstract			
<p>In recent years, Cambodia has seen a significant economic growth. However, this development has not reached the poorest dwellers, resulting in escalating inequality. The Tonle Sap Region is one of the poorest regions in the country. The livelihoods of the region's poor are greatly dependent on water resources. The livelihoods are thus vulnerable to possible changes in water resources associated with the current development plans. By contrast, Phnom Penh, which is the main destination for the region's migrants when searching for a better level of living, is struggling with increasing poverty, informality and inequality.</p> <p>Participatory development is considered crucial when aiming at equal poverty reduction. Consequently, this study analyzes the strategies used by the poor to participate in decision-making and to enhance poverty reduction in urban and rural areas of Cambodia. Furthermore, the study analyzes the role of water resources and migration in the country's poverty reduction. The study focuses especially on grass root level observations. Hence, the participatory studies and expert interviews undertaken serve as a major source of information for the research.</p> <p>This study identifies various strategies used by the poor for participating and enhancing poverty reduction. Many of these, however, are rather narrow, project-based and fragile, and thus have only limited impacts on general poverty reduction and empowerment in the study regions. To conclude, poverty reduction is hindered by the lack of competent authorities and sound policies to address poverty, inequality and informality as well as mistrust and weaknesses within the communities. Improving the possibilities of the poor to enhance poverty reduction calls for several changes at both the community and decision-making level.</p>			
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Väitöskirjan nimi Voivatko köyhät itse edistää köyhyyden vähentämistä? Maaseudun ja kaupungin näkökulmia vesivaroihin, köyhyyteen, kehitykseen ja osallistumiseen Tonle Sap-järven alueella ja Phnom Penhissa, Kambodžassa			
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Tiedekunta	Insinööritieteiden ja arkkitehtuurin tiedekunta		
Laitos	Yhdyskunta- ja ympäristötekniikan laitos		
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Työn valvoja	Prof. Olli Varis		
Tiivistelmä			
<p>Kambodžan talouskasvu on ollut viimeisten vuosien aikana nopeaa. Maan köyhä väestö ei kuitenkaan ole hyötynyt tästä kasvusta, mikä on lisännyt maan sisäistä eriarvoisuutta. Tonle Sap-järven alue on maan köyhimpiä. Alueen asukkaiden elinkeinot ovat erittäin riippuvaisia vesivarjoista ja näin ollen riskialttiita vesivarjojen kehittämishankkeiden aiheuttamille muutoksille. Phnom Penh, jonne alueen köyhät valtaosin muuttavat paremman elintason toivossa, painii kasvavan köyhyyden ja eriarvoisuuden kanssa.</p> <p>Osallistava kehitys nähdään yhtenä perusedellytyksenä tasa-arvoiselle köyhyyden vähentämiselle. Tähän perustuen työ analysoi Kambodžan maaseutu- ja kaupunkialueiden köyhän väestön keinoja osallistua päätöksen tekoon sekä oman elintasonsa parantamiseen. Lisäksi työ tutkii vesivarjojen ja muuttoliikkeen roolia köyhyyden vähentämisessä. Tutkimus keskittyy erityisesti paikallistason näkemyksiin ja siksi osallistavat tutkimukset ja asiantuntijahaastattelut ovat työn päätutkimusmateriaalia.</p> <p>Työssä tuodaan esille keinoja, joilla tutkimusalueiden köyhät voivat osallistua kehitystyöhön ja vähentää köyhyyttä. Monet keinoista ovat kuitenkin rajallisia, hauraita ja yltävät vain projektitasolle. Näin ollen niillä on vaikutusta vain paikallisesti. Johtopäätöksenä voidaan todeta, että tasapuolista köyhyyden vähentämistä hidastavat osaavien viranomaisten ja sopivien menettelytapojen puute sekä paikallisyhteisöjen heikkous. Köyhän väestön vaikutusmahdollisuuksien lisääminen vaatii muutoksia sekä paikallistasolla että päätöksenteossa.</p>			
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ABBREVIATIONS

ACHR	Asian Coalition for Housing Rights
ACMECS	Ayeyawady - Chao Phraya - Mekong Economic Cooperation Strategy
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BDP	Basin Development Program
CARERE	Cambodia Area Rehabilitation and Regeneration Project
CBO	Community-based Organization
CDC	Community Development Committee
CDRI	Cambodia's Leading Independent Development Policy Research Institute
CEDAC	Center d'Etude et de Développement Agricole Cambodgien
CODI	Community Organizations Development Institute
CPP	Cambodian People Party
CSO	Civil Society Organization
EIA	Environmental Impact Assessment
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organizations of the United Nations
FUNCINPEC	Front Uni National pour un Cambodge Indépendant, Neutre, Pacifique, at Coopératif - a royalist party
GDP	Gross Domestic Product
GNI	Gross National Income
GMS	Greater Mekong Sub-Region
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
GWP	Global Water Partnership
ICBP	Integrated Capacity Building Program
IUCN	World Conservation Union
IWRM	Integrated Water Resources Management
JFPR	Japanese Fund for Poverty Reduction
MDG	Millennium Development Goal
MC	Mekong Committee
MLMUPC	Ministry of Land Management, Urban Planning and Construction Cambodia
MRC	Mekong River Commission
MWRAS	Mekong Water Resources Assistance Strategy
NGO	Non-governmental Organization
NECF	Neighbouring Countries Economic Development Cooperation Fund
NHA	National Housing Authority
NMC	National Mekong Committee

PPWSA	Phnom Penh Water Supply Authority
PPA	Participatory Poverty Assessment
PRA	Participatory Rural Appraisal
PURP	Partnership for Urban Poverty Reduction Program
REG	Regional Environmental Governance
RDIC	Resource Development International Cambodia
SEILA	Royal Government of Cambodia's Program for Decentralized Governance
SFG	Saving Fund Group
SIA	Social Impact Assessment
SNC	Supreme National Council
SRP	Sam Rainsy Party
STT	Sahmakum Teang Tnaut
SUPF	Solidarity for the Urban Poor Federation
TSBA	Tonle Sap Basin Authority
UN	United Nations
UN-HABITAT	United Nations Human Settlement Program
UNOPS	United Nations Office for Project Services
UNTAC	United Nations Transitional Authority in Cambodia
UPDF	Urban Poor Population Fund
UPRU	Urban Poverty Reduction Unit
USG	Urban Sector Group
WTO	World Trade Organization
WUP-FIN	Water Utilization Program - Finnish Complementary Project of the Mekong River Commission
WWF	World Wildlife Fund

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DEFINITIONS OF THE USED TERMS

Adequate sanitation

Private or shared toilets, pour-flush latrines or VIP latrines (UN-HABITAT, 2003b)

Civil society

The definition of the term varies from society and public sphere to common interest (Edwards, 2008)

Civil society organization

NGOs, trade unions, foundations, religious groups, community-based organizations and social networks - all the people that are active in the public sphere (Naidoo, 2008)

Community-based organization

Non-profit, non-private group of people committed to help members of an identifiable group to achieve development goals in terms of e.g. health, education and other basic services

Decentralization

Delegating resources, tasks and decision-making power to democratically elected lower-level authorities (Bossuyt and Gould, 2000)

Empowerment

Enhancing the social and political strength of marginalized people

Equal poverty reduction

Poverty reduction practises that address also the issues of the poorest of the poor

Food poverty line

Daily calorie intake less than 2.000 calories

Improved water supply

Piped water, public standpipes, bore wells, protected springs or rainwater collectors (UN-HABITAT, 2003b)

Informal economy / Informal sector

In Cambodia, the informal economy is defined as actions without official or solid legal status, regulation or protection by state institutions, or as actions that are identified with some of the following characteristics (Amin,2002; Becker, 2004):

- *No firm or postal address*
- *Employees are self-employed or road-side vendors*
- *No data through census survey are available or the activities are not recognised*
- *Labour-intensive nature of operations and quick turnover*
- *Use of energy input from human or animal sources*
- *Non-structured premises without regulations, licences, insurance, or taxes*

In-situ upgrading

Upgrading a community by allowing it to exist in its location e.g. by land-sharing methods

Land-sharing

Partitioning the land, so that it can accommodate both the land occupants and the owners (Rabé, 2005)

Lifetime migrant

A person living elsewhere than his/her place of birth

Mekong River Region

The Region that is crossed by the Mekong River. Composed of six countries: China, Myanmar, Laos, Thailand, Cambodia and Vietnam

Migrant

A person with previous residence in a village other than the village of enumeration (NIS, 1998)

Negative net-migration

Indicating that more people have migrated out from the province than migrated in during a certain period of time

Participation

Participating in decision-making at different levels

Participatory development

Development that is based on partnerships and negotiations rather than following a top-down project agenda

Poor

A person whose income level falls below the poverty line, a minimum level necessary to meet basic needs (\$1.25 a day/World Bank)

Poor settlement

A settlement characterized by low income level, poor housing, unsafe land tenure and inadequate infrastructure (UPDF)

Positive net-migration

Indicating that more people have migrated in than migrated out during a period of time

Poverty

Deprivation of common necessities that determine the quality of life such as food, safe drinking water, clothing, shelter, education and employment

Seasonal migrant

A person who migrates only for a short period (days, weeks, months) and returns to the place of origin to help their families e.g. in farming activities

Slum dweller

A person who is living without proper sanitation, safe drinking water, durable housing, sufficient living space or secure tenure

Socially just development

Development that considers the needs of all the different groups in society

Tonle Sap Region

Area including the Tonle Sap Lake and the five provinces situated around the lake: Siem Reap, Battambang, Pursat, Kampong Chhnang and Kampong Thom

Urban poverty

Characterized by lack of/low; income, consumption, health, education, security, empowerment in an urban area

FOREWORD

Writing this doctoral thesis has involved many ups and downs. The last six years that have taken me to conduct this study have included research work in Cambodia but also a full-time job with completely different topics in environmental management in Finland. Synchronizing work and research and working with various themes have kept me busy and extended the working time of this thesis. On the other hand, working with diverse issues has transformed my opinions, opened my eyes to the problems of society and environment from a wider perspective and convinced me that the problems are not simple. These observations are also present in this study, which is broad and multidisciplinary. Some might even say - too broad in terms of a PhD thesis.

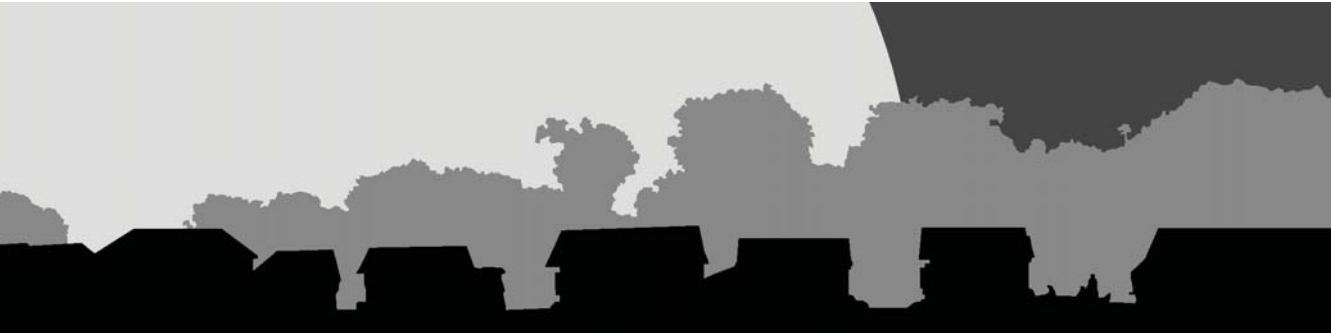
In spite of the possible contradicting opinions, I wanted to analyze the topic of this thesis as it exists in reality - how the poor in Cambodia experience their problems - and not just conduct research conforming to an academic discipline. This broad approach has divided opinions and on some level held back the study process, e.g. making it difficult to find suitable academic journals. However, in my opinion the broad and multidisciplinary approach in the field of water resources management is fresh, interesting and authentic and thus needed in today's world. This study is a monograph, but during the research process I have produced three peer-reviewed articles (Heinonen, 2006; 2008a-b) and various research reports related to the topic (Haapala, 2003a-c; Heinonen, 2005).

During the last six years, I have had an opportunity to conduct research in Cambodia for longer periods of time on three separate occasions: in 2002, 2005 and 2008. The various participatory studies and interviews conducted during these research periods have given valuable information for this thesis as well as for me as a researcher. The studies have been extremely rewarding and offered an opportunity to find hidden data sources. Moreover, they have given an understanding of the Cambodian society, economy, environment and culture, and their rural and urban characteristics. The experiences have also helped me to understand the lives of the Cambodian poor - their needs and worries.

The primary impetus for starting my PhD came from the WUP-FIN project and its team. Hence, I would like to express my gratitude to Dr. Juha Sarkkula, the team leader of the project, for letting me join the team and conduct fieldwork albeit still being a novice. Furthermore, I would like to thank my supervisor Prof. Olli Varis as well as Prof. Pertti Vakkilainen for giving me valuable advice and support whenever needed. I also greatly appreciate the support from the whole Water and Development Research Group - Matti Kummumäki, Marko Keskinen, Mizanur Rahaman, Tommi Kajander, Katri Mehtonen and Mira Käkönen - and from Hanne Laine-Kaulio and Nora Metsäranta, who have always been there to listen to my complains on the rainy days.

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Finally, I wish to thank my parents for giving me time to finish my thesis by taking care of my two sons, Aku and Oiva, while being on a maternity leave. I am also thankful for my husband, Ville, who has shared my worries, complains and interests, and occasionally made some rather candid comments on my working routines and time use. Last but not least, I want to thank my friends who have been commenting on my texts and supporting me in this sometimes endless-seeming task.



PART I: Background

1 Outlining the study: Can the poor enhance poverty reduction?

1.1 OVERVIEW OF THE RESEARCH THEME

Participation of local people, above all poor, is currently a common mantra in discussions about development. However, the recommendations and the reality do not always meet. Unfortunately, participatory development often does not fulfil its original aim – giving local people a space to develop themselves and be equal partners in decision-making.

“People cannot be developed; they can only develop themselves. For while it is possible for an outsider to build a man’s home, an outsider cannot give the man pride and self-confidence in himself as a human being. Those things a man has to create in himself by his own actions. He develops himself by what he does; he develops himself by making his own decisions by increasing his understanding of what he is doing; and why; by increasing his own knowledge and ability, and by his own full participation - as an equal - in the life of the community he lives in.” (Nyerere, 1973:60)

Genuine participation, as highlighted by Julius Nyerere already in the 1970s, still remains a challenge today. The international community and the many development organizations define participation as essential for equal development and poverty reduction. However, providing visibility, voice and space for people to participate in decision-making, giving them an opportunity to develop their living standards, continues to be a difficult task all around the world (Jaura, 2000; ADB, 2001; World Bank, 2001b; Cornwall, 2002; UN, 2005; Eberlei, 2007).

The general level of participation reached continues to remain superficial. For instance, the lessons learned from the non-governmental

organizations (NGOs) working in different development projects show that participation of local people tends to be rather limited. Neither do the development activities always assist the ones in need (Flower and Wirz, 2000; Driskell et al., 2001; Kinyashi, 2006; Masanyiwa and Kinyashi, 2008).

Frequently the contribution of local people in the development work only exists in the very first steps of participation and genuine participation is not achieved (Maria and Peruzzo, 1996; Farrington, 1999; Laitinen, 2002). The work may include information giving and consultation but it rarely empowers people to take control of development processes by giving them responsibilities in terms of decision-making, planning, monitoring and evaluation (Masanyiwa and Kinyashi, 2008).

The main challenges hindering participatory development are often related to governance. Poorly tailored policies, oppressive bureaucracy and corruption commonly compel poor people to find employment and services in the informal sector. With this definition, the poor are pushed aside from development work and decision-making (Kato et al., 2000; Baharoglu and Kessides, 2004). Further, the low level of empowerment has been identified as an obvious barrier to poverty reduction along with income, health, education and security (Baharoglu and Kessides, 2004; Sokha, 2005).

Poverty remains a major global problem. In 2005, there were 1.4 billion people living below the international poverty line of \$1.25 (World Bank, 2007). Even though poverty has decreased in recent years, the decrease has been unequal (Chen and Marillion, 2008). Poverty has also become more and more urban. Today, there are one billion slum dwellers in the world, representing one-third of the world’s urban dwellers (UN-HABITAT, 2006).

The daily struggle of urban and rural poor has recently received attention also in the political domain worldwide. The international Millennium Development Goals (MDGs), for example, put poverty high on the global development agenda - pledging to halve the proportion of people whose income is less than one US dollar a day between 1990 and 2015, and significantly improve the lives of at least 100 million slum dwellers by 2015 (UN, 2006). These statements have specific targets for all the UN member countries, including Cambodia (UN, 2004a-b; 2006; UN-HABITAT, 2005; 2006).

In 2004, over one-third of Cambodians lived under the poverty line and one-fifth under the food poverty line (MOP, 2006). In recent years, the number of people living under the national poverty line has decreased by over ten percent. However, the decrease has not been even (World Bank, 2006a-b). The studies by CDRI (2007) show that recent developments have increased inequality and the country's poor have not benefited from this rapid economic growth (Fitzgerald and Sovannarith, 2007; World Bank, 2007c). Accordingly, poverty and increasing inequality still remain major challenges for Cambodian development (Jalilian, 2008).

The Tonle Sap Region, including Siem Reap, Battambang, Pursat, Kampong Chhnang and Kampong Thom, is one of the poorest regions in Cambodia. The region comprises half of the total land area and is home to almost one-third of the country's population. (CNMC, 2004; NIS, 2005a) The annual population growth rate in the region is almost double the overall rate in Cambodia. Feeding and employing this rapidly growing population creates further pressures on food, water and natural resources (CNMC, 2004; NIS, 2005a; c-f).

Many of the poor farmers and fishermen living in the region have not benefited from the high economic growth of the last years. In fact, the lack of water management, capital and know-how as well as decreasing access to land, forests and fisheries, have made the poor villagers even poorer.

To sustain their fragile livelihoods, these people have also become increasingly dependent on land and water-based natural resources. (Ballard, 2007)

The Tonle Sap Region is regarded as strategic for the development of Cambodia. Therefore the region is also currently under great pressure to initiate development plans. Multiple development organizations, stakeholders and development plans are competing over the development of the region's water and natural resources. Even though socially just development is stated central in many of these activities at both national and regional levels, the reality behind the operations has often been different.

Water resources are strongly linked with livelihood, income, health and education in the Tonle Sap Region. Presently over one million people live in the floodplain of the Tonle Sap Lake with livelihoods heavily relying on rice cultivation and fishing. In addition, almost three million are indirectly influenced by the lake. Many of these inhabitants face numerous problems in terms of livelihoods and income generation. Hence, the fact that these people have not been genuinely empowered to participate in the decision-making regarding the development of water and natural resources is a major barrier to poverty reduction in the region (CNMC, 2004; Heinonen, 2004; Ballard, 2007).

In the face of the difficulties, migration has become a common strategy for the poor families to survive and cope with deepening poverty (Acharya, 2003; CNMC, 2004; Heinonen, 2004; NIS, 2005a; Ballard, 2007). Many rural migrants move to earn money to the country's capital city, Phnom Penh (Heinonen, 2004). This is also true for the Tonle Sap Region. Phnom Penh has attracted migrants from the country's rural areas for decades. However, it is now more than ever struggling with poor settlements and urban inequality (World Bank, 2007c).

Phnom Penh is currently showing skyrocketing economic growth, increase in the slum population and a construction boom. Coupled with poor

governance and low empowerment of the public, these trends have made evictions and discrimination of poor people an everyday occurrence. In view of the fact that the city is uncontrollably expanding to its semi-rural outskirts, this exclusive development will have an impact on the city's poverty reduction and development overall.

Poverty in Cambodia is mostly confined to rural areas. However, Cambodia also has around two million slum dwellers. In the near future this pool of people will increase annually by 214,000 and reach five million by 2015, ironically coinciding with the year the Millennium Development Goals are to be achieved. (UN-HABITAT, 2005) Thus, the urban perspective on poverty - the growing number of urban poor and the current exclusive urban development - cannot be sidelined when considering equal poverty reduction in Cambodia.

1.2 BACKGROUND OF THE STUDY

This study analyzes the interconnections between water resources, poverty and participatory development. More deeply it scrutinizes the possibilities and strategies of urban and rural poor to enhance development, take part in development processes and reduce poverty through participation and self-development.

Cambodia was chosen as a focus country in this study. There are several reasons for studying these topics particularly in today's Cambodia. In addition to the author's long standing interest in this extremely fascinating and colourful country and its history, the following points highlight the relevant issues that make the country a fruitful basis for addressing these research objectives.

- Cambodia is the poorest country in the Lower Mekong River Region (UN-HABITAT, 2005; MOP, 2006; World Bank, 2006a-b; 2008a-b).
 - Around 35 percent of Cambodians live under the poverty line, 20 percent under the food poverty line and 15 percent in slums.
- Cambodian GDP has grown fast, by over nine percent in 2007.
 - *Even so, the development has not been even; on the contrary, inequality has increased.*
 - *Above all, the growth has not reached the poorest people in the urban and rural areas of the country.*
- In the past 35 years Cambodia has experienced many turbulent periods (Guthrie, 2008; Shatkin, 1996; Tylecote, 2006; World Bank, 2006a; 2006e).
 - The Khmer Rouge period in 1975-79 disrupted the society and ruined the democracy and trust between the dwellers and the authorities.
 - The 1980s and 1990s saw numerous political conflicts and times of unrest.
 - Since 2000 the democracy has slowly revived and a decentralization process has taken place.
 - *However, there remain many difficulties in achieving genuine participation and empowering the country's poor in particular.*
 - *There are many doubts regarding the freedom of speech as well as the equality of the democratic coalition government.*
- Cambodia has a relatively low urbanization rate, 24 percent (UN-HABITAT, 2005; MOP, 2006; World Bank, 2007b).
 - The rate is around half of the average rate in East-Asia and the Pacific (42 percent).
 - However, urbanization is increasing rapidly with an annual growth rate of four percent.

- The majority of the rural population in Cambodia and in the Tonle Sap Region live on agriculture and fisheries and are greatly dependent on water resources for their livelihoods (Heinonen, 2006; Keskinen, 2008).
 - The poor farmers and fishermen have low access to irrigation facilities, know-how, capital and decision-making.
 - *Rural-urban migration is a way to cope with fragile livelihoods and increasing rural poverty.*
 - *The reasons behind migration clearly illustrate the root causes of poverty.*
- The Mekong River, which crosses Cambodia, has a great impact on the nature, economy and society of the country (MRC, 2003; Keskinen, 2008; World Bank, 2003; Lu et al., 2008).
 - The water resources of the Mekong River support the livelihoods of around three million people, and in the Tonle Sap Basin more than a million people are truly dependent on the river's water resources for their livelihoods.
 - *Basin development for water diversion and hydropower projects, conversion of wetlands and forest to agricultural land and recent climate change influence the livelihoods and thus the income of rural people.*
 - *The changes in the seasonal flooding patterns and the timing and volume of the flood will endanger the delicate social and economic balance of the already fragile communities in the Tonle Sap Region.*
- Cambodia has several development actors and programs simultaneously developing the country and there are great differences between economic, environmental and social interests within the country as well as in the region overall (Heinonen, 2004; Hirsch et al., 2006; Ratner, 2003; Varis et al., 2008).
 - The Mekong River Commission (MRC) is the major organization working in the field of water management regionally.
 - *MRC is aiming for socially just development of the Mekong Basin including Cambodia and the Tonle Sap Region.*
 - *Social sustainability and genuine participation of local people are yet to be achieved in the work of the commission.*
 - *The low level of empowerment hampers equal economic growth and poverty reduction and deepens the root causes for migration.*
- Urban areas of the country, particularly Phnom Penh, have more and more urban poor and poor settlements (Heinonen, 2004; Khemro and Payne, 2004; SUPF, 2003; Sokhum, 2005; URC, 2002).
 - The urban poor population is increasing due to rural-urban migration and fertility.
 - Urban areas are simultaneously showing a rapid investment and construction boom.
 - *The rights of the urban poor are often sidelined in this development.*
 - *Exclusive development has deepened the roots of poverty in terms of security, empowerment and infrastructure services.*
- Cambodia has strong aspirations for poverty reduction, economic growth and decentralization of decision-making (UN-HABITAT, 2005; World Bank, 2006a; Pellini, 2008).
 - The country has pledged to meet the Millennium Development Goals: halving the poverty rate from 47 to 24 percent by 2015, and improving the living standards of 50.000 slum dwellers by 2020.

- *Cambodia aims to achieve economic growth by good governance, an improved agricultural sector, infrastructure constructions, private sector growth and human resource development.*
- *By decentralization the country aspires to strengthen local democracy and participatory development.*
- the possibilities of the poor to enhance development and achieve self-management
- the future of poverty reduction and development

The focus of this study is mostly on urban poverty. Although, with the intention of understanding poverty from a wider perspective, including rural poverty, rural-urban linkages and role of participatory development, the thesis does not focus exclusively on urban areas. In order to further understand 1) the roots of rural poverty, 2) the reasons behind rural-urban migration, 3) the development regarding water resources and rural livelihoods and 4) the role of participation in rural development and poverty reduction, the study focuses on the poor villages located by the Cambodian Tonle Sap Lake.

1.3 OBJECTIVES AND CONTEXT

Based on the present course of action as well as on the high ambition of Cambodia to achieve development, the need to reach equal economic growth, poverty reduction and genuine participation is high in the country, despite being a great challenge. For this reason, the country offers a fruitful basis for analyzing the current path of development, poverty and the role of participation in the development actions, especially through the eyes of the local people.

Therefore, the study aims to elaborate the following topics:

- elements of rural and urban poverty
- obstacles faced by the poor in reducing and coping with poverty and strategies to overcome them
- current stage of empowerment in development processes and decision-making

The Tonle Sap Region has strong connections between environmental resources and the livelihoods of the locals. The region is one of the poorest in the country and has high negative migration rates. Moreover, this important region for Cambodia is a battlefield for multiple development organizations. Consequently, this study focuses on one organization, the Mekong River Commission (MRC), which is seen as the most relevant actor in the region in terms of socially just water resources management and poverty reduction.

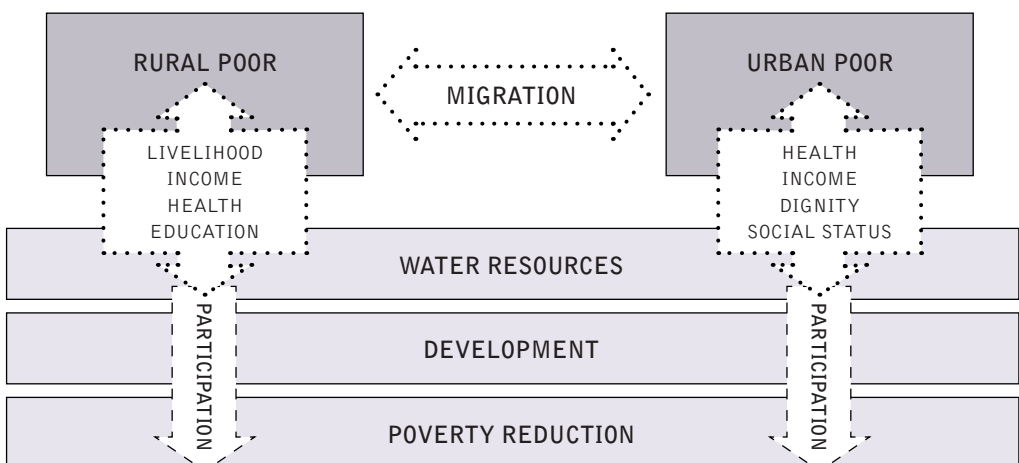


Figure 1 The linkages between water resources, poverty reduction and participatory development

Through the case study from the Tonle Sap Region, this work aims to understand the present realities of water resources management; the level of empowerment in planning and decision-making, and the capabilities of the regional actors to meet the needs of the poor dwellers, support their livelihoods and reduce rural poverty (Figure 1).

The livelihoods of rural people, particularly in the Tonle Sap Region, are put in a difficult situation due to the exclusive planning of water resources, with the locals having reduced ability to influence the decisions that have direct impacts on their lives. In the end, this development with long-standing poverty pushes many people to migrate, especially to urban areas. Since there are strong connections between the livelihoods of rural people and natural resources, the rural push and migration are seen in this study as relevant sources of information about the roots of poverty.

For that reason, the elements behind the rural push also highlight the aspects that are relevant to poverty reduction and socially just water resources management of the region (Figure 1). In the long run, the country's urban agglomerations cannot serve as a viable option for the country's rural poor. If migration and urbanization are not a focal point in water resources management, the future might include long-term costs, social problems, crowded cities and empty villages.

More deeply, this study focuses on urban poverty, particularly in the Cambodian capital city, Phnom Penh. The city has been fighting increasing poverty and inequality for the last ten years, but still slum settlements are larger than ever and conflicts between poor people and city development occur on a daily basis. The thesis scrutinizes the obstacles that the urban poor are facing while trying to develop their living standards as well as the possibilities and strategies of poor citizens to participate in the development processes. The level of empowerment of poor people in urban poverty reduction as well as the stage of community organizations and self-development to improve the living standards is a special focus in this study.

Water resources and their management are central themes in this study. Nevertheless, this study does not focus exclusively on water itself, but examines water resources by integrating them with other issues relevant to development. Seeing the multiple interconnections that water has with the lives and living standards of poor people in both the urban and rural areas of Cambodia, as well as the evident linkages to poverty reduction, water is not viewed as a separate entity in this study (Figure 1). Water resources, their role and importance for poverty reduction are examined case by case together with other issues, looking at the problem as it exists in reality. Poor people do not consider their problems through water resources, the importance of water or the lack of it. Conversely, they see the problems through the different factors that influence their lives by means of livelihood, income, health, education, dignity and social status. Therefore this study aims to analyze water in this context.

In a country that has a short history of democracy, where the decentralization process is slowly taking place, and where there is no comprehensive information about the grass root level opinions including rural and urban aspects of the current development and participation opportunities, it is interesting to examine the above-mentioned topics from the perspective of the local people. In order to elicit information and opinions from a broad audience, including poor people living in both urban and rural areas of the country, participatory studies were conducted in the villages of the Tonle Sap Region and in the poor settlements of Phnom Penh (See Chapter 4 for more information about the methods used and the study sites).

1.3.1 The seven research questions

The aim of this study is to understand the dimensions of poverty reduction in Cambodia in its entirety including various impacting factors and relationships. Very often the available reports focus either on urban or rural poverty, but the two dimensions of poverty are rarely analyzed together. This study aims to elaborate the problem as it exists in reality and above all from the perspective of poor people. Therefore, similarly to the water resources, poverty reduction and participation are analyzed

together with other issues from both urban and rural angles.

Since the topic of this study is very broad and covers multiple aspects of Cambodian development, the study does not aim to cover all these aspects in detail. As the big picture of Cambodian development and poverty reduction is painted on the background, the study elaborates grass root case studies and analyzes local observations, the present situation as well as the future development in terms of poverty reduction in the Tonle Sap Region and in Phnom Penh.

In order to make the examination of this extensive and multi-dimensional topic more structured, it is divided into sub-themes. The topic is elaborated and analyzed through seven research questions outlined below. This makes the analyses and discussions easier to handle for both the author and reader. The research questions are discussed independently in the chapters named according to the questions, and together in the major findings & conclusions section of this study (Chapters 10 and 11). The role of water resources in poverty reduction is discussed throughout the study but it is drawn together in Chapter 10.6. The key research question of this thesis - Can the poor enhance poverty reduction in the Tonle Sap Region and Phnom Penh - is, in contrast, wrapped up in Chapter 11.3. This chapter also summarizes the below-mentioned research questions.

There are seven research questions in this study: five sub-theme questions, one crosscutting question and one that makes conclusions and draws all the above-mentioned questions together. The questions are:

- I. What are the components of poverty in the Tonle Sap Region?
- II. Does recent water resources management enhance poverty reduction?
- III. How does rural-urban migration change poverty?

- IV. What are the obstacles to poverty reduction in Phnom Penh?
- V. How is participatory development supported in Phnom Penh?
- VI. Crosscutting theme: What is the role of water in poverty reduction?
- VII. Conclusion: Can the poor enhance poverty reduction in the Tonle Sap Region and Phnom Penh?

1.4 METHODS

The research theme of this study is broad, having elements from different disciplines. The theme crosses the boundaries of water resources management, development studies and urban planning. In order to obtain objective information of such a multidisciplinary topic in a country that has only a short history of democracy and independent research, multiple research methods were employed. This chapter introduces the methods and how they are used in this research. The methods, their utilization, appropriateness and limitations are discussed in Chapters 4.2.1 - 4.2.4.

The methods used in this thesis are (Figure 2):

- participatory rural appraisal (PRA) (Chapter 4.2.1)
- focus group discussion (Chapter 4.2.2)
- thematic interview (Chapter 4.2.3)
- literature review and data comparison (Chapter 4.2.4)

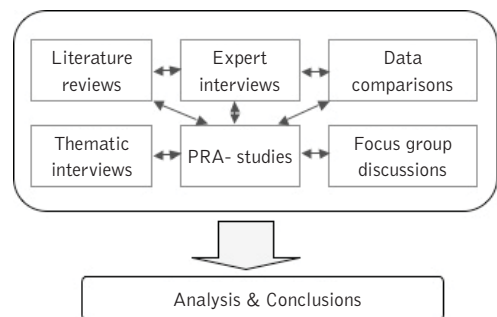


Figure 2 Research methods used

The above-mentioned methods are chosen to complement each others. Through these methods the author has been able to systematize an extensive information base including qualitative and quantitative information related to the research objectives of this thesis.

The PRA studies and focus group discussions, in particular, have offered an important source of information when aiming to understand the participation processes and the grass root perspectives in Cambodia. Overall, the methods used - participatory rural appraisals, focus group discussions and thematic interviews - have their limitations and their use may have carried inaccuracies (such as presented in Chapter 4.2). However, these methods offered valuable information beyond the existing, often quantitative, data bases in Cambodia. The qualitative information was especially needed to complement incomplete data sources, such as related to migration (e.g. in Cambodian Population Censuses 1998; 2004).

1.4.1 The research process

The research work for this thesis started in 2002. The author conducted thematic expert interviews and PRA studies in Cambodia together with the WUP-FIN team and independently. Altogether six participatory rural appraisals were conducted in the study villages in the Tonle Sap Region by the team (Haapala, 2003a-c; Keskinen, 2003a-d). Three of the studies were carried out by the author (Haapala, 2003a-c). Furthermore, in the same year there was a focus group discussion with young migrants in Phnom Penh conducted by the author (Heinonen, 2004). These studies focused particularly on migration, its reasons and impacts on urban and rural parts of Cambodia.

The preliminary data collection and analysis gradually proceeded in 2003 and 2004 along with further research completed in Finland, Cambodia and Thailand (literature studies, data comparisons and thematic expert interviews). The author identified obvious information gaps related to urbanization, poverty reduction, water resources management and participation in Cambodia. The above-mentioned research questions of this thesis were also identified (see Chapter 1.3).

In order to explore these topics and to answer the identified research questions, the author conducted supplementary participatory studies. In 2005, the author carried out participatory rural appraisals in the five communities in Phnom Penh. The studies also included water quality analysis. The author analyzed the community water supplies and formulated water use recommendations for the communities (Heinonen, 2005). In 2008, there were five focus group discussions and two supplementary focus group discussions (Kob Kong and Dey Krahorm) conducted by the author in the study communities.

Moreover, the author has completed several thematic expert interviews in Cambodia, Thailand and Finland to gather accompanying information for the research work. The author has also taken part in the relevant research seminars in the region, completed her Licentiate Thesis (Heinonen, 2004) and three peer-reviewed articles as well as several reports related to the research topic (Heinonen, 2006; 2008a-b).

More information about the methods, the study sites and the way the studies have been conducted is found in Chapter 4.

1.5 STRUCTURE OF THE STUDY

The study has eleven chapters, divided into four parts. These parts structure the broad topic of the study by first focusing on the theme and the background, then examining the topic from rural and urban perspectives and finally concluding the study. The parts should help the reader to conceptualize the work and follow the scheme of the study.

The eleven chapters give information about the special topics of the research problem independently, and thus can be read separately. However, together they answer the six research questions of this study and particularly the key question – Can the poor enhance poverty reduction in the Tonle Sap Region and in Phnom Penh?

PART I: Background

Chapter 1

Outlining the study: can the poor enhance poverty reduction?

The chapter provides a background and an introduction to the study. It structures and elaborates the six research questions, presents the content of the ten chapters and illustrates the study methods used.

Chapter 2

Introducing the country: Cambodia

The chapter provides an overall introduction to Cambodia by outlining its troubled history, governance, present demographic condition and state of water resources and management. Above all, the chapter focuses on the population, migration flows and urbanization in the country.

Chapter 3

Approaching the theme: water resources, poverty & participatory development

The chapter defines the theme of this study. It defines poverty, identifying both its urban and rural dimensions. It examines the linkages of migration, poverty and urbanization as well as the role of water resources in this network. Moreover, the chapter presents the levels of participation and its role in poverty reduction and socially just water resources management.

Chapter 4

Exploring the theme: study sites and research methods

The chapter presents the study sites: Phnom Penh and the Tonle Sap Region. It provides further information about the six rural villages in the Tonle Sap Region and the five urban communities in Phnom Penh as well as the composition of the group of migrants interviewed in Phnom Penh. Moreover, the chapter clarifies the methods used in this study: participatory rural appraisal, focus-group discussion, thematic interview and the main data and literature sources. Further, it explains how these methods are utilized in the study sites.

PART II: From village to city

Chapter 5

Reasons behind migration in the Tonle Sap Region

First, the chapter gives information about the migration flows in Cambodia by analyzing the migration flows in the country by net-negative and net-positive migration rates, the Tonle Sap Region being the one with high negative migration. Second, the chapter presents a focused case study from the Tonle Sap Region, which scrutinizes the migration from the study villages, reasons for migration as well as the role of water resources in creating the rural push. The case also elaborates the reasons behind the urban pull and its importance for migration.

Chapter 6

Socially just development of water resources: The Case of MRC

The chapter examines the role of the Mekong River Commission (MRC) in enhancing socially just water resources management and addressing stakeholder participation in the region as well as the impacts of these means to achieve equal poverty reduction. An integrated approach and wide stakeholder participation are nowadays considered critical for the work of the organization. Due to the importance of these matters, the chapter concentrates on how empowering of local people is taken into account in both the plans and implementation, and how the current way of working will influence the future development of the basin and the aims for poverty reduction.

PART III: In the city

Chapter 7

Phnom Penh: The city of 569 poor settlements

The chapter elaborates the connections between migration and urban poverty as well as the elements creating poverty in Phnom Penh. It gives detailed information about the different factors behind urban poverty: income, education, health, housing and water services, security and informality. The chapter also examines the obstacles that the

city's poor are facing when trying to gain formal employment and services and to participate in the city development plans, increasingly being prepared in the capital city.

Chapter 8

Community development and participation

The chapter analyzes the community development and empowerment of poor people in the city development of Phnom Penh. It scrutinizes the involvement of the government in the process of slum prevention, upgrading and inclusive planning. In order to understand what the actual level of community activism is and how people see the institutional setting in reducing urban poverty, this chapter presents a case study from the five poor settlements in Phnom Penh. The chapter also introduces a case from Thailand, a rather effective practice of using competent authorities and strategies to raise the living standards of slum dwellers and to increase participation.

Chapter 9

Gaining access to safe water supplies through self-development

The chapter examines the water sector of Phnom Penh by focusing on the grass root level. It analyzes access to safe water supplies in the five study communities in Phnom Penh. Safe water is seen in this study as a critical asset for poverty reduction in terms of health, education and income. The chapter focuses on the information related to water use, water quality and cost as well as the recent changes in these resources. It also aims at understanding the roles of the communities in the process of gaining access to piped water and how their participation and activism could be strengthened to meet the expanding needs of the city in the future.

PART IV: Major Findings & Conclusions

Chapter 10

Major findings: Water resources, poverty & participatory development

The chapter addresses the theme of this study through the six key research questions:

1. What are the components of poverty in the Tonle Sap Region?
2. Does recent water resources management enhance poverty reduction?
3. How does rural-urban migration change poverty?
4. What are the obstacles to poverty reduction in Phnom Penh?
5. How is participatory development supported in Phnom Penh?
6. Crosscutting theme: What is the role of water in poverty reduction?

Chapter 11

Conclusions

The chapter summarizes the major findings of the study, presents the major limitations and the future research needs and sums up the key research question of this study: Can the poor enhance poverty reduction in the Tonle Sap Region and in Phnom Penh?

2 Introducing the country: Cambodia

Cambodia is situated in the prosperously developing Mekong River Region in South-East Asia. Due to its exceptionally violent history, the country still is one of the poorest nations in the world in terms of income and human development (Sokha, 2005). In 2007, the gross national income of the country was less than 535 US\$, indicating that Cambodia belongs to the group of the world's low-income economies (World Bank, 2008b).

Today, the country is rather peaceful and stable. Infrastructure, administration and the business sector are rapidly being rebuilt, and the cultural heritage is being rediscovered. The economy is stabilizing and the recent economic performance is promising with growth rates around seven percent (RGC, 2001; World Bank, 2006a). This high economic growth is largely a result of international aid and membership of ASEAN and WTO. Access to ASEAN has also redefined the political and economic position of Cambodia in the region (RGC, 2001).

Cambodia is showing a pattern of fast economic growth, but the growth has not been distributed equally. Especially the state of human development in the country is lagging far behind the high economic growth rates. The majority of Cambodians suffer from poverty and shortcomings in health care, education, infrastructure and empowerment. At present, over a third of the population lives under the poverty line (RGC, 2001; MOP, 2006).

Even though poverty is cited as the main problem the country is facing, the concern about economic issues has recently faded to some extent, and people particularly in rural areas are nowadays more concerned about water-related issues such as widespread floods and droughts, which hinder the livelihoods in rural areas (Meisburger, 2003). The high urban population growth also creates a growing challenge for Cambodia with problems coupled to fast population growth, construction boom and human equality.



Picture 1 Cambodia

2.1 TROUBLED HISTORY

Cambodia became independent in 1953 after being under the French rule almost a hundred years. However, the Cambodian people were able to enjoy only around twenty peaceful years before the Khmer Rouge took control in 1975. Soon after this, the communist faction, headed by Pol Pot, instituted a powerful and violent reorganization of society. The aim of this reform was to transform the country into an agrarian society. In the four years that followed, under the Khmer Rouge rule, nearly two million Cambodians and ethnic minorities lost their lives due to violence, starvation and diseases. In addition, most of the educated people were eliminated, the economy was totally destroyed and urban areas were emptied. The nearly two million inhabitants of Phnom Penh, for instance, were relocated to the rural areas and the existing property rights of the capital city were abolished (Shatkin, 1996).

In December 1978, Vietnam invaded Cambodia overthrowing Khmer Rouge. The Vietnamese installed a new government and people were allowed to return to their places of origin and re-occupy empty buildings and land, except those reserved for government utilities. For the next ten years, Vietnamese army troops attempted to defeat anti-government guerrilla forces but withdrew from Cambodia when the Soviet ended their support. After the Vietnamese forces left the country, the government and the three guerrilla groups began peace negotiations. In August 1991, the four parties agreed to adopt the United Nations plan to create the Supreme National Council (SNC) as a temporary government. Prince Sihanouk returned to Cambodia as head of the SNC. The United Nations Transitional Authority in Cambodia (UNTAC) was assigned to supervise disarmament and demobilization, organize repatriation and reintegration of the 350.000 refugees on the Thai border, coordinate international reconstruction aid and guarantee conditions for free and fair elections (World Bank, 2006a; Pellini, 2008).

In 1993, a new constitution was publicized. Political power was shared by two major political parties: the Cambodian People Party (CPP) and

a royalist party, the Front Uni National pour un Cambodge Indépendant, Neutre, Pacifique, et Coopératif (FUNCINPEC). The international financial institutions resumed their relations with Cambodia and the number of aid agencies and international NGOs in Cambodia expanded. For over a decade, the country enjoyed a high economic growth driven by construction, tourism, garment industries and international aid. The political instability, however, persisted beyond the introduction of the multiparty democracy.

The tensions between the two major parties continued and eventually culminated in armed conflict in 1997. Due to the conflicts many external aid agencies suspended their assistance programs and a number of foreign investors left. In late 1997, an agreement was eventually reached to hold the second national elections with the participation of all major parties. Thirty-nine political parties ran in the national election in July 1998. Three parties - CPP, FUNCINPEC, and Sam Rainsy Party (SRP) - gained seats in the National Assembly. A new coalition government was formed in November 1998, and Khmer Rouge saw its final collapse (Kato et al., 2000; World Bank, 2006a).

Today, although the country has a democratic coalition government, many concerns remain that the opposition is still silenced and people cannot express their opinions freely. Many are also claiming that the multi-party, liberal democracy of the country has only little substance; the institutions serve the interests of the ruling class rather than those of the local people and in reality the democracy is based on nepotism and corruption (Tylecote, 2006; Guthrie, 2008).

2.2 GOVERNANCE AND DECENTRALIZATION

Cambodia belongs to the least-developed group of countries in terms of good governance, e.g. effectiveness, low corruption and good regulatory quality (World Bank, 2006c). The country's war-ridden history has had its impact on the strength of Cambodian governance and the social institutions. As a result of the massive killings and relocations, the Cambodian identity associated with family,

religion, or locality had to be built up from scratch. In addition, the country has historically an uneasy relationship between the government and the civil society. Since 1979, strengthening governance and civil society groups and building trust between the institutions started slowly in Cambodia. This process is still ongoing, and is nowadays supported by multiple international organizations and funds (Sokha, 2005).

Cambodia still relies on a top-down model of governance, which is hierarchical and weak in accountability and transparency. The citizens have little access to information and decision-making related to their well-being, the civil service system is weak and civil servants have a low salary, capacities and motivation to deliver services (Sokha, 2005). In addition, up to now the development strategies have focused heavily on economic factors rather than building social and human capital. Hence, the lack of decentralized good governance has been a clear obstacle to the development as well as to the poverty reduction policies in Cambodia. With the intention to respond to this shortcoming, the recently launched decentralisation process aims to enhance democracy and reduce poverty by decentralizing decision-making (Rusten, 2004).

The decentralization process in Cambodia started in 1992 with the Cambodia Area Rehabilitation and Regeneration Project (CARERE), a joint initiative between the Cambodian government and the United Nations Office for Project Services (UNOPS). This initiative was supported by the United Nations Development Program (UNDP) and a number of other international donors. The CARERE project aimed to increase mutual understanding between the state and civil society by supporting the decentralization of development activities, thereby devolving authority to provincial and local levels, and encouraging people to actively participate in decision-making as well as in implementing local projects (UNDP, 1999; Rusten, 2004).

The second phase of the project, CARERE II (1996-2000) started the SEILA program. SEILA was a national program supported by seven

ministries and donors, which aimed to reduce poverty through local development and improved local governance by decentralizing planning, financing and management. In the second phase of the SEILA program (2000-2005), the program already covered 20 provinces of the country (CRDB, 2004; Pellini, 2008). At the time when SEILA was initiated, participation, empowerment, gender equity, predictability, transparency and accountability were alien concepts to Cambodian governance (Rusten, 2004). The program has shown that decentralized governance is achievable by supporting the role of the communes in development and decision-making at the local level. Nowadays, the situation looks different, and empowerment is gaining importance in the country's governance.

In February 2002, the first commune elections were held to establish Commune Councils, the first elected bodies at the sub-national level to support the decentralization process (CRDB, 2004). The councils were set to:

- Maintain public security and order.
- Arrange and implement necessary public services.
- Promote social and economic development.
- Upgrade the living standards of the residents.
- Protect the environment and natural resources, national culture and heritage.
- Resolve differences of opinion and encourage mutual understanding and tolerance.
- Undertake general affairs to meet the needs of residents.

All the 1.621 elected commune/sangkat councils have, as part of the above-mentioned functions, made five-year commune development plans and three-year rolling investment plans with annual budgets (Rusten, 2004). Devolving the above-mentioned powers from province and district levels to the local level has undoubtedly created new opportunities for civil society engagement and accountability (World Bank, 2006a).

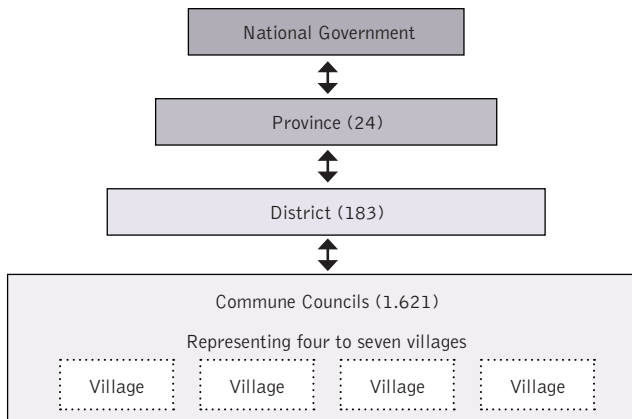


Figure 3 Administrative structure in Cambodia (Pellini, 2008)

In the new decentralized system, villages, which are the lowest level of decision-making, are not considered as administrative units, but rather as administrative arms of the communes. Each of the Commune Councils represents the needs and opinions of four to seven villages of that commune (Figure 3) (Pellini, 2008). In order to increase participation at the local level, the councils are expected to play an active role in disseminating information and educating villagers to improve their awareness of certain development issues and strategies for influencing (Rusten, 2004). Even though many of the villagers commonly have a bitter view of the local authorities, many of them count on the authorities, asking for assistance in times of emergency. Local authorities are, nevertheless, viewed as tools for gaining access to the governmental system and thus a change to help (ADB, 2001).

In response to the many failures of centralized governance, decentralization has become a worldwide trend. A decentralised government can provide space for people to participate in local development, ensure more efficient resource allocation, tailor activities according to the specific needs of the local population, and enhance local resource mobilisation. Thus, it may also pave the way for more effective poverty reduction strategies. However, it takes time before the benefits of decentralization become tangible, particularly for

the poor (Käklin, 1999; Bossuyt and Gould, 2000). For instance, in Cambodia the decentralization process is yet only partially achieved and so far there has only been a partial transfer of political power and decision-making authority to local governance (Pellini, 2008). In addition, the studies by CDRI from the Tonle Sap Region show that local officials are routinely confronted with inadequate information, scarce resources, and unclear authority structure (Ballard, 2007).

Taking a step towards decentralization in a country that has only a short history of democracy calls for capacity-building on both the demand and supply side. There is a great need for building the capacities of citizens and local governments to participate and for the government to empower the public in decision-making processes (World Bank, 2006a). Providently, there have been multiple programmes going on in Cambodia to support the capacity of local government on top of the present SEILA programme, e.g. the Commune Council Development Project, Commune and community-based natural resources management (CCBNRM), the Participatory Land Use Planning Programme (PLUP) and the Rural Investment and Local Governance Project.

In many cases local governance seems to be more powerful in terms of social, environmental and infrastructural development. The commune

councils are capable of responding to the local concerns and act as an intermediary between commune residents, the district and the more powerful outside interests. In successful cases, the local officials have been committed to improving the situation of the poor and there has been cooperation with various stakeholders. Since local governments frequently are under pressure from powerful elites or high-ranking officials for special favours and services, there are, however, still several cases where local governments lack strength and rather follow the interests of the private sector than those of the local communities (Heinonen, 2004; World Bank, 2006a; Ballard, 2007).

Changing the recent exclusive pattern of development in Cambodia and achieving poverty reduction also calls for other reforms besides decentralization. In a fast-growing economy, the market sector has a key role when aiming for socially just development. Presently the economic growth and the aspirations of the large private companies have overridden social rights. This can be seen, for example, in the present stage of economic land concessions (More information in Chapter 2.3). This process has been in many respects conducted without participatory approaches or social and environmental impact assessments. Despite the protests and requests of the villagers, whose livelihoods have been endangered due to the land reforms, their concerns have been ignored. In addition, the community members and non-governmental organizations (NGOs) raising the above-mentioned concerns have sometimes faced restrictions on their freedom of movement and assembly and pressured by the companies and the local authorities (World Bank, 2006e; UN, 2007).

2.3 LAND ADMINISTRATION

Introducing an agrarian, totalitarian communism in Cambodia during the Khmer Rouge Regime included enormous land reforms. Individual ownership of land was banned, the land registration records were destroyed, and all land parcel structures were reorganized. Due to the massive impacts of these reforms, the land administration system of the country needed to

start from scratch after the country was stabilized (Törhönen and Palmer, 2004). After the peace, all land in Cambodia belonged to the state. People were allowed to return to their places of origin and re-occupy empty buildings and land, except those reserved for government utilities. The land and houses remained the state property and people settled on a first come first served basis (Khemro, 2000).

In 1989, the government issued a sub-decree giving individuals the right to own private property based on the principle that whoever settled on a property would automatically own it. Families had to apply for the right through the local authorities. By this law Cambodians were able to buy houses and land and develop and resell them. The prices of houses and land were set freely by the owners with little or no intervention or taxation from the government. This procedure increased land speculation and raised the prices for land and houses. Even though people should have registered and applied for a certificate, the land transactions involving certificates constituted only a small proportion of the land transactions. The informal land market continues to be large (Khemro, 2000).

In the hope of a rapid economic growth, the Cambodian government privatized state land within a weak regulatory framework for several years. These land actions were less formal and conducted without consultation or transparency (World Bank, 2006e). Since the early 1990s, large areas of land have been given to private companies for investment in plantations and large-scale agriculture. Over 943.069 hectares of land in 15 provinces have been granted to private companies as economic land concessions. This constitutes approximately 15 percent of all arable land in Cambodia. Thirty-six of these 59 concessions have been granted in favour of foreign business interests or prominent political and business figures. Alone in the Tonle Sap Region, over 390.000 hectares of land have been directed to economic land concession. The provinces in which the greatest amount of land has been conceded are Kampong Chhnang and Pursat. Since this land development has not included public consultations or impact

assessments, there have been many negative impacts on the livelihoods of rural communities (UN, 2007).

In August 2001, Cambodia adopted a new Land Law. This law reformed land management and the administration gave an opportunity for distribution of land and made important tenure security improvements. The law stated that citizens have a right to request land ownership, if they can prove that they have occupied the land peacefully, for a period of no less than five years prior to the law and the land can privately be possessed (i.e. state private land). Based on this law many of the informal dwellers in Phnom Penh, for instance, may be legal possessors of their settlements and thus cannot be considered as “squatters” (Rabé, 2005).

The new Land Law also pushed land administration in Cambodia forward with a program of systematic land titling issuing titles to all owners of land. The Land Management and Administration Project (LMAP) aims to increase farmer access to formal credit, stimulate agricultural and commercial investments, productivity and employment, promote efficient land market, facilitate legal land transactions and enhance poverty reduction (CDRI, 2007). This is, however, a long project, which is probably likely to take ten to fifteen years to conduct (Dinravy and Groetschel, 2004).

In March 2003, the Cambodian government approved a sub-decree of social land concession to define criteria, procedures and mechanisms for granting social land concessions for residential use and family farming. This sub-decree is specifically directed towards vulnerable groups and apart from land, it also provides basic infrastructure and services in order to improve the living standards and livelihood of recipient families (ADB, 2007b). The concessions are aimed, for instance, to provide land for poor families, resettle families, who have been displaced as a result of public infrastructure development or natural disasters and develop land that has been underdeveloped. In practice, the initiator of the local social land concession program is the commune council. The plan can also submitted by one or more citizens or

organizations working with or on behalf of citizens in a commune (RGC, 2003).

Even though the sub-decree increases the decision-making at the local community level and supports poverty reduction, it is criticized for being powerless, since there is no land bank available for social land concession purposes and no framework for preparing and carrying out the plans. The problem of finding proper land for social purposes is, in particular, evident in the urban areas, such as in Phnom Penh. Thus, the concession land that has so far been given to people has been insufficient in size or of no value and far away from the town or urban centre. Due to these problems most of the families have abandoned the land and moved to places with job opportunities (ADB, 2007b).

Since there has also been criticism concerning the economic land concessions, the Cambodian government adopted the Sub-Decree on Economic Land Concessions in December 2005. On paper this has been an important advance in establishing the legal and regulatory framework for the granting and management of concessions, including requirements to conduct public consultations and environmental and social impact assessments. However, economic concessions continue to be granted, for instance, in indigenous forested areas without proper consultation and thus in violation of the law (UN, 2007).

2.4 ECONOMY AND THE MAIN LIVELIHOOD SECTORS

The annual economic growth in Cambodia for the last years (1994-2004) has averaged around 7 percent (World Bank, 2006a). The main engines behind this growth have been the expanding garment industry and the service sector, tourism in particular. The garment industry dominates Cambodian industry and the formal sector. Entering the US and EU markets since the mid-1990s has driven the sector to a growth rate of over 40 percent. In 2006, 330.000 workers were employed by the garment industry, predominantly located in Phnom Penh. Most of this labour force consisted of female rural migrants, who remit major

parts of their salaries back to rural areas (World Bank, 2003; 2006a).

Lately, the construction boom of new houses, hotels and other tourism facilities and government infrastructure projects have been burgeoning in the major urban agglomerations of the country: Phnom Penh, Siem Reap and Sihanoukville. This rapid development has created a high growth in the construction industry and also in employment. Over the last decade, construction activities expanded annually by an average of 12 percent and attracted large amounts of male migrants from the rural areas to the cities (World Bank, 2006a). The growing tourism industries in these cities have also benefited the service sector, which has expanded by over nine percent annually. For instance, in Siem Reap, tourism has increased annually by 20 percent (CDRI, 2007A). The above-mentioned sectors are, nonetheless, very urban-focused, and concentrated only in some specific regions. In addition, these sectors have limited linkages to rural areas and development. The tourism sector, for instance, has relatively weak linkages with the rest of the economy, particularly the agricultural sector and thus it contributes to the economy mainly through generating employment (Jalilian, 2008).

The three main components of the formal sector of the Cambodian economy are garments, tourism and public administration. Even though the contribution of the informal sector has declined in recent years as the segments of the formal sector, mostly tourism and garments have grown, the informal sector is making a significant contribution to Cambodian economy: 62 percent of GDP and 85 percent of the workforce (ILO, 2006). Agriculture is the main livelihood in Cambodia and mostly characterized as informal. About 70 percent of the population is employed in agriculture, and major part of the GDP comes from this sector (World Bank, 2001a; 2006a). Even though a majority of Cambodians draw their livelihood from agriculture, the sector is not productive. In recent years, the agricultural sector has shown rather unstable and occasionally negative growth rates. Hence, the majority of the poor in the country living on

agriculture have not benefited from the above-mentioned economic growth (Jalilian, 2008).

The agriculture in Cambodia is characterized by ineffective techniques and low productivity due to the destroyed infrastructure and low level of resources to improve the yields (World Bank, 2006a). Most of the farmers harvest only once a year, whereas in the neighbouring countries, where intensive irrigation is used, farmers are able to harvest even three times a year. The cultivation in Cambodia is still heavily based on wet season rice, and only a small share of the agricultural land is irrigated (Varis et al., 2005; World Bank, 2006a). However, lately the country has seen big irrigation projects funded by foreign donors such as Kuwait, South-Korea and Japan. These investments are part of the national plan of Cambodia to make the sector more productive by large irrigation plans, hence doubling the rice production from 7 million to 15 million tons of rice by 2015 (Madra, 2008). These large irrigation schemes, however, divide opinions and have raised doubts about their environmental and social sustainability and the real impacts on the local livelihoods of the poor.

Presently the farmers in the Tonle Sap Region cannot control the water flows, which make cultivations vulnerable to floods and droughts. The severe floods in 2000, and droughts in 2002, 2004 and 2005, for instance, harmed the livelihoods of many farmers, which was also seen in the economic growth of the country (World Bank, 2006a). In 2002, the droughts affected more than two million people and damaged 135.000 hectares of rice crops (Coren, 2002).

Fishing is also an important livelihood sector for Cambodians. The country is ranked globally as the 4th largest producer of freshwater fish. The Tonle Sap Lake is one of the richest inland fishing lakes in the world, accounting for 60 percent of the fisheries in Cambodia (Varis and Keskinen, 2006). In the Tonle Sap Region, one-fourth of the inhabitants make their living from the fishing industry. In addition, the region produces around five percent of the country's GDP. Almost two million tons of fish

are caught annually in the Lower Mekong Basin with a market value of around 1.45 million US\$ (MRC, 2003a). In addition to all the money that the fish brings, it offers a main source of protein for the local people by covering 75 percent of animal protein intake of the population (Jensen, 2000).

Family fishing is of prime importance to the poor villages in the region. However, the Tonle Sap Lake is used by commercial fisheries that exploit the resource intensively, and often in disharmony with subsistence fishing (Varis and Keskinen, 2006). In many villages the local fishing areas are under private fishing lots, where local people are not allowed to fish (Tar, 2003). Providentially, the government has lately reduced the amount of private lots in order to improve the economy of the inhabitants (Mareth, 1997; RGC, 2001). In addition to over-fishing, the fish populations of the lake are under great stress due to environmental deterioration. In particular, the loss of floodplain forests due to deforestation, which increases erosion and sedimentation, and the increased amount of irrigation network canals have been the main reason for reduced spawning grounds and lower fish catches.

In recent years, Cambodia has seen clear changes in the livelihood sectors (Figure 4). The percentage

of GDP produced by the agricultural sector has dropped from 46 to 31 percent (1994 to 2004). In contrast, the shares of service and industry sectors have grown. The industrial sector has more than doubled to cover one-third of the GDP. The service sector continues to produce a similar share. Despite their phenomenal growth and input to the economy, industrial and service sectors employed only eight and 21 percent of the labour force, respectively (World Bank, 2006a). According to the estimates of the World Bank, the role of agriculture as an employer will weaken, while the industry and service sectors will start to employ bigger shares. However, agriculture is nowadays the major employer and source of income, and continues to dominate the employment sector also in the next years (World Bank, 2003).

Being a cornerstone of the Cambodian economy, agriculture and agri-business offer significant potential for higher economic growth. The growth of this sector would have a strong impact on the livelihoods of the poor, and thus enhance equal poverty reduction. Therefore, the short- and medium-term economic development of the country, and particularly rural poverty reduction, calls for pro-poor and rural-focused actions such as securing property rights, improving infrastructure (e.g. irrigation), increasing human capital (e.g.

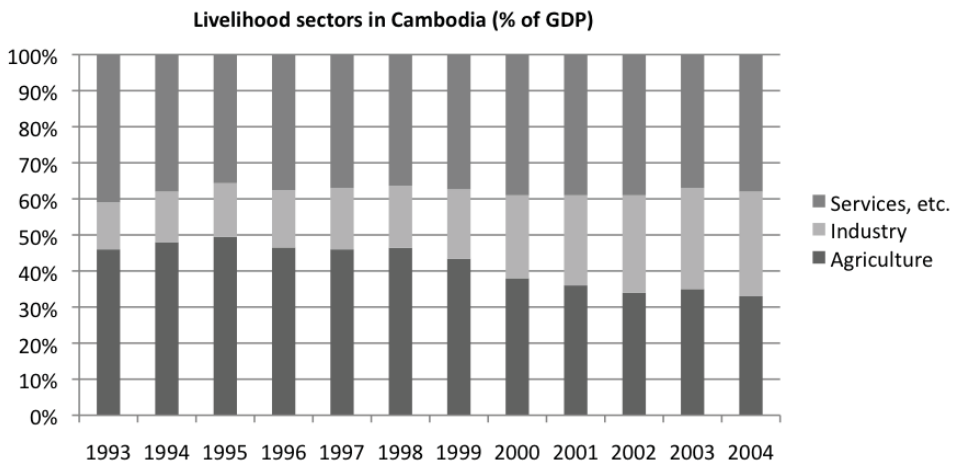


Figure 4 The contribution of the agricultural sector has diminished during the last years (World Bank, 2006d)

education) and achieving uncorrupted, stronger and pro-poor governance (World Bank, 2006a).

2.5 CAMBODIA AND REGIONAL DEVELOPMENT

Given that the Mekong Region has been developing prosperously, further growth pressures are high from within the region as well as from overseas. Since the 1980s, numerous international and national development programs and institutions have emerged in the region, and the creation of new initiatives still continues. Today, the region's institutional set-up is rather complex including international, national, governmental, non-governmental, public and private agencies and interests (Varis et al., 2008b). There are, for instance, several actors working for regional development with various aims and ways of working, e.g. the Mekong River Commission (MRC), Association of Southeast Asian Nations (ASEAN), the Asian Development Bank (ADB), NGOs, academics and donors (Figure 5) (Varis et al., 2008a). Many of the institutions have water-related issues on their agendas. They, nonetheless, have very different programs and ways to fulfil their aims, albeit their mandates as well as their member country base might be overlapping considerably (Mehtonen et al., 2008).

The six countries of the region; China, Myanmar, Laos, Thailand, Cambodia and Vietnam, share common interests towards the basin's water resources development, trade as well as infrastructure potential (Kronkaew, 2004; Hirsch et al., 2006). These interests, the shared basin and the closeness of rapidly developing Malaysia, Indonesia

and China, have lately created a momentous need for regional cooperation in Mekong (Ratner, 2003; Murshid, 2005; Hirsch et al., 2006). Even though regional collaboration is included in the aims of several above-mentioned organizations, the cooperation initiatives and activities remain fragmented. Regional planning suffers from a high level of opacity and a top-down approach as well as deficient commitment from the governmental level. In addition, the perspectives of social sustainability and broad and equal participation are missing from many of these initiatives.

2.5.1 Various actors and development aims

Economic development

The Association of Southeast Asian Nations

The Association of Southeast Asian Nations (ASEAN) is an economic coalition of ten countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. With these members the organization has provided a venue to share views of Southeast Asian development since 1999. ASEAN aims to promote economic coordination and welfare for the people in the member countries. The economic crisis in the late 1990s also triggered the need for closer collaboration with the three Asian tigers: China, Japan and South Korea (Parnini, 2005). In recent years, ASEAN has been working towards regional economic cooperation and crisis prevention also with these three countries. ASEAN covers the lower basin of the Mekong River Region, but the absence of China is still a major gap in its geographic coverage. However, with its Mekong-related initiatives (e.g. the

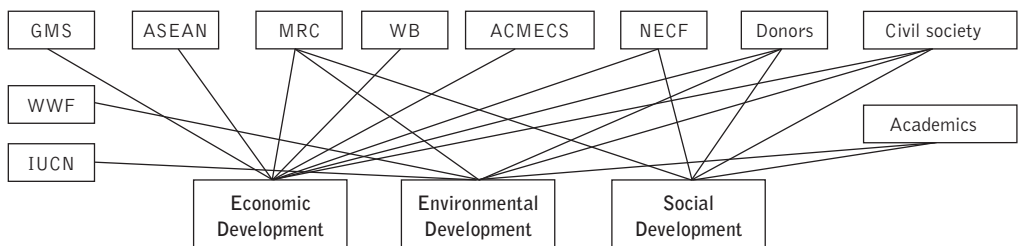


Figure 5 The regional actors and their major concerns in a nutshell

Mekong Basin Development Cooperation Framework and the Cambodia-Laos-Vietnam Development Triangle) and dialogue with China, ASEAN has a crucial role in the governance of the Mekong Basin (Badenoch, 2002; Parnini, 2005; MRC, 2006).

Infrastructure development

The Asian Development Bank

In 1992, the Asian Development Bank (ADB) launched the Greater Mekong Sub-Region (GMS), a program for facilitating sustainable economic growth and improving the living standards of the 230 million people living in the member countries. The seven main sectors include: transportation, telecommunication, energy, trade, environment, tourism and human resources (Badenoch, 2002; Krongkaew, 2004). Even though the organization mainly focuses on infrastructure development, water resources management via hydropower construction has lately gained more momentum (Mehtonen et al., 2008). GMS is currently the only regional forum in which all the six countries of the region participate. It has grown to an institution that is taken seriously by all its member governments and which operates at a high level of decision-making. In addition, the involvement of China has opened important channels for GMS for regional dialogue including the economy and the environment (Badenoch, 2002)

Environmental protection

The Mekong River Commission (MRC)

The Mekong River Commission (MRC) has a history that goes back to more than 40 years. The commission aims to promote and co-ordinate sustainable management and development of water and related resources for the mutual benefit of the countries and people's well-being (MRC, 2003c). MRC underpins socially just development of the basin and equal use of its resources. The work of the commission is challenging because the two upstream countries, Myanmar and China, have not signed the cooperation agreement. These countries have only an observer status

and are dialogue members of the organization, which significantly reduces the ability of the commission to enforce sustainable development (Woods, 2003; Campbell, 2004; Varis et al., 2008a).

Social justness

Civil Society

The possibilities of civil society to have an influence on the regional development processes are low due to inefficient or non-existent participatory strategies of the countries as well as the top-down working structures in the majority of regional organizations. Some of the organizations allow for the observations of different NGOs and foundations, but the input of the local people remains very limited. The potential of the individuals to make their voices heard also varies according to the country's level of democracy (Hirsch et al., 2006). Commonly, the voice of the civil society comes, nonetheless, from the mouths of small local elites that are involved in the work of the organizations, not from the public at large. However, the academic networks such as M-POWER, SumerNet, GMSARN and the Mekong Learning Initiative have recently taken a step to undertake research and represent the views, needs and rights of the socially vulnerable groups living in the region, and to build capacity to engage these groups more effectively in decision-making (M-POWER, 2005).

International goals

Donors

Donors and other financiers such as development banks, play an important role in directing the regional processes and dialogues. Most of the donors in the region come from outside and thus bring international aims and methods to the development work. MRC is an excellent example of a donor dependent organization. External donors provide over 90 percent of the budget, while less than 10 percent is provided by the countries of the region. ADB, in contrast, is also strongly influenced by donors, especially by the

major ones such as Japan. Therefore, the role of the donors in directing the activities is significant and they have a strong impact on drafting the agendas of the organizations and on implementation of their approaches and strategies (Ratner, 2003; Mehtonen et al., 2008).

Other aims

Agreements, platforms, organizations and funds

Besides all the above-mentioned actors, there is a plethora of other actors and initiatives in Mekong, such as the ones below (IUCN et al., 2007; Keskinen et al., 2008; Mehtonen et al., 2008). Many of these initiatives also address water-related issues.

- The Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS), which aims to bridge the economic gap of the region.
- The Neighbouring Countries Economic Development Cooperation Fund (NECF), which is the driving economic and social development cooperation in Mekong giving loans for socio-economic infrastructure development projects.
- Mekong Water Resources Assistance Strategy (MWRAS) of the World Bank, which aims to assist the countries of the region in identifying, preparing and operating sustainable investments.
- Global Water Partnership (GWP) has been active in promoting integrated water resources management in Mekong.
- The Economic and Social Commission for Asia and Pacific of the United Nations (ESCAP) has introduced a series of activities to promote the sustainable development of the Mekong River water resources among other development activities in the region.

- The World Conservation Union (IUCN) together with its partners has introduced initiatives for water governance in the Mekong Region.
- United Nations Development Program's Regional Environmental Governance Program for Asia-Pacific (REG) aims to empower local communities to take part in the decision-making process that may negatively affect environment.

2.6 WATER RESOURCES, LIVELIHOODS AND SUSTAINABILITY

2.6.1 The importance of the Mekong River to nature, people and economy

The Mekong River flows through the six countries of the Mekong River Region: China, Myanmar, Laos, Thailand, Cambodia and Vietnam. The river runs for 4.500 kilometres forming broad meanders, numerous lakes and large wetlands (FAO, 2002). The catchment area of the river is 795.000 km² and the basin is divided into two sub-basins: the Upper Mekong Basin and the Lower Mekong Basin (Mehtonen et al., 2008). The latter is significantly larger, covering over 75 percent of the total drainage area of the Mekong (Lu et al., 2008). China's Yunnan province, Laos, Thailand and Cambodia cover the majority of the basin, while Myanmar and Vietnam have markedly smaller areas. The Lower Basin is the major source of the flow of the river contributing to 80 percent of its annual discharge (MRC, 2003d; Onishi, 2008). The Upper Basin, in contrast, is the source of around half of the rivers total sediment concentrations (Kummu and Varis, 2007).

The Mekong River is located in the monsoon climate region. During the rainy season (June - October) the region has high precipitation, followed by high water flows in the river in September and October. In contrast, during the dry season (December – May) there is little or no precipitation in the region (Onishi, 2008). Due to the large variations in precipitation, the river is characterized by annual floods at the end of the wet

season and the flow of the river fluctuates seasonally with an average of 15.060 m³/s (MRC, 1997).

There are approximately 20 major tributary rivers in Cambodia, which enter to the Mekong River. Nine of them discharge into the Tonle Sap Lake, which is the biggest lake in Cambodia. This great lake is the only natural reservoir that evens out the flow of the river; reducing floods and contributing to the dry season flow. In the dry season, the lake covers an area of 2.500 km²; however, in the rainy season, when the floodwater from the Mekong River fills the floodplains of the lake, it expands to 10.000 -15.000 km². Depending on the flood intensity, the floods increase the volume of the lake from 1.3 km³ to 50 - 80 km³. In contrast, during the dry season the flow turns back to the Mekong River drying the floodplains. The changing water level offers breeding grounds for a great variety of fishes and leaves rich sediment on the floodplain for rice cultivation (Mareth, 1997; van Zalinge, 2002; Varis et al., 2005; Lamberts, 2008).

The greater part of Cambodia is lying on the lowlands of the Tonle Sap and the Mekong River. The flooded areas of Tonle Sap and downstream can reach up to 30.000 km², and thus cover around 17 percent of the country's total area. For this reason, the annual floods are a common phenomenon for the inhabitants living in central Cambodia (Mareth, 1997). The presence of the Mekong is seen in the nature, in natural resources and in the livelihoods of the inhabitants. The tributaries, the Tonle Sap Lake and the Mekong itself are crucial freshwater resources supporting food production, fishing, hydropower production, navigation and thus many sectors of the country's economy (Mehtonen et al., 2008). The silt load from the tributaries and the river, particularly originating from China, has created fertile soil in the low-land areas, and these areas have a large input in the country's rice and crop production. Additionally, the tributaries offer other benefits like water storage, flood control, irrigation possibilities, fishing and hydropower (Mareth, 1997).

The agricultural sector of the country, in particular rice cultivation, is to a great extent dependent on

these water resources. The connection between livelihoods and water resources is evident in the surroundings of the Tonle Sap Lake. There are, nevertheless, immense variations in the timing and quantity of the floods, rains and droughts as well as water quality, which influences the agricultural sector and its productivity. While agriculture is the biggest water consumer, industry and service sectors have started to take up greater shares of the total water withdrawals in the region (FAO, 2005).

Industrial activities such as the garment industry and mining are, on the other hand, high water polluters. The expanding industrial activities, overuse of land, pesticides and fertilizers and poor wastewater treatment have consequently decreased the water quality of the river. Water quality in the upper basin is fairly good, but deteriorates considerably towards the river delta (Elhance, 1999; Campbell, 2004). There have been clear increases in nitrogen and phosphorus concentrations in recent years (MRC, 2003b). The declined sediment concentrations and salination, on the other hand, are by a large extent explained by the new irrigation dams upstream that block the sediment run and regulate the water flows (MRC, 2003b; Campbell, 2004).

Having both negative and positive impacts on the environment, economy and society, floods and dams divide opinions according to their pros and cons for the development of the region (Li and He, 2008). Floods bring fruitful sediment and water to the basin and to non-irrigated fields, and offer breeding grounds for fish, but, on the other hand, their force can lead to serious damages to infrastructure, agricultural yields and threat to human lives (MRC, 2003c; Sithirith, 2006). In 2000, for instance, the most devastating flood in 40 years killed 800 people and destroyed roads, bridges and houses amounting to a total cost of 400 million US\$ (Sophal, 2001).

Dams, conversely, can reduce floods by changing and controlling the natural water flows. They also provide hydropower, irrigation water and reliable surface water sources. However, dams and reservoirs also block sediment flows and fish migrations, and offer fertile breeding grounds

for mosquitoes and other illness vectors (Miller, 2000; Li and He; 2008;). Since the local people have adjusted themselves and their livelihoods to the floods, the possible changes in the water flows may fundamentally impact the lives of the region's inhabitants (Koponen et al., 2002).

Hydropower potential and construction is a complex question with respect to the region's water resources development. Presently, the river still is one of the last rivers in the world that is not totally dammed (Campbell, 2004). The total exploitable hydropower potential in the Greater Mekong Sub-region is 168.000 megawatts and only 11.200 megawatts of this potential was harnessed in 2001 (Yu, 2003). The pressures for hydropower construction are very high and the region is seeing an enormous growth in dam planning and construction. At the moment, there are 8 completed dams, 14 dams under construction and 78 proposed construction projects (King et al., 2007).

Caused by the increasing energy demand for industrial and domestic needs, particularly in China and Thailand, the pressures to construct new dams are high. The majority of potential hydropower sources are located in China, Cambodia and Laos (Ratner, 2003; Middleton, 2007). In China, a cascade of eight large dams is under construction and planning in the Upper Mekong Basin with a total installed capacity around 15.000 MW. Today, two of the dams are complete, while further two are under construction. These plans have created concerns regarding their environmental and social impact on environments downstream of dams since no cumulative environmental or social impact assessments are being conducted (Mehtonen et al., 2008). In Cambodia, the total hydropower potential is approximately 10.000 MW, half of which is located in the mainstream of the Mekong River. Up to now, two major hydropower projects have been approved for construction and further six projects are known to be under study (Middleton, 2008).

Overall, the benefits and gains of the dams can be very different between upstream and downstream countries e.g. the Yunnan province and the

Tonle Sap Lake and, as a consequence, seriously influence the prosperity of these regions, for good or for worse. There is an evident lack of cumulative impacts assessments, transparency, consultancy and open discussion between or within the countries associated with these massive construction projects and their impacts along the Mekong River. Currently, there are eight different consulting companies working with the projects and impact assessments in the region. All these consultants have different opinions of the impacts and their severity. For instance, the predictions of the changes in dry season water level vary between 0.15 – 0.6 m. Even though these increases are small, the rising water levels would cover permanently large parts of the floodplain and thus erode the productivity of the ecosystem. Cumulative assessments are also needed to analyze the overall changes, not only caused by hydropower construction, but also including climate change, large irrigation schemes, navigation programs, and other land cover changes (Keskinen, 2008; Kummu and Sarkkula, 2008; Onishi, 2008).

2.6.2 The conflicting interests in water resources development

The Mekong River is shared by six countries and has a notable population of over 160 million. The population in the region is increasing rapidly. Of those 160 million people, now around 60 million people, and in 2025 as many as 90 million totally depend on the existence of the Mekong River in terms of livelihoods and lives (MRC, 2003; World Bank, 2003; Lu et al., 2008). The river provides water for agriculture, domestic and industrial use, transportation and hydropower, and has a mosaic of different users who have different ways of utilizing and developing the river. Within the region there is a great difference in economies, administrations, livelihoods and water demands as well as cultures of water management (Stensholt, 1997). The conflicting demands, views and concerns of how the river should be utilized and developed vary within and between the nations (Keskinen et al., 2008):

- The Chinese want for hydropower and better navigation routes.
- The Thais want water development to increase irrigation and hydropower.
- The Laotians want hydropower (mainly for exporting), better navigation and aquatic resources but are threatened by the impacts of the river's development on agriculture, fishing and bank erosion.
- The Cambodians want for irrigation, aquatic resources and hydropower but, on the other hand, are concerned about the impacts on the floodplains and losses in agriculture and fishing productivity.
- The Vietnamese want for irrigation in the delta and hydropower in the central highlands but are apprehensive of salt water intrusion due to upstream hydropower development.

The use of energy increases as the economic structure in the region is changing from agricultural production to industrial production. The electric power demand in the region is increasing annually by 7 percent. Meeting this need requires a fourfold increase in the current energy generation capacity by 2020 (Lu et al., 2008). As we have learned above, this creates demands also for hydropower development and as a result the plans for hydropower construction in the region are massive. Due to the conflicting desires between upper and lower Mekong countries, there is a great need for sustainable development plans that can maintain the ecological and hydrological balance of the river and also monitor socially just development.

The Mekong River Commission has been working for over 40 years towards an economically prosperous, socially just and environmentally sound Mekong River Basin. The commission has strong expertise in water governance - the resources that have a great impact on the region's economy and social development - and accordingly needs to be part of the regional planning if sustainable development is desired (Hirsch et al., 2006).

There is, nonetheless, still much that needs to be done in terms of regional co-operation and governance (Ratner, 2003). MRC is surrounded by regional arrangements and institutions that engage the member countries more than the commission does. The struggle of varying interests has put the commission into a situation where it has lost its position and mechanisms of fulfilling its development goals, particularly the goal of addressing socially just development of the basin and its water resources. In addition, the decision-making processes at the regional level have not been able to ensure democratic stakeholder participation, crucial to ensuring the sustainable development of the basin (Varis et al., 2008a).

More about regional water resources management is found in Chapter 6.

2.7 POPULATION

The Cambodian population has increased steadily since the 1960s, except for the violent Khmer Rouge period that can be observed as a clear population collapse (1975 to 1980) (World Bank, 2001a; UNESCAP, 2002). Due to the big baby boom, which began in the 1980s after the cruel period, the population started to grow rapidly with a higher rate than before the reforms of Pol Pot (Figure 6). Due to the high fertility and increasing life expectancy, the population is expected to grow relatively fast also in the coming years, with a population growth rate of over two percent (World Bank, 2003; 2006d). In 2004, the population of Cambodia was 13.8 million (World Bank, 2006d). By 2025, it is expected to reach 22 million (UNESCAP, 2002).

The majority of Cambodians live in rural areas, 11.2 million in 2004. The rural population is increasing steadily with the general population growth (Figure 6). Around 24 percent of the population, 2.646 million people, live in urban areas of the country (World Bank, 2007a). The urban population is still relatively small, which indicates that the country has not yet reached high levels of urbanization. The average annual growth rate, nevertheless, is over four percent, indicating that the urban population

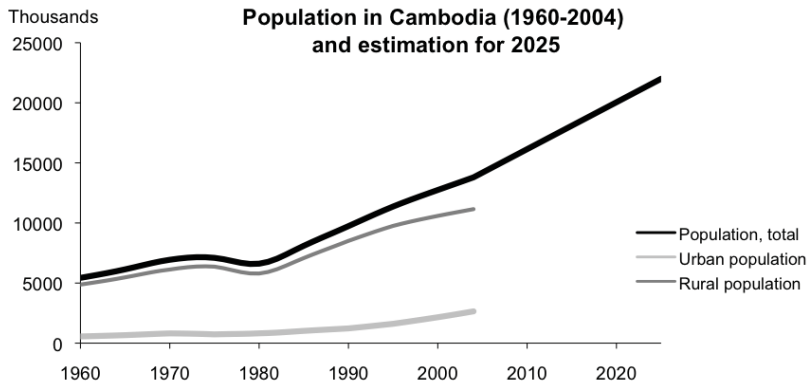


Figure 6 Urban population has increased since the 1980s (UNESCAP, 2002; World Bank, 2006d)

is increasing twice as fast as the population overall. In addition, the urbanization growth rate has risen during the last years and it is projected to grow also in the near future (UNESCAP, 2002; World Bank, 2006d; 2007a).

2.8 MIGRATION

2.8.1 The impacts of Khmer Rouge on migration

Over one-third of the Cambodian population, 4.5 million people, has migrated at least once in their lifetime (NIS, 2005a). This high rate is mostly caused by the unsteady and war-ridden past. During the Khmer Rouge regime (1975–1979), people were moved to collective farms in rural areas, and urban areas were nearly emptied. In 1979, when the Khmer Rouge regime fell and re-establishment of stability in Cambodia began, the displaced people returned to their villages and towns in large numbers. The population movements were significant. From 1970 to 1980, around forty percent of the population migrated in both urban and rural areas of the country (Rao et al., 2002).

The troubled past also has a bearing on the reasons for migration. Around 14 percent of the country's 3.6 million migrants, almost half a million people have migrated because of repatriation or return after internal displacement and six percent

because of insecurity (NIS, 2000b). The number of returned migrants among the rural population is particularly high. The large number of returned migrants cannot be explained solely by the high rural population. The fact that the internal and international displacements of the rural population that occurred during the 1970s were massive should also be taken into account (NIS, 2000b; 2005a).

The Pol Pot era still has impacts on the migration flows of today. Large parts of the land were mined and thus have been inaccessible for cultivation, construction and other purposes for a long time. This has been the case, for instance, in the provinces of Banteay Meanchey, Battambang, Siem Reap, Preah Vihear and Kampong Speu. Today, most of the landmines have been cleared out and the interest in "free" arable land in these provinces has been great. Hence, people have started to migrate back to these areas, which can also be seen in the migration flows of the country (OXFAM, 2000).

2.8.2 Present migration

Migration is still taking place in Cambodia in rather high numbers; the number of migrants has increased by four percent between the last Population Censuses representing the movement of half a million people (1998-2004). In general, migration from rural to rural areas has been decreasing and migrants during the previous years have been more likely to move to urban

areas (NIS, 2005a). Since the 1990s, a growing number of young adults from the rural parts of the country have migrated to urban areas in search of employment, as the country has opened up to a free market and showed a high economic growth (NIS, 2000b; 2005a; CDRI, 2007A).

Hence, the proportion of migrants among the urban population (56 percent) is significantly higher than among the rural population (31 percent). Migration is particularly high among young, urban residents. Over 80 percent of them (aged 20 years and over) are migrants and around 40 percent can be called recent migrants (moved in 1993-1998). In each of the urban age groups, recent migration constitutes at least 10 percent of the total migration. In addition, these numbers illustrate the urbanization process that Cambodia is slowly witnessing (NIS, 2000b; NIS, 2005a). The main targets of rural-urban migration have been Phnom Penh and the market towns along the Thai borders. People are pulled to these cities by non-farming wage jobs: construction, factory and service jobs. Also Sihanoukville, Siem Reab and Battambang have attracted large numbers of migrants with non-farming and tourism-related jobs (OXFAM, 2000).

The average distance of migration in Cambodia is short, whereas the duration has increased during the last years (OXFAM, 2000; NIS, 2005a). Around 60 percent of the migrants have moved within the province and of these 37 percent within the same district. Only 35 percent have moved to another province (NIS, 2000b; 2005a). Males have generally been more eager to migrate than females (NIS, 2000b). It is common that young males migrate for employment reasons to both urban and rural areas, while females migrate to urban areas to work in the garment factories or stay home to take care of the family.

Migration is also characterized by strong seasonal variation. Seasonal migrants are mostly moving from rural to urban areas, although agricultural and fishing jobs attract especially male migrants also to rural areas. Seasonal migrants commute every day to work or stay for a couple of months:

- In Phnom Penh, people who have motorbikes commute daily from the provinces nearby to work as motorcycle-taxi drivers in the city centre.
- In Battambang, people living in the same province or nearby commute either daily or weekly to work at the construction sites or hotels of the city.
- In Poipet, people move in non-agricultural seasons to work as paid labourers in the city.

Many of the seasonal migrants end up working longer than they expected in their destination, since the living costs in the urban areas are higher than in the rural areas. It is also common that migrants have to pay for training or invest in their new work before getting the new job. For example, many migrants that are working in the garment factories have to pay for sewing lessons before getting the job, or taxi drivers have to invest in a motorcycle (500-1.000 US\$) before being able to operate (Heng, 2002; CDRI, 2007A).

Cambodian migrants also cross the borders of the region's countries, and international migration is fairly common. In the past quarter of a century, 10 percent of the pre-war Cambodian population, amounting to around 650.000 inhabitants, has moved abroad. Many of them migrated to the neighbouring countries, Vietnam or Thailand, due to political problems, disorder and persecution. Most of these political migrants have returned to their home country after the period of violence (UNDP, 2000). However, since then Thailand and Vietnam have tempted many new migrants. Presently, there are 1.1 million inhabitants in the Mekong Region that are living in riparian countries other than their place of birth. In addition, there are probably another million undocumented or seasonal migrants in the region (Asian Migrant Centre, 2005).

The wealthier countries of the region are popular destinations for migrants from the less developed countries. Today, Thailand is populated by around 88.000 Cambodians (Asian Migrant Centre,

2005). Thailand attracts large numbers of legal as well as illegal migrants with farming jobs near the Cambodian border, with work on fishing boats and ports in the Gulf of Thailand, or with plantations, sex-trade or paid work in Bangkok (OXFAM, 2000). Economic reasons are very important push factors in international migration. The temptation is great when the neighbours return with good earnings. Migrants can earn around 300.000 riels (~75 US\$) a month at construction sites, sewing factories or cloth washing in Thailand, which is twice the monthly salary in Cambodia. On the other hand, migration needs capital. Some migrants pay 300.000 - 400.000 riels (75-100 US\$) to the middleman only for the transportation to Thailand (Derks, 1997).

2.8.3 Reasons behind migration

The large-scale migration in Cambodia can partly be explained by the large population displacements during the 1970s. However, there are also other factors than repatriation behind the high migration rates, especially behind recent migration. The decision to migrate is always personal, but very often the reasons of moving are connected to poverty, fragile livelihoods, employment, income and education.

Poverty

Around 35 percent of all Cambodians live under the poverty line and 20 percent under the food poverty line (MOP, 2006). The poverty rates are highest in rural areas, especially among households engaged in agriculture. The poorest households in the country consist of many young family members and are likely to be headed by an uneducated male.

- Poverty figures are lowest in Phnom Penh and among the families whose head has high education. Most of the poor people live in the rural areas of Cambodia, but urban poverty is also a significant problem in the country (OXFAM, 2000; MOP, 1999).

- Due to the deep poverty, even small changes in income or expenses can destroy the finances of a poor family. The problems become severe in case of a sudden illness, death, increasing interest rates, floods, low rice yield or death of a work animal. In this case, the family usually has no other choice than to sell land, take a loan with a high interest rate or migrate (Derks, 1997).
- The human development side of poverty - security, dignity, and equality - can also underlie migration, particularly for females (COHRE, 2008).

Fragile livelihoods

Nearly 85 percent of Cambodians rely on agriculture as a source of livelihood. These livelihoods are facing many problems, e.g. low irrigation, pests, floods, droughts and landlessness, which decrease the productivity of the land.

- The land area per person has been decreasing. For instance, in the ten years between 1990 and 1999, the cultivated land area decreased by nearly 30 percent from 0.29 ha/capita to 0.21ha/capita. Together with a growing population, this is pushing the rural livelihoods towards rough times (OXFAM, 2000; MOP, 2001).
- Nearly 20 percent of the households have no land. The percentage of landless people is highest in the Tonle Sap Region. Over 17 percent of the households are landless in Tonle Sap, whereas in the coastal areas of Cambodia only nine percent of the households have no land (OXFAM, 2000; MOP, 2001).
- Land distribution in Cambodia is not equal; the richest 10 percent of the households own 40 percent of the land while the poorest 40 percent own only 12 percent (MOP, 2001). In addition, some parts of the usable agricultural land are still mined, and often the tenure of land is insecure.

- Floods and droughts devastate Cambodian rice cultivation. For instance, in 2002 the droughts affected more than two million people and damaged 135.000 hectares of rice. In the same year, the floods, in contrast, influenced the lives of 1.5 million people and covered almost 60.000 hectares of land.
- The erratic weather conditions of the region - insufficient rains in the early wet season delaying rice planting and withering rice crops and, on the other hand, floodwaters after heavy rains in the wet season destroying the rice yields - are most probably becoming even more irregular due to the uncertain climatic future (Li and He, 2008; Penny, 2008).
- The climate-driven hydrological change will have impacts on the Mekong and Tonle Sap hydrology, affecting biodiversity, fish populations and wetlands, and through these resources influencing the subsistence livelihoods of the regions' inhabitants (Kummu and Sarkkula, 2008; Penny, 2008).
- The extensive hydropower construction plans in the Mekong River affect the natural flow of the river and change the present situation, including the conditions for rice cultivation and fishing. The opinions about the changes and their impacts vary greatly (Li and He, 2008).

Employment

Almost 22 percent of migrants in Cambodia have moved because of economic reasons, work opportunities or employment. In addition, over a third of migrants indicated that the main reason for their migration was moving with their families, which was also mainly connected to economy and working opportunities (NIS, 2000b; 2005a).

- The quantity of workforce is increasing rapidly especially in the rural areas of Cambodia. In the five-year period from 1993 to 1998, 150.000 new workers have entered the labour market annually. As a result of the second baby boom in the early 1990s, over the next

five years more than 200.000 young people are going to enter the labour market every year (World Bank, 2006a).

- The agricultural sector is providing and will offer the major portion of employment opportunities in rural areas. However, there will be a large number of unemployed people, who will not be absorbed by the sector, since there are not enough employment opportunities or spare land available for cultivation. Some minor expansion in the services and small industry sectors has occurred, but much greater effort needs to be made in this respect (UNDP, 2000a).
- Many of the currently unemployed are women, handicapped or injured by mines, and other disadvantaged people. Unemployment is particularly high during the agricultural off-season; hence this is also the time for the seasonal migration to take place (OXFAM, 2000; UNDP, 2000).

Income

The socio-economic conditions are different in urban and rural areas, and the rural inhabitants have many disadvantages in several aspects of life. One of the clearest differences is the average income.

- The average monthly income in a Phnom Penh household is around 1.139.553 riels (285 US\$) compared to the 314.247 riels (79 US\$) in rural areas. The average urban person has hence 3.6 times more money to use than the rural inhabitant. However, the living expenses are higher in the urban areas, which even out the differences to some extent (MOP, 1999).
- The remittances sent by the migrant family members working in urban areas have an impact on the income of the rural households. About 13 percent of rural households having migrants working in the cities receive remittances, on average ca. 327.000 riels (82 US\$), corresponding to around 10 percent of the total household consumption (World Bank, 2006a).

Education

Education is not a dominant reason for migration in Cambodia, since only around two percent of migrants have moved for educational reasons. Most of these migrants have moved to the large cities such as Phnom Penh where the education system is more comprehensive. Educational migration is higher among males and in the urban population (NIS, 2000b).

2.8.4 Rural-urban migration

Around 70 percent of migration in Cambodia takes place between rural areas (Figure 7) (NIS, 2005a). This trend is understandable considering that agriculture employees constitute around 70 percent of the country's economically active population. Among the recent migrants, males have been more likely to move to rural areas and females to urban areas (Acharya, 2003; OXFAM, 2000; NIS, 2005a). This tendency can be explained by the dominance of agricultural jobs typical of males in rural areas and by the increasing garment industry employing females in urban areas.

The migration flows in the country are slowly changing, and presently the migrants tend to move to urban areas. Almost 15 percent of migration takes place from rural to urban areas and 10 percent between urban areas (NIS, 2000b; NIS, 2005a). The net-migration to urban areas accounts for around 7 percent of the migration. In reality, this number is even higher due to high seasonal migration.

The impact of increasing rural-urban migration is seen in the urban population; the percentages of "recent" and "very recent" migrants increased from

3.6 percent to 7.1 and from 13.8 percent to 22.4 percent, respectively, in the two-year period from 1996 to 1998 (NIS, 2000b; Acharya, 2003). The noteworthy migration flows between urban areas, on the other hand, indicate that the smaller cities may suffer from population decline as the larger cities, such as Phnom Penh, are experiencing population growth (Rao et al., 2002).

The main destinations for urban migration are Phnom Penh, Sihanoukville, Siem Reap, Battambang as well as the market towns along the Thai border. These towns have attracted migrants to work in the construction industry, factories and service sectors, and in the growing tourism sector (OXFAM, 2000; Acharya, 2003). Phnom Penh is an important political, financial and educational centre of Cambodia and has been the dominant centre of attraction for a long time (De Ville & Westfall, 2001). Even before the Khmer Rouge regime, permanent and seasonal migrants constituted a major part of the city's population (Sokhum, 2005).

2.9 URBANIZATION

The Cambodian Population Censuses from 1998 and 2004 estimate that around 16 percent of Cambodians are urban (NIS, 2000b; 2005a). However, when taking into account the below-mentioned deficiencies in these studies as well as the high seasonal migration taking place in the country, the urbanization rate today is higher than presented in these studies. Rao (2002) and ESCAP (2005) have different approaches than the above-mentioned analyses and thus they estimate that around 18 percent of the population lives in urban

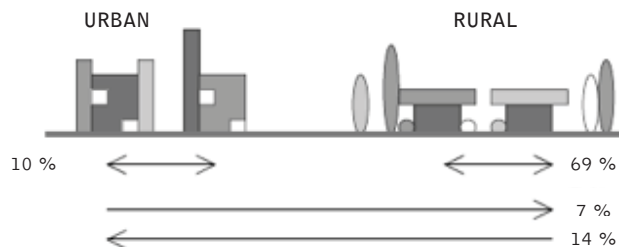


Figure 7 The net rural-urban migration is around seven percent (NIS, 2005a)

areas. The World Bank gives an even higher estimate of 24 percent. There are also great variations in the estimates of future urbanization, but the trend is familiar; urbanization is increasing in the country (Rao et al., 2002, World Bank, 2006d).

Even though there are many reasons why urbanization is taking place, rural-urban migration is one important factor that has a remarkable effect on urbanization. Rapid urbanization is a big dilemma in several developing countries. Many problems with inadequate infrastructure and employment have occurred due to high migration rates. At present, the problems are not yet very deep in the Lower Mekong River Region, where the urbanization rates are around 20-30 percent. The estimations, however, show that urbanization will increase rapidly in the future and reach 30-40 percent by 2030 (Figure 8).

In recent years, Cambodia has seen clear changes in the livelihood sectors. The shares of service, tourism and industry sectors have grown (e.g. chapter 2.4.). These changes have augmented the importance of the urban areas and increased rural-urban migration. The overall development in the country is also very much focusing on urban development, which has also increased the importance of urban areas. The role of Phnom Penh for Cambodian society and economy, for instance, has become crucial and thus it can be said that the power and

domination of this urban agglomeration is very strong nowadays. If the country's development plans continue to be so urban orientated also in the future, the role and power of the urban areas in Cambodia will increase in the future.

Since urbanization leads to many significant changes in societies and economies, there is also a need to reform the governance structures to support partnerships between local governments, civil society organizations as well as the private sector to make the urbanization inclusive and sustainable (ESCAP, 2005).

2.9.1 Urban areas of the country

Urban areas in Cambodia are defined in the Cambodian Population Census (1998) as follows:

- The four urban districts (city centre) of Phnom Penh.
- The entire population of Krong Pailin, Krong Keab and Sihanoukville.
- The population of the provincial capital of all the other provinces.

This definition is, however, somewhat vague. For example, the secondary towns, which are sometimes very vital in Cambodia, are not included in the analyses of urban areas. The

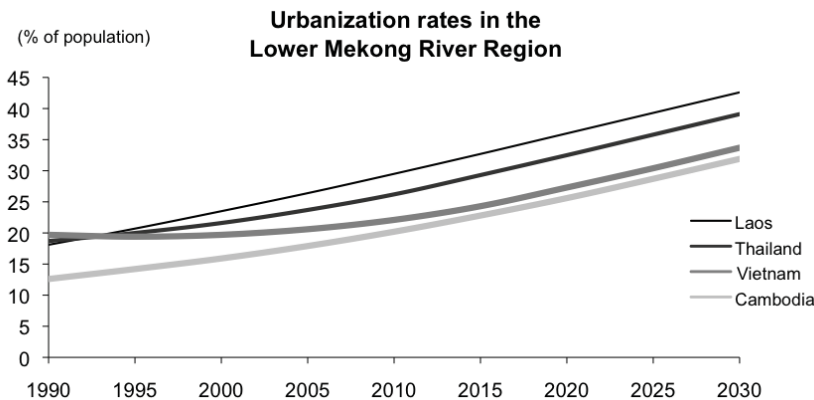


Figure 8 Cambodia has the lowest level of urbanization in the Lower Mekong River Region (ESCAP, 2005)

Table 1 Urban population in the 10 largest cities/towns in Cambodia, 1998 (NIS, 2000b)

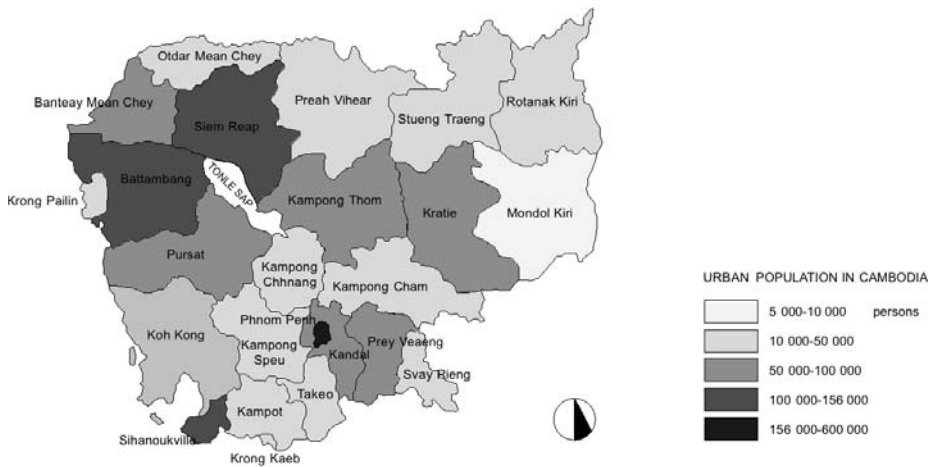
Rank	City/Town	Population
1	Phnom Penh	570.000
2	Krong Preah Sihanouk (Sihanoukville)	155.690
3	Svay Pao (Battambang)	139.964
4	Siem Reap	119.528
5	Serei Saophoan (Banteay Meanchey)	98.848
6	Kratie	79.123
7	Stung Saen (Kampong Thom)	66.014
8	Takhmau (Kandal)	58.264
9	Sampov Meas (Pursat)	57.523
10	Kampong Leav (Prey Veang)	55.054

definition only highlights the capital cities of the provinces. Even though the population in these towns is rather small, they cannot be excluded from the analysis. Further, the whole provinces of Krong Pailin, Krong Keab and Sihanoukville are defined as urban. Although these provinces are rather small, the outskirts of these provinces cannot be considered urban. By defining these rural areas as urban, the urban population in these provinces is definitely overestimated. Due to the above-mentioned problems in the definition, this study has also used the reanalyzes of Rao et al. (2002), specifying the urban areas in Cambodia.

Four provinces in Cambodia are considered urban - Krong Kaeb, Sihanoukville, Krong Pailin and Phnom Penh - since over half of the population of these provinces live in urban areas. Also Otdar Meanchey, Stueng Treang, Mondol Kiri, Kratie and Koh Kong have relatively high urbanization rates (Picture 2). The provinces around Phnom Penh and the Tonle Sap Lake, on the other hand, can be considered rural, since less than 20 percent of the population live in urban areas, mainly in the provincial capitals (NIS; 2000a).



Picture 2 Phnom Penh, Krong Pailin, Sihanoukville and Krong Kaeb are urbanized provinces (NIS, 2000a)



Picture 3 Phnom Penh, Battambang, Siem Reap and Sihanoukville have highest urban populations (NIS, 2000a).

However, based on the number of people, the highest urban populations are concentrated in Phnom Penh, Sihanoukville, Battambang and Siem Reap (Picture 3) (NIS, 2000a, 2005a). In the Tonle Sap Region and around Phnom Penh, the urbanization rates are low; even so the amount of urban dwellers is conversely high. The provincial capitals around the Tonle Sap Lake (e.g. Battambang) are relatively large and vital, even though they make up only around 10 percent of the Cambodian population. In addition, there are many lively secondary towns in these provinces.

Cambodia's urban population of over two million is spread over the country's 35 towns. The towns are usually relatively small; only twelve of them have a population of over 30.000 while most of the towns have a population of 10.000. Phnom Penh, Sihanoukville, Battambang and Siem Reap have a population exceeding 100.000 and are thus the only urban agglomerations that can be called cities (NIS, 2000b). Phnom Penh has an urban population of over half a million, almost four times the population of the second largest city, and thus can be considered the primary city in Cambodia (Table 1) (NIS, 2000b; 2005a; Rao et al. 2002).

3 Approaching the theme: water resources, poverty & participatory development

3.1 DIMENSIONS OF POVERTY

3.1.1 Poverty - low income and human development

The poor are not a homogenous group. Poor people have diverse needs and vulnerabilities according to their gender, disabilities, ethnic and racial backgrounds, household structures and places of residence. Nevertheless, they share two common characteristics that are creating poverty: low income and human development (Baharoglu and Kessides, 2004; Sokha, 2005):

- Low income is associated with the lack of essential human development services e.g. health care, sanitation, safe drinking water, education, housing and security.
- Low human development is associated with deprived knowledge, participation, production potential and competence in organizing, demanding, bargaining and negotiating.

The level of income is easy to analyze and understand. Therefore, it is frequently used as a measurement when talking about scarcity. Human development, however, seems to be the biggest

question in tackling poverty. Frequently, the poor themselves see low human development e.g. powerlessness, vulnerability, physical and social isolation, and lack of security, self-respect and dignity, as root causes for poverty (Robb, 1998).

Baharoglu and Kessides (2004) define poverty as a combination of five elements: income, health, education, security and empowerment (Figure 9). This broad combination includes elements related to low income but also highlights the importance of human development, in this case empowerment, when tackling poverty. This definition is also used in this thesis.

3.1.2 Rural and urban poverty – different needs for poverty reduction

Rural and urban poor have different living environments, abilities and problems. Due to these differences, poverty reduction calls for actions designed especially to tackle the dilemmas in question. There is a great need for specific policies and programs directed at reducing rural and urban poverty.

Policies for urban poverty reduction need to be implemented in the context of complex urban environment, including economic and spatial aspects. Nonetheless, urban governance has frequently failed to achieve sound planning in the face of rapid economic growth and development. Corruption, poorly-tailored policies, and burdensome regulatory requirements have led to a variety of deprivations in the lives of urban poor. These include insufficient infrastructure, education and health care as well as social exclusion (Baharoglu and Kessides, 2004). On the

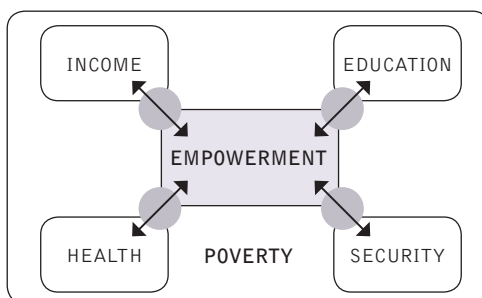


Figure 9 The five elements behind poverty (Baharoglu and Kessides, 2004)

other hand, these deprivations further diminish the abilities of the urban poor to break out of the poverty trap (World Bank, 2006a).

Today, a majority of the urban poor are living in squatter settlements with limited access to services, secure housing tenure and formal work. These people are vulnerable to evictions because of city development. Forced evictions are a widespread phenomenon in the developing cities and primarily in conjunction with informality (COHRE, 2008). Therefore, the critical problems for the urban poor revolve around housing rights and opportunities for decent income generation and work. Due to deep informality, the poor are frequently left out of the decision-making processes of the city. Hence, there is a great need for policies targeted at the informal sector and empowerment of the poor.

In contrast, the critical problems of the rural poor are associated with access to agricultural land and natural resources (Engvall et al., 2007). A majority of the rural poor depend heavily on local natural resources (e.g. fishing waters and forests). These resources serve as subsistence income or as inputs in production, and offer a safety net in the years of poor harvests. Unfortunately, there is a common trend that the natural capital accessible to the poor is running out. The participatory poverty assessments (PPAs) from the Cambodian Tonle Sap Region, for instance, show a clear decrease in access to natural capital (World Bank, 2006a).

Access to land is also a critical issue for rural poverty reduction (World Bank, 2007c). Access to land - own or rented - categorizes the rural poor into cultivators and non-cultivators.

- Cultivators have access to land as small landowners or tenants. These households depend largely on agriculture, fishing, forestry, and related small-scale industries and services (Khan, 2001). Most of them are dependent on water control infrastructure (e.g. flood control and irrigation) and the lack of these services creates a high production risk (World Bank, 2006a).

- Non-cultivators are landless and often unskilled. These dwellers are perhaps the poorest among the rural poor. Since these households do not have land or capital, and they often suffer from low know-how, they depend greatly on migration and paid labour demand to sustain their income (Khan, 2001).

Since the rural poor are greatly dependent on land and natural capital, short- to medium-term rural poverty reduction requires significant improvements in the productivity and profitability of small-scale farming (World Bank, 2006a). This development depends heavily on the degree of collaboration between the government, donors, civil society and other key stakeholders to better support and empower small-scale farmers in terms of secure tenure and access to natural resources, effective water management and affordable credit (World Bank, 2006b).

The general future trend is that agricultural activities will decline and wage labour will increase. This will diminish dependence on agricultural activities and above all the impact on the future of small-scale farming. Since small-scale farming is decreasing and there already exists great seasonality and differences in the vulnerability and coping strategies of the poor, rural poverty reduction cannot rely purely on improved agricultural productivity. Poverty reduction also requires enhanced income earning opportunities, education, vocational training, gender equality, and access to the wider economy (Robb, 1998; World Bank, 2006a; Engvall et al., 2007). With these actions the entire heterogeneous group of rural poor can be targeted.

3.1.3 Poverty reduction as an international development target

Poverty reduction has distinct linkages with environmental conservation, gender equality, decent work, better human rights, improved health and enhanced education (Quisumbing et al., 1995; UNFPA, 2001; Abayawardana and Hussain, 2002; Phipps, 2003; ILO, 2004). As a result of the

Table 2 The Millennium Development Goals (UN, 2005)

Goal 1. Eradicate extreme poverty and hunger	Target 1. Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day Target 2. Halve, between 1990 and 2015, the proportion of people who suffer from hunger
Goal 2. Achieve universal primary education	Target 3. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
Goal 3. Promote gender equality and empower women	Target 4. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.
Goal 4. Reduce child mortality	Target 5. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate
Goal 5. Improve maternal health	Target 6. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio
Goal 6. Combat HIV/AIDS, malaria, and other diseases	Target 7. Have halted by 2015 and begun to reverse the spread of HIV/AIDS Target 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
Goal 7. Ensure environmental sustainability	Target 9. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Target 10. Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation Target 11. Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers
Goal 8. Develop a global partnership for development	Target 12. Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Target 13. Address the special needs of the least developed countries Target 14. Address the special needs of landlocked developing countries and small island developing states Target 15. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long run Target 16. In cooperation with developing countries, develop and implement strategies for decent and productive work for youth Target 17. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries Target 18. In cooperation with the private sector, make available the benefits of new technologies, especially information and communications technologies

strong linkages between poverty and other aspects of human development, poverty reduction is declared as the main target in the development agendas worldwide. Moreover, poverty reduction has a major role in the Millennium Development Goals (MDGs) (Table 2).

The Millennium Declaration was adopted by 180 member countries of the United Nations (UN) in September 2000. The declaration contains eight goals, which range from eradicating extreme poverty to developing global partnerships for development (Table 2). The goals include eighteen specific development targets. Each of them has a time frame and indicators to monitor the achievements (UN,

2005). Furthermore, the UN member countries have their own individual targets to achieve these international goals. Three of the eighteen targets – Targets 1, 10 and 11 – are further elaborated in this study, given that they address poverty reduction and the role of water in development.

The Millennium Development Goal No.1 addresses eradication of extreme poverty and hunger. Target 1 of this goal aims to halve the proportion of people whose income is less than one US dollar a day between 1990 and 2015 (UN, 2005). It thus aims to reduce the poor population in the world from 28 percent in 1990 to 12.7 percent in 2015. The target has an impact on 363 million poor living in extreme poverty around the globe. (UN, 2003b)

- In Cambodia, achieving the target means reducing the poverty rate from 47 percent to 24 percent (RCG, 2007). In order to achieve the goal, the Cambodian target is divided into three sub-targets (MOP, 2003):
 1. Reducing the proportion of people whose income is less than the national poverty line from 39 percent in 1993 to 19.5 percent in 2015.
 2. Increasing the share of the poorest quintile in national consumption from 7.4 percent in 1993 to 11 percent by 2019.
 3. Reducing the proportion of working children (aged between 5-17 years) from 16.5 percent to 8 percent in 2015.

The Millennium Development Goal No. 7 addresses environmental sustainability. Two of the three targets of this goal – Targets 10 and 11 – are a particular focus of attention in this study as they address urban poverty and access to safe water and sanitation:

Target 10 aims to halve the proportion of people without access to safe drinking water and basic

sanitation by 2015. By reducing water-related diseases and other water-related burdens, the target has a possible impact on the quality of life of almost one billion people. Lack of improved water supplies such as piped water, public standpipes, bore wells, protected springs, or rainwater collectors and that of adequate sanitation is common particularly among the rural and urban poor. There is a need for water resources that are sufficient in quantity and quality, affordable, and available without excessive physical effort and time. Adequate sanitation such as private or shared toilets, pour-flush latrines or VIP latrines is also a crucial key for poverty reduction, which is, however, often under evaluated (UN-HABITAT, 2003b).

- In Cambodia, this far-reaching target is divided into two sub-targets (MOP, 2003):
 1. Increasing the proportion of rural and urban population with access to a safe water source from 24 percent and 60 percent in 1998 to 50 percent and 80 percent in 2015, respectively.
 2. Increasing the proportion of rural and urban population with access to improved sanitation from 8.6 percent and 49 percent in 1998 to 30 percent and 74 percent in 2015, respectively.

Target 11 addresses urban poverty. The target seeks to improve the lives of at least 100 million slum dwellers by 2020. This will be achieved by addressing secure tenure, safe drinking water, improved sanitation, housing durability, and sufficient living space (UN-HABITAT, 2003b). The target focuses on the living conditions of 100 million people. Nonetheless, globally this only scratches the surface of this immense problem.

Currently, around one-third of the world's urban populations, one billion people, reside in slum settlements. The urban areas of South-East Asia alone are populated by over 60 million slum dwellers. The number is projected to reach 90 million people in the next fifteen years (UN-HABITAT, 2005a; 2005b).

- In Cambodia, the target seeks to improve the living standard of 280,000 people and, in Phnom Penh, around 50,000 people by 2020. This covers around 5 to 10 percent of the total slum population of the country and the city (UN-HABITAT, 2005).

Achieving Target 11 makes only a moderate change in the world's slum population. However, this international target has put discussion about slumming and elevated slum settlements on the agendas of the development plans also in Cambodia (UN-HABITAT, 2005b).

3.1.4 Poverty and MDGs in Cambodia

There are numerous characteristics in an economy and society that create and perpetuate poverty (Khan, 2001). Cambodian poverty has deep roots in the three decades of conflict and isolation. The political violence has had profound negative impacts on the overall development of the country. These include destroyed infrastructure, depleted human capital, weakened social capital and unresponsive institutions (World Bank, 2006a). Past instability has thus made the country a very unfruitful soil for democracy, economic growth and equal poverty reduction.

As a result, Cambodia is still one of the poorest countries in the world, ranking 130 out of 177 countries in human development (UNDP, 2004). In 2004, 35 percent of all Cambodians lived under the poverty line and 20 percent under the food poverty line (MOP, 2006). Nonetheless, Cambodia has made significant progress in reducing poverty in recent years. The proportion of the population living below the national poverty line fell from 47 percent 10 years ago to 35 percent today. In this decade, the country has achieved annual economic growth of over 7 percent (World Bank, 2006a).

Despite these developments, the economic growth has not been equal. In reality, the inequalities have risen sharply. The extremely poor have not experienced significant growth in real consumption levels and the high economic growth has not seen a counterpart in poverty reduction (World Bank, 2006a-b; Engvall et al., 2007; Jalilian, 2008). Even

though the economic growth in Cambodia has been comparable to the fast growing economies in East Asia, poverty reduction has been similar to that in the slowly rising economies in Sub-Saharan Africa (Jalilian, 2008).

In Cambodia, rural poverty is to a great extent more extensive than urban poverty. Over 90 percent of the poor live in rural areas (MOP, 2006). Poverty rates are highest in the remote rural areas with limited access to roads, markets and basic services. The rural areas of the Tonle Sap Region and the Mountain Plateau have the highest poverty rates and severity. In these regions, the families experiencing the deepest poverty are engaged in agricultural activities or employed as domestic workers (World Bank, 2006a).

Even though poverty in Cambodia is an extremely rural phenomenon, there are clear signs that urban poverty will increase in the future (MOP, 2006), especially if the development pattern remains the same as it has been for the last decade. The growth has been heavily urban-based depending on manufacturing and services, while the agricultural sector and the rural economy have been lagging behind. This will lead to increased landlessness and declining access to common property resources. This development will increase rural-urban migration and ultimately urban poverty (World Bank, 2006a).

Land is a critical issue for poverty reduction in both rural and urban areas of Cambodia. The country is still dominantly an agricultural society and issues of land therefore have crucial impacts on most rural people's lives (Törhönen and Palmer, 2004). Landlessness has been cited as the main cause of widespread poverty in rural Cambodia (UN, 2007). Nevertheless, the growing population also in urban areas causes escalating pressure for land management, particularly in Phnom Penh. Moreover, insecure land rights are one of the main issues hindering urban poverty reduction (Amin, 2002).

To fight the deep roots of poverty, Cambodia is along with the other UN member countries firmly

committed to bridging the gap between the global commitments and national progress. A National Poverty Reduction Strategy (NPRS) from 2002 and the commitment to achieve Millennium Development Goals, for instance, have produced results. There has been an evident decrease in the poverty rate and improvements in access to water supply and sanitation (MOP, 2003; RGC, 2006):

- In 2004, a decrease of over a 10 percent in the national poverty rate was achieved.
- Access to safe water sources has increased to 42 percent in rural areas and 76 percent in urban areas of the country. These are both greater increases than the mid-targets for 2005.
- Rural sanitation has increased to 16 percent, which also exceeds the intended 12 percent.
- Improved sanitation has not increased at a similar rate in the urban areas and the present 55 percent is 4 percent behind the mid-target level.

Even though the above-mentioned achievements have followed the targets of the MDGs by mid-term rather well, there still remain great challenges. Inequality in poverty reduction as well as the inability to reach the poorest of the poor still remain challenges that require greater pro-poor orientation and improvements in the employment

sector, including the informal sector (World Bank, 2006a-b; CRG, 2007; World Bank, 2008a-b).

The growing urban population is also a challenge that needs to be considered carefully when aiming for poverty reduction. The large influx of rural poor into the urban areas and the low capacities of the cities to respond to this extreme growth have hindered the development. This is evident in urban sanitation, which has not improved at a similar rate as rural sanitation, and in the achievements in Target 11 (RGC, 2007a; Heinonen, 2008a).

Overall, improving the lives of slum dwellers has not been a success in Cambodia. Instead, reverse development has taken place. Since the 1990s, the number of slum dwellers has increased annually by 86,000. In the time frame of the MDGs it is estimated that the population will swell annually by 214,000 people and reach 5 million (Figure 10) (UN, 2004a; UN-HABITAT, 2005). These figures show that urban poverty is becoming a growingly critical obstacle to the development of the country and to the aspirations to achieve equal poverty reduction.

3.2 PARTICIPATORY DEVELOPMENT

Participation began to attract wide attention in the mid-1970s, when the development agencies wanted to achieve greater impacts for their work (Cornwall, 2002). Participation was seen as a key to

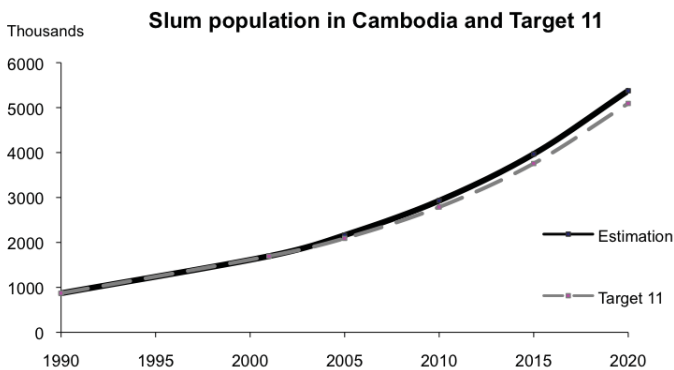


Figure 10 The slum population in Cambodia is increasing at a high rate (UN-HABITAT, 2005)

promoting efficiency, equity, capacity building and sustainability. The method offered local people opportunities to put forward their problems and priorities (Schneider and Libercier, 1995; Hari, 1995).

Today, participation continues to have a central role in development thinking and practice. There are, nevertheless, some doubts about the factual power of the participatory development process and its impact on poverty reduction. However, generally there is a strong vision that participation is necessary when aiming to achieve equal poverty reduction (Schneider, 1999; Cooke and Kothari, 2001; Papadakis, 2006). In addition, most of the international agencies, governments and civil society actors have come to a conclusion that development cannot be sustainable unless participation of people is identified as a primary issue in the development processes and decision-making (Kumar, 2002).

There are multiple reasons why participation has become such an immense concern in development work. The reasons vary among the actors and organizations, but there are two common reasons behind the rapidly increasing participatory development thinking: 1) participation is seen as a moral imperative to conduct development work, and 2) participation is an effective means to achieve sustainable long-term solutions (Vainio-Mattila, 2000). Overall, it is stated that engagement of civil voices and concerns in the decision-making leads to more effective policies, which better address the concerns of the stakeholders. In addition, integrating local ideas and knowledge in the decision-making process augment the positive impact and ownership of the created policies at the local level (Naidoo, 2008).

Participatory development stands for development that is based on partnerships and negotiation rather than following a top-down project agenda. Empowerment, enhancement of the social and political strength of marginalized people, lies at the heart of participatory development. The process is based on the negotiations and dialogues of various stakeholders and followed by a jointly approved

agenda including local views and respecting indigenous knowledge (Vainio-Mattila, 2000).

Successful participatory governance requires activities and capacities at the different levels of decision-making including the central, regional and local level. Participation promotes accountability and transparency by giving room for the opinions of those who will be affected by the decisions (Kato et al., 2000). Since participatory development especially highlights the participation of civil society, the role of the local level in empowering civil society organizations is crucial (Werner, 2007).

There is no universal path to development. Development occurs differently depending on the place and its culture (Servaes, 1996). Participation also needs to be defined in each unique structural, social and cultural context. As a result, participatory development must be understood as a process, which can differ from one community to another. Achieving successful participatory development thus calls for participatory strategies identified according to the special characters of the society in question. (Chambers, 1986; Schneider and Libercier, 1995; Arnst 1996)

Decentralization of decision-making is a common means for increasing civil society participation and to give more power to the local level. The process refers to transferring responsibilities and activities from national to local government. The flexibility given to the lower governmental levels allows more responsiveness to the needs of local communities (Fonseca and Bolt, 2002). Nonetheless, decentralization does not always lead to increased empowerment and participation (Werner, 2007). Therefore there still remains a great challenge of finding meaningful ways and forms to engage civil society in decision-making.

In order to achieve participatory development, there is a need for more practical and sustainable tools for work and discussion. Achieving effective democracy and decision-making requires both vibrant civil societies as well as effective and accountable governments (Naidoo, 2008). Both

the citizen groups and governments need capacity building in engaging with each other. Too often the participatory processes are optional, ad-hoc or added on late in the process. Transparency, communication and supportive laws and regulations are also missing (Werner, 2007).

Scaling up participatory processes and achieving real participatory development faces many obstacles in general bureaucratic governance (Cowie, 2000; Vainio-Mattila, 2000; Bäcklund et al., 2002; Naidoo, 2008):

- Lack of government commitment to adopt participatory approaches.
- Low skills among project staff to conduct participatory approaches and encourage government staff to adopt them.
- Difficulties in convincing bureaucrats that the local-level studies are representative and it is possible to generalize opinions from the study sites.
- Poor understanding of the fact that empowerment is bound to social, cultural and economic contexts and that there is no universal path to participatory development.
- Local people, particularly the poor, are considered victims, recipients or beneficiaries, not full citizens with ideas and opinions.
- Difficulties in outlining the group of participants that needs to be empowered.
- Unwillingness of project officials to give up control over the project activities and decisions.
- Wrong timing of participation and ad-hoc approaches.
- Mistrust between government and local-level stakeholders.
- Insufficient investment in community capacity building.

There are also various challenges on the civil society side. Primarily these concern the skills that enable them to function as true partners in development work. Participation depends on the access to certain assets and rights. Some groups are often deprived of such privileges because of traditional laws and customs. Unequal access to land, formal financial

systems and services may limit the possibilities of these people to participate. Cultural values, social systems and legal codes are often biased against participation of women, ethnic minorities and people living in informal settlements. Additionally, these groups are often the poorest and most illiterate members of society (Hari, 1995; Schneider and Libercier, 1995; Weekes-Vagliani, 1995).

Communities are also highly socially stratified. They often contain a range of conflicting and competing groups and interests. There may be sharp differences between the opinions of men and women, poor and rich, traditional and modern, large and small landowners or rural landowners and tenants. These differences within a community can breed mutual mistrust between neighbours or between inhabitants and leaders, undermining the results of a participatory process (Cohen, 1996; Maria and Peruzzo, 1996).

The most disadvantaged have been long dominated by the local elite groups and have become accustomed to leaving decision-making to the upper social groups. This has generated a sense of powerlessness and an unwillingness to overstep customary roles in fear of economic and social reprisals and criticism. Additionally, some members of the community do not have the experience of working in groups; they may have a fear of public speaking and low social skills (Cohen, 1996). Furthermore, these people often do not have enough information of the planned project or are not aware of the different dimensions and possibilities (Becker et al., 2002). Due to these deprivations, the opinions tend to be based on first impressions and are negative against participation and the whole project (Bäcklund, et al. 2002).

3.2.1 Civil society, who?

What is meant by civil society, the definition that is nowadays included in numerous arguments considering democracy and socially just development? Civil society has many definitions depending on the organization or actor in question. The term varies from good society and public sphere to common interest (Edwards, 2008). Collins (1998) defines civil society as a social space

between state and family, where people come together forming groups that share the same values, discourses and expectations. This clear and easily understandable definition of civil society is used in this study.

Given that the poor usually have a limited space for interaction, they tend to rely on the support of civil society organizations and social networks. Important groups among the plethora of civil society organizations are the community-based organizations (CBOs). Their roles are also gaining weight in the decentralization processes and particularly in the aims of reaching the poorest.

In practical development work, civil society is understood as civil society organizations (CSOs) such as NGOs, trade unions, foundations, religious groups, community-based organizations and social networks; all the people that are active in the public sphere. In recent years, the role of civil society organizations has expanded and they have increased their credibility also in Cambodia. In general, they have started to enjoy a higher level of public trust. Nowadays, many governments seek and partially use the expertise and local knowledge of civil society in policy-making (Naidoo, 2008). On the other hand, some NGOs and CBOs have at some level bypassed the Commune Councils, making it difficult for the councils to be accountable to national government, international organizations as well as local people (Öjendal and Sedara, 2007).

Especially, the rural NGOS working with environmental issues have had many possibilities in trying to influence decision-making in Cambodia. On the other hand, environmental issues are not often on the top agenda in the development plans, and as a consequence these organizations are given room to have an influence. The situation is different, for instance, with the NGOs that are working for human rights. The space for them to interact and influence is very much narrower hindering their capabilities to bring about development and poverty reduction.

3.2.2 Stages of participation - from passive participation to self-development

Participation is not straightforward and there are many levels of how deeply people participate, what the appropriate level of participation is and how people define participation. Participation also means different things to different people (Kumar, 2002).

There are multiple definitions of the stages of participation. The idea of these definitions is, nonetheless, the same. Participation progresses from passive participation, where empowerment is limited to information gathering, to self-development, where people take initiatives and actions independently.

Maria and Peruzzo (1996) identify five levels of participation. These levels, which do not necessarily exclude one another, move from non-participation via controlled participation to power-participation.

1. Non-participation indicates acts that are passive and commission power to another person, such as voting.
2. Controlled participation means participation where the part taking is limited, e.g. according to the demands of the decision-makers.
3. Power-participation is the strongest form of participation. The process is neither passive nor manipulated. It promotes democratic, authentic and autonomous participation. Power-participation can be further divided into: co-management and self-management.
 - a. Co-management is defined as active participation in decision-making, although participation may be limited and not all decision-making is shared.
 - b. Self-management, by contrast, is the most advanced form of power-participation. In the strictest sense this refers to direct participation in decision-making.

A successful participatory approach requires the attention of all stakeholders and the process needs to be based on profound understanding, flexibility, patience and power sharing (Schneider and Libercier, 1995; Hari, 1995). Genuine participation means that people should be involved in the project throughout the program cycle, from design to evaluation. However, participatory methods are commonly used to give a local perspective as well as unique understanding of a certain community for decision-making (Becker et al., 2002).

Each development project, organization and authority has its own way to conduct participatory approaches. The level of participation often depends on the type, duration, aim, size, and influence of the proposed project. Laitinen (2002) identified five levels for empowering people to become involved in the development project: 1) *information sharing*, 2) *information gathering*, 3) *work responsibility*, 4) *interacting* and 5) *self-developing*.

1. *Information sharing*: The lowest level of empowerment is relevant for projects that are best conducted by using expert knowledge. In this case the target group serves only as a receiver of information. The information can reach the target group in written or verbal form. One example of this kind of participation could, for instance, be a quick evacuation project in the case of a dam collapse.
2. *Information gathering*: The second level of empowerment - information gathering by interviews and questionnaires - is equitable at some stages of participatory projects. This kind of participation can be organized before or after project implementation. During the process the local people are restricted to the role of information sources, whereas planners and experts are making the final decisions.
3. *Work responsibility*: The third level of participation is more powerful. At this level the local people can participate in the work in reality, although participation remains at a very basic level (e.g. construction work).

4. *Interacting*: At the fourth participation level the local people are able to participate in some part of the project together with experts. An example of such a project type could be including both fishermen and experts from the Ministry of Fisheries in the discussion and decision-making on what should be done to increase the fish catch.
5. *Self-developing*: The fifth level of participation is achieved when local people themselves evaluate their own situation and decide what to do to improve it. Sometimes local people search neighbouring organizations to support them in implementation and financing. This implies the active involvement of the local people.

Self-development

Under proper conditions the poor people are capable of helping themselves. They can often successfully take proactive roles in development if they are given the right, space and responsibility to act and take part in decision-making. Genuine participation supports the activity of the local groups. It aims to enhance self-development by giving poor people responsibilities (Baharoglu and Kessides, 2004).

Self-development is the strongest form of participation indicating that the communities or the actors take full responsibility for the development process, from the beginning to and the end. However, in reality this is seldom the case. There are several conditions that need to be met before self-development can succeed. There are obstacles that hamper the process from both the inside and outside.

Achieving self-development depends greatly on the communities, their operations as well as individuals. Communities are not homogenous entities, which can easily facilitate self-development. They differ in terms of culture, religion, gender, income levels and economic interests. The varying needs, priorities and interests within the community hamper the efforts to achieve successful development actions. Hence, the communities need assistance

in building togetherness and communication. The following questions are crucial: How to deal with conflicting interests within a community, how to find a common path, how to delegate the work within the community, and how to identify responsibilities (Fonseca and Bolt, 2002).

The importance of an active and capable community leader, who enjoys support from the community, is also crucial for successful self-development processes. Unfortunately, sometimes the leaders seem to be more concerned about their own wealth or political power instead of what is best for the community (Fonseca and Bolt, 2002; Heinonen, 2004).

The communities are not alone with the development work. They have multiple partners such as NGOs, donors, agencies and government offices to which they need to clarify their needs, plans and cost estimations. The communities thus need assistance and information about communicating with different types of partners and dimensions of the project as well as technical and managerial support. There is also an increasing demand for space for poor people to be heard by the upper levels of decision-making and a need for education and information about the participation process itself (Cornwall, 2002).

3.2.3 Participatory development in Cambodia

Cambodian non-state organizations were destroyed during the Pol Pot regime and replaced by state-sponsored organizations. This course of action induced significant wounds to the grouping of civil society at the grassroots. The impacts were seen for a long time in Cambodia. Over the last few years the state control has, nevertheless, begun to relax and civil society groups have started to emerge (Collins, 1998; Meisburger, 2003).

There have recently been significant changes towards democracy (Kato at al., 2000):

- Multiple civil society groups (e.g. NGOs and religious groups) have been established.
- Interaction between the public sector and civil society has been increasing,

- Information about public policies, rules and regulations has become more available.
- Public officials have to a greater extent started to consult the civil society.
- The government has started to consider civil society groups with a liberal attitude and their activities are regarded as vehicles for development, particularly in the rural areas.

All the same, there is still a great need to boost the democratic changes and build a new open decision-making system in Cambodia (Kato at al., 2000). The grass root survey conducted by the Asia Foundation (2003) identified that personal freedom and electoral administration have improved over the last years. However, violence and corruption in elections continues to be widespread (Meisburger, 2003). The government also lacks procedures for involving civil society in decision-making. Drafting of laws and regulations is typically undertaken by a small group of officials. The exchange of information with other stakeholders, not to mention the affected people, is limited. If consultation takes place, it commonly is ad hoc, opaque, and frequently comes too late to be meaningful (Kato at al., 2000).

The ability and knowledge of citizens to function in a democratic system also remains limited. Most of the Cambodians do not have civic skills required for political participation other than voting. They have not participated in the work of civic associations, nor do they have know-how about starting or running an organization. However, many express their interest in joining an association such as farmer associations, women's associations, and water supply associations, but have not had the know-how or courage to do this (Meisburger, 2003).

In order to tackle low participation, poor governance and decision-making that keep affected people far from the decision-makers and decisions, the government has introduced a decentralization reform. The first elections in Cambodia that established local representative bodies, Commune Councils, were held in 2002.

Commune Councils represent grouped villages for political and administrative purposes. This shifts power from national government bodies to local representatives (Kato et al., 2000). Increasing participation through decentralization, however, is still in its infancy and the real impact of the system is not yet seen.

More about democracy and decentralization in Cambodia is found in Chapter 2.2.

3.3 SOCIALLY JUST DEVELOPMENT

3.3.1 Defining socially just development

Sustainable development - satisfying the needs of mankind without taking away the opportunities from the next generation - is one of the important concepts in world politics today. In a nutshell, the aim of the concept of sustainable development is to provide a frame for the different intentions to create a better standard of living for everyone. Originally the term was aimed at emphasizing environmental deterioration in economic development.

Lately, the concept of sustainability has also migrated to the social field and the term "socially sustainable development" has spread out to development discussion (Papadakis, 2006). The term has also been absorbed into the development work. The present development policies address socially sustainable development by highlighting equitable welfare distribution as well as interdependency between environmental, economic, social and health issues (Niemenmaa, 1999).

Socially sustainable development is understood as development that takes into account the needs of all different groups in society. This means that the decisions are equitable for all social groups, which have been additionally able to participate in decision-making. Hence, achieving socially sustainable development leads to socially just decisions that fulfil the needs of all stakeholders. However, there are still multiple barriers along the way towards achieving socially just development. The decisions may be sustainable as such but do not do justice to all stakeholders and dimensions of development.

3.3.2 Development and social impacts

"Social impacts mean demographical, economic, structural, cultural and psychological changes to the different units of society – individuals, groups, communities, organizations and institutions" (Riikonen, 1994).

Social impacts point out the diverse factors that have an impact on persons, communities or societies, altering their level of welfare and its polarization. The impacts can be: positive - negative, cumulative - non-cumulative, long - short, permanent - non-permanent, or direct - indirect. The type of the impact varies depending on the perspective of an observer. The long-term development actions and the short-term development projects may carry positive as well as negative consequences for the inhabitants, their livelihoods, social relationships, services, culture and the environment they live in (Table 3) (Juslen, 1995; Kojola, 1996).

Table 3 A variety of social impacts (Juslen, 1995)

Impacts on:	Changing:
society	resettlement, conflicts, security
way of life	social relationships, behaviour
living conditions	physical environment
culture	views and historical places etc.
nature	natural resources, recreation
population	age and gender ratio, ethnic groups
institutions	planning processes, policies, local admin.
local economy	employment, income distribution
public and private services	services, security
land use and real estates	values and prices

Juslen (1995) identifies four different groups of impacts that a development project may have on the local people: standard impacts, psychosocial impacts, anticipatory impacts and the impacts of social impact evaluation. These aspects need to be considered carefully in the development work.

1. The standard impacts indicate the easily measured direct impacts caused by the possible project (e.g. noise or pollution).
2. Psychosocial impacts mean the changes in personal capacity and relationships with other people influencing social relationships, communality and spatial atmosphere.
3. Fears and hopes signify how people react to the project and what kinds of doubts and hopes they have about it (e.g. security, health or fear of resettlement).
4. Social impact assessments affect the population due to possible disagreements, consensus, justice, satisfaction or disappointments.

3.3.3 Analyzing social impacts

Development projects always create a change in the customary habits. Social analysis draws out the implications of change from the perspective of the people affected. The social analysis carries numerous advantages for planning sustainable development actions (ODA, 1999). These include:

- improved capacity to identify the possibilities of the project
- increased likelihood of selecting realistic goals
- reduced risk of encountering unwanted consequences
- higher probability to select sustainable development activities

Social Impact Assessment (SIA) can be defined as a process of identifying the future social consequences and changes, intended or not, of

the proposed action. The identified impacts can be related to individuals, organizations or social macro systems (Goyder et al., 1998; Becker, 2001). The assessment identifies different problems and interests beforehand and helps to evaluate the ability of the society to adjust to the changes. The assessment brings the aspects of equity into the project and assists in achieving sustainable, equitable and economic decisions (Juslen, 1995; Kojola, 1996).

SIA is normally one part of the Environmental Impact Assessment (EIA). In the assessment the social, physical and economic environment of the project is studied before launching. If there are assumptions that the project has only social or economic impacts the analyses can be done separately (Juslen, 1995). In reality though, it is very difficult to distinguish between the impacts. Economic impacts frequently have social dimensions, and vice versa. The environmental impacts, conversely, often lead to e.g. decrease in social equality; the rich are in a much better position to cope with the deteriorated environment than the poor (Wilkins, 2003).

In order to understand the factual impact of the development process, the decision-makers should look at the long term changes. Unfortunately, our society favours short-term, cost-effective decisions. The present political planning does not usually extend beyond the election term. As a result, the individual goals take priority over the community goals, leaving long-term development and social justice in the background (Wilkins, 2003). Even though many social impacts are hard or even impossible to measure, they may lead to very significant changes in the long run and deteriorate the aims of sustainability (Juslen, 1995; Rietbergen-McCracken, 1996).

There are also many problems in the assessment itself. There is a common inability to combine technical details and social issues. There is also a challenge to conduct SIA in a way that it fulfils the needs of the decision makers and the SIA professionals. The assessment also suffers from low level of participation and “emotional” analysis

(Alton and Underwood, 2002). All too often SIA is done with low participation or completely without it. Conducting proper participation is difficult, because the participants are not willing to participate or there are limited capacities to empower people. In particular, this is the case in large national projects. If the problem does have a direct effect on people's property or lives, they are not interested in participation; if the changes are to happen in the people's own neighbourhood, their reactions and interests are much stronger.

There are also arguments that SIA slows down the planning process and that the needed extra workforce will purposelessly increase the project costs. In reality, these costs are normally very low, often around one percent of the total costs. In addition, the use of social impact assessment will decrease the total costs of the projects in the long run, since many negative effects can be avoided beforehand (Juslen, 1995; Kojola, 1996). The World Bank studies also show that the time for a participatory project is sometimes even shorter than for a non-participatory one because the information and solutions are more easily identified (Rietbergen-McCracken, 1996).

3.3.4 Socially just water resources management

Water resources are bound with societies, economies and environment. Because of the multidimensional character of water, the resources and their management cannot be separated from the overall development of the certain region. There are also strong linkages between water resources and poverty reduction (Abayawardana and Hussain, 2002):

- Water influences the health of the poor directly through nutrition, drinking, sanitation and household use.
- Water supports the livelihoods of the poor as an input in the agricultural and non-agricultural activities and products.
- Water contributes to the environment in which the poor live and depend on.

In the past, the frame of water resources management has in many respects relied on economic, technical and environmental aspects of water resources. The frame of decision making is, nonetheless, slowly expanding. The majority of management processes currently include consideration of social aspects on some level. As a result, the increasing empowerment of different social groups to participate in decision-making helps in identifying possible impacts that could lead to deepened poverty, social segregation, environmental and social tragedies.

Socially just water resources management is accordingly a way to achieve sustainable development and poverty reduction. Socially just water resources management means that water resources are utilized by taking into account the needs of and impacts on the different groups of society. Thus, the decisions are equitable for all social groups, which have been additionally able to participate in decision-making (ODA, 1999).

In socially sound development of water resources management, participation of people is the key element. The approach highlights the importance of individual, household and community participation and places people at the centre of the development processes (ODA, 1999). The capacities, values and needs of people are widely taken into account. With proper participation the wide field of water resources can be understood and the possible problems mitigated (Singh, 2002).

When considering large rivers such as the Mekong, which cross national, political, economic and cultural borders, it is essential to empower local people and analyse the social impacts of the proposed development. The evaluation of social impacts is important particularly in the poor regions, where people are directly dependent on water resources. People around the Mekong River and its tributaries, for instance, are living off the water; they cultivate floating and wet season rice and fish as their livelihoods. As a consequence, the changes in water and natural resources may have serious impacts on the future of these regions.

Integrated Water Resources Management (IWRM), which is an old approach, is becoming relevant again. It offers a good opportunity for solving difficult water resources management problems and achieving socially just water resources management. The approach promotes the coordination of development and management of water, land and related resources, in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (GWP TAC, 2000). The three goals of the IWRM approach are as follows (Jonch-Clausen and Fugl, 2001):

- Economic efficiency of water use is necessary because of the increasing water scarcity relative to demand.
- Social equity is a necessary recognition: all people have the right to access adequate quantities of water of appropriate quality to sustain their well-being.
- Environmental and ecological sustainability is necessary for ensuring that potential resource use by future generations is not compromised.

4 Exploring the theme: study sites and research methods

In this study the analyses of the above-mentioned broad research theme are composed of multiple layers. The research starts from the national level policies and ends up at the observations of the poor dwellers. To analyze the numerous layers of society, multiple research methods were used (Figure 2). When aiming to analyse the theme from urban and rural perspectives, the study focuses especially on two regions in Cambodia: Phnom Penh and the Tonle Sap Region.

This chapter presents the study regions as well as gives information about the particular study sites in these regions. Moreover, the chapter elaborates the methods used with their advantages and limitations as well as their use in this study to gather information about the above-mentioned research questions. In addition, the chapter identifies the main data and literature sources used in this study.

4.1 STUDY REGIONS AND SITES

There are two regions under special examination in this study: Phnom Penh and the Tonle Sap Region. These localities were chosen for this study for several reasons. Phnom Penh is the capital city

of Cambodia and the major destination for the country's rural migrants. The city is struggling with inequality, informal settlements, rapid development and construction boom as well as exclusive planning. The Tonle Sap Region, by contrast, is one of the poorest regions in the country. It also has high negative migration rates and its population has deep linkages with water and natural resources for their livelihoods.

Through these contradictory regions, the study examines the present development and the opportunities of the urban and rural poor to enhance poverty reduction.

4.1.1 Phnom Penh

Phnom Penh was founded in the fifteenth century after the fall of the Angkor Regime in 1431. It became the capital city of Cambodia in 1865, partly due to its critical location (Shatkin, 1996). This colonial capital is located at the junction of the Mekong and Tonle Sap Rivers and consequently has an outlet to the South China Sea through the Mekong Delta in Vietnam. Due to the good location, Phnom Penh became one of Cambodia's major ports and slowly grew into a vibrant city. This

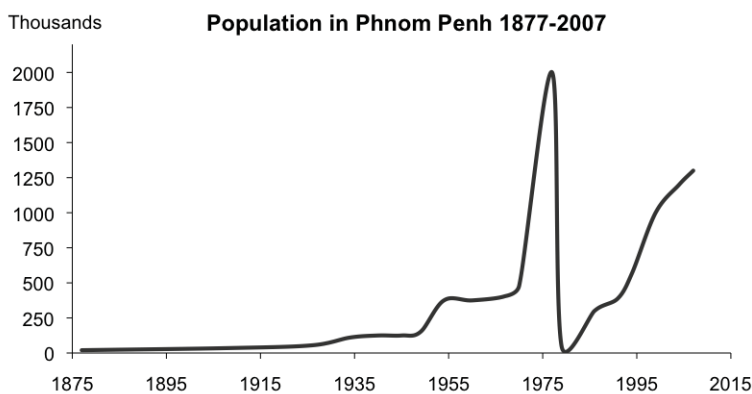
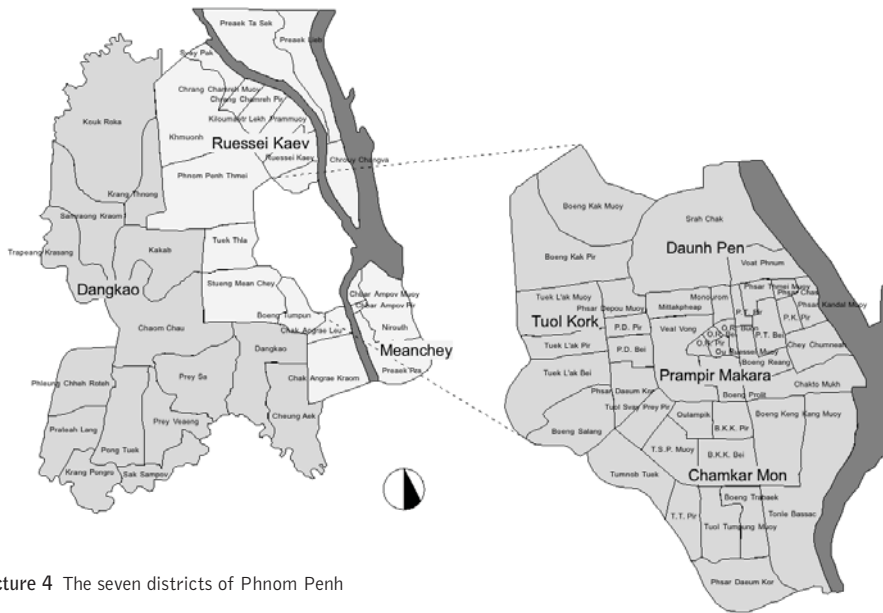


Figure 11 The influence of the Khmer Rouge period is seen in the population (World Bank, 2007a)



Picture 4 The seven districts of Phnom Penh

development had, however, many unexpected ups and downs.

Until the late 1800s, Phnom Penh was a small city occupying only the riversides of Tonle Sap and Bassac Rivers with less than 30,000 inhabitants. The city slowly expanded from the riverbanks and in 1922 it covered half of the present Duonh Pen and Prampir Meakkara districts (Picture 4). Phnom Penh is situated on low-lying land, which has made the growth difficult and increased the need of landfill constructions. Due to the construction projects, the growth of the city continued slowly. By the end of the 1940s, the city covered part of the Douhn Pen, Prampir Meakkara and Chamkar Mon districts with a population of 100,000.

In the 1950s, the city experienced an enormous population growth. From 1948 to 1962, the population increased four-fold and reached 403,500 (Figure 11) (Ministère de la Culture, 1997). During this time, the physical size of the city did not grow as much as the population but instead there was a great increase in housing density. This development was very exceptional and modern compared to the other cities in the world at that time (Igout, 1993; Goulin, 1966). The growth continued rapidly and by 1975, the population of Phnom Penh was two million people and covered

almost the whole current city centre (Blancot, 1994; Ministère de la Culture, 1997).

After this noteworthy population peak in the early 1970s, this vital commercial, cultural and transport centre of the Mekong Valley was remarkably changed. During the Khmer Rouge regime, nearly all the residents were forced to move to rural areas or killed. Most of the city's cultural and educational institutions were closed and previous systems of land ownership and inheritance were destroyed. The impacts of this period were severe and long lasting. In 1979, the city had become a ghost town, with no more than 50,000 residents (Figure 11). In addition, all the universities and cultural institutions were no longer in operation and infrastructure was badly damaged (Igout, 1993; Shatkin, 1996; URC, 2002).

By the time the Khmer Rouge was overthrown, the city was rapidly repopulated. Over the next ten years, the population of Phnom Penh grew to half a million and by 1997 it reached one million (Figure 11) (Ministère de la Culture, 1997). During this inflow, the land and houses remained state property and people settled to the city occupying houses and land on a first come first served basis (Khemro, 2000). The difficult process of rebuilding and resettling Phnom Penh began. Although the city has

since seen many construction projects concerning streets, housing and water supplies, there still are great deficiencies in these infrastructures.

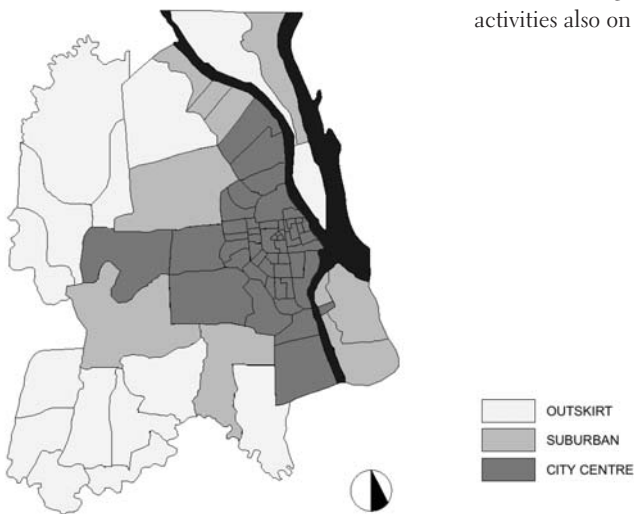
Nowadays, the province of Phnom Penh consists of seven districts and 76 communes, covers an area of 290 km², and is populated by 1.3 million people (Figure 11, Picture 4) (World Bank, 2007a). This number does not, however, include the population living in the city's informal settlements, and thus in reality the population in the province is higher. Phnom Penh is growing two times as fast as the population in the country overall, by an annual growth rate of 4 percent. The population densities in the city are high, around 3.800 persons/km² (NIS, 2005). The densities are highest in the communes of the city centre: Ou Ruessei Muoy, Ou Ruessei Pir and Ou Ruessei Bei in Prampir Meakkara district (Picture 4) (NIS, 2000b).

Phnom Penh is a typical mono-centric city, comprising three zones: the city centre, the suburban and the semi-urban outskirts (Picture 5). In the city centre, the infrastructure is rather good and the education level is fairly high. However, the centre includes poverty pockets, informal settlements, where these statistics are very different, such as, in the Tonle Basak, Tuek L'ak Muoy,

Phsar Depou Muoy, Monourom, Phsar Thmei Pir, Bei and Tumnok Tuek, Oulampik, Boeng Keng Kang Pir and Phsar Daeum Thkov communes (Picture 4) (Heinonen, 2004). The number of poor settlements in these communes is particularly high due to their good location. Poor people want to live near their working places or by the water bodies, since they do not have money for transportation or water and sanitation services.

The suburban area of Phnom Penh lies between the city centre and the outskirts. This zone has better infrastructure and a higher education level compared to the margins of Phnom Penh, but these are remarkably lower than in the city centre. This can be defined as the suburban outskirts of the city. The area has a lower population than the centre but still relatively high population densities, 1.000 to 5.000 persons/km² (Heinonen, 2004).

The semi-urban outskirts of Phnom Penh differ clearly from the two inner zones. Differences are seen especially in housing standards, education levels, infrastructure and income sources (Heinonen, 2004). The city's outskirts have previously been less dependent on business activities, but rely more on agriculture. This has lately changed since the private companies are buying land for industrial purposes and many of the farmers have sold their land. Thus, the farming activities are gradually changing into industrial activities also on the outskirts.



Picture 5 The three zones of Phnom Penh (Heinonen, 2004)

Poverty is deepest on the semi-urban outskirts of Phnom Penh. The poorest communes are Prek Ta Sek and Sak Sampov. Also in Trapeang Krasan, Kouk Roka and Prey Sa the problems are severe. Even if poverty is a major problem in the peripheries of the city, it also remains a massive problem in the city centre, especially in the Tonle Bassac, Tuek L'ak Muoy, Phsar Depou Muoy, Monourom, Phsar Thmei Pir, Bei and Tumnok Tuek, Oulampik, Boeng Keng Kang Pir and Phsar Daeum Thkov (Heinonen, 2004).

During the last ten years, Phnom Penh has experienced a construction boom. The land prices have gone up and conflicts over land ownership have become an everyday occurrence (Durand-Lasserve, 2007). The poor settlements in the city centre, particularly the informal ones, have been hit hardest. Relocations of these settlements out of the way of construction activities have been a common solution for city development. The relocations have been poorly planned without hearing the opinions of the relocated poor. In addition, the receiving communes have been located in the poor outer fringe of the city, where the infrastructure and work opportunities are already deficient, such as Khmuonh and Phnom Penh Thmey in the Ruessei Kaev district and Trapeang Krasang and Prey Sor in the Dangkao district (Kosal and Nay, 1999; URC, 2002; Heinonen, 2004; STT, 2007). Without adequate infrastructure, education and working opportunities, the poor people cannot survive in these relocation sites. Hence, they either have to move back to their destroyed houses, find other sources of income or settle for even lower living standards (Heinonen, 2004).

Over the next few years, the face of Phnom Penh will remarkably change when the multiple development plans will take place in the city. Many of these development projects are run by foreign companies and financiers (Chinese, Korean, Japanese). The Boueng Kak Lake Area development project, for instance, will impact the lives of the citizens. In February 2007, 133 hectares of land around the Boeung Kak Lake were granted as a 99-year economic concession to

be developed by a private company. Since there are several poor communities living around the lake, the construction of this region will put eviction pressures on around 4.225 families (UN, 2007; Amnesty, 2009). Even though the master plan of the area aims at integrating existing slum communities into the project planning by upgrading or planned relocations and without affecting their livelihoods (Bunnarith, 2004), the massive construction project will most probably lead to significant relocations and evictions of the local communities, such as the 101 community (For more information see Chapter 8).

Study communities

In order to get information from the grass root level of Phnom Penh, this study has chosen five poor settlements for a special examination: Dey Krahom, 101 Community, Prek Taroth, Kob Kong and Trapeang Chork. These communities are chosen to represent the diverse pool of poor settlements in Phnom Penh in terms of size, location, land tenure, infrastructure, and livelihood structure (Table 4). To highlight the differences in terms of participation and poverty, the communities are chosen to represent the urban city centre as well as the peri-urban outskirts of Phnom Penh (Picture 8). These communities were also proposed for examination by the Urban Resource Centre, a former local NGO, which has been working with poor settlements.

Prek Taroth (Picture 6/1)

- The community is located in the Prek Tasek commune in the Russei Kaev district.
- It is located on the bank of the Tonle Sap River around 15 kilometres from the city centre. Due to its location on the “other” side of the river, the community does not have proper infrastructure.
- The 1074 dwellers of the community use surface water from the river for household purposes and drinking. In addition, they harvest rainwater.

101 Community (Picture 6/2)

- The community is located on the north side of the city centre in the Boeung Kak II commune in the Toul Kork district.
- The 226 dwellers of the community live next to the railroad. The land is public and a very crucial development area for the city. The development of the Boeung Kak Lake region is underway.
- The dwellers of 101 Community are afraid that in the coming years they will be relocated, which has strongly influenced the development plans of the community.
- The community has piped water and household latrines.

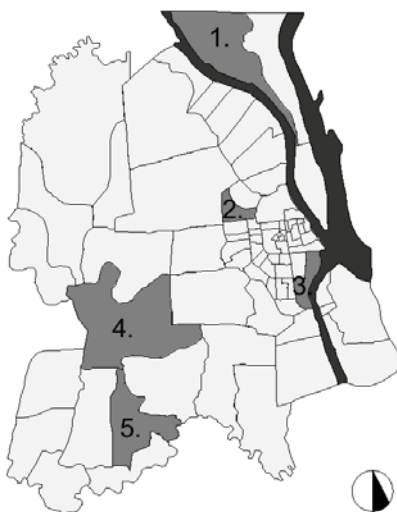
Dey Krahorm (Picture 6/3)

- The community is situated in the Tonle Bassac commune in the Chamkarmon district.
- It is very centrally located, on the up-market bank of the Tonle Sap River. As a result of the location, the community has been threatened with evictions.

- In 2003, the land was granted to the community as a Social Land Concession (COHRE, 2009).
- In 2006, 750 families were evicted from the community. The residing 170 families were for a long time waiting for the negotiations with a private company concerning compensations and upgrading possibilities. These families lived under a great pressure.
- The community was violently evicted in January 2009.
- The community used to have piped water and household latrines, but the relocated and evicted families do not have these facilities.

Kob Kong (Picture 6/4)

- The community is located in the Cham Chao commune in the Dankor district, 15 kilometres from the city centre.
- Farmers of the community have sold agricultural land for industrial purposes, and now there is a garment factory situated next to the village.
- The population of the community has increased because people have moved to the village to work in the factory. The population has increased from 445 in 2005 to 700 in 2008.



LOCATIONS OF THE STUDY COMMUNITIES

1. Prek Taroth
2. 101
3. Dei Krahorm
4. Kob Kong
5. Trapeang Chork

Picture 6 The locations of the five study communities in Phnom Penh

- For several years, Kob Kong has relied on groundwater. However, in the last three years the water tables have dropped and the eleven wells have dried out.

Trapeang Chork (Picture 6/5)

- The community is located in the Prey Veng commune in the Dankor district, 24 kilometres from the city centre.
- The 632 dwellers of the community rely on pond water and private vendors. There are four ponds in the community, two of which are used for drinking water. In addition, the dwellers harvest rainwater.

4.1.2 Tonle Sap Region

The Tonle Sap Region is formed of five provinces: Siem Reap, Kampong Thom, Kampong Chhnang, Pursat and Battambang. These provinces have a population of around 3.4 million people and are located around the Tonle Sap Lake (The Great Lake), the largest lake in South-East Asia. The average population growth rate of the region is high, almost twice the average of the country (NIS, 2005c-f).

The region is one of the poorest in Cambodia; the proportion of the population falling under the official poverty line is highest in the country. Additionally, in around half of the villages of the region 40 to 60 percent of households live below

the poverty line, with a peak of 80 percent in the rural areas of Siem Reap and Kampong Chhnang provinces (ADB, 2003). Most of the families in the Tonle Sap Region are indebted. On account of the lack of reliable village banks or micro-finance institutions, the dwellers continue to borrow from friends, relatives or local moneylenders. Due to deep poverty, lack of buffer income and flexible loan systems, many households in the region experience shocks and crises, illness being the most common, followed by crop damage and death of livestock (Fitzgerald and Sovannarith, 2007).

The region is very much characterized by the presence of the Tonle Sap Lake and its seasonal changes. The natural flooding mechanism of the lake provides a unique and important balance to the Mekong River during monsoon rains. It also supports the natural systems of the Tonle Sap Region (FAO, 2002). The livelihoods in the region are largely characterized by the lake's water resources as well as by the natural resources that the basin provides. Most of the families living in the region are cultivating land, fishing or hunting for their livelihood (NIS, 2005c-f). Hence the inhabitants are also heavily dependent on water resources, which are used for fishing, rice cultivation, cattle breeding, irrigation and household purposes. Because water is included in every livelihood sector, its quality and quantity are very important for the income and health of the population (Heinonen, 2006).

Table 4 The location, size and livelihood structure of the study communities in Phnom Penh

Community	Location	Population	Pop. change (%) 2005-2008	Occupations	Earnings
101	City centre	226	2	Trader, moto-taxi driver, pay labourer, waiter	250 000 /riels/fam/ month
Dei Kro Hom	City centre	170 (families)	-441	Trader, moto-taxi driver, pay labourer, waiter	300 000 /riels/fam/ month
Prek Taroth	Suburb	1074	5	Fisherman, trader, pay labourer	200 000 /riels/fam/ month
Kob Kong	Suburb	700	36	Farmer (wet-season rice), cattleman, pay labourer, trader	200 000 /riels/fam/ month
Trapeang Chork	Suburb	632	4	Farmer (wet-season), trader, pay labourer, moto-taxi driver	200 000 /riels/fam/ month

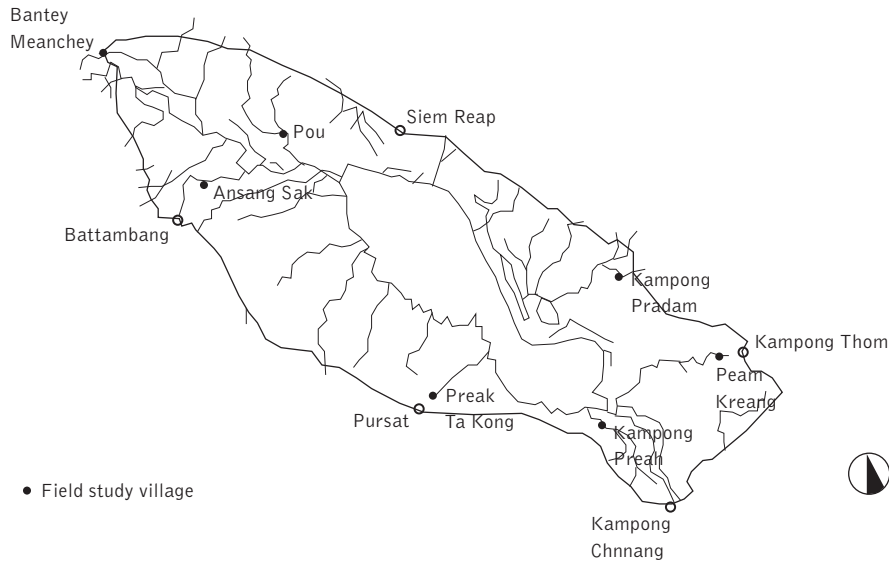
The main livelihood in the region is rice cultivation: rain fed rice, floating rice and recession rice. Since the farmers generally do not use fertilizers and pesticides, and have no irrigation or other water controlling systems, they are deeply dependent on rainfall and floods. The recent years have been very exceptional in Cambodia with heavy droughts, floods and changes in the timing of the seasons. Fish offers livelihood opportunities for many villagers in the region and provides the main source of protein throughout the year. The fishing activities of the local fishermen are, however, hindered by commercial fishing and decreasing fish catches per family. Commercial fishing is extensive in the Tonle Sap Lake, which is mostly divided into fishing lots that are auctioned to private companies. The villagers are not allowed to fish in these lots, lowering the potential fish catches of the local people (Tar, 2003; Varis and Keskinen, 2006). Inhabitants of the region are also dependent on access to natural capita, which is used for subsistence income. Forests, for instance, offer food and selling products, shelter for birds and breeding places for fish, give protection against storms, fortify the soil and reduce peak floods (World Bank, 2006a).

The inhabitants of the Tonle Sap Region are mostly living in rural areas. Over 80 percent of the population is employed by the primary sector (e.g. in agriculture, forestry, hunting or fishing). This sector has experienced an increase over the last years, while the secondary sector (e.g. construction, manufacturing or mining) and the tertiary sector (e.g. service, business or transport) have shrunk in all provinces, except in Siem Reap and Kampong Thom. The urban areas of the region, however, seem to be growing in all of the provinces with a fairly rapid rate. The average net-rural-urban migration in the region's provinces has been around 8 percent (NIS, 2005c-f). Urbanization has been especially high in the Siem Reap province. Overall, due to increasing tourism and foreign investments, the province has seen an enormous growth and construction boom over the last years. The construction sites and service works in the city have also attracted a number of migrants.

Moreover, the provincial capitals of Siem Reap and Battambang (Svay Pao) are the biggest and the most critical cities in the region.

The Tonle Sap Lake is known and appreciated for its natural richness, and thus it is seen as a strategic development region also for the country's overall development. Water resources management is high on the agenda of the Cambodian government but there is, nonetheless, a very weak capacity and lack of coordination between the key ministries related to water resources development (Keskinen et al., 2008). To date, the development plans and activities for the Tonle Sap Region have been fragmented and project-based, suffering from limited coordination and competition between ministries and organizations. To enhance coordination management, conservation and development of the region, the government of Cambodia set up the Tonle Sap Basin Authority (TSBA) in 2007. The authority aims to coordinate ongoing and planned activities/projects of ministries-agencies, local authorities, national and international organizations, non-governmental organizations and civil society working in the Tonle Sap Basin (RGC, 2007b). Even though this authority is a step forward in terms of decentralization and public engagement, it is prepared without broad public engagement, and as a political process proceeds slowly (Middleton and Tola, 2008).

According to CDRI studies (2007), the rural dwellers seem to increasingly expect their leaders to deliver improved living standards and poverty reduction and thus voice disappointment about the present development and the slowness of poverty reduction (Fitzgerald and Sovannarith, 2007). However, the commune councils seem to be working effectively in areas such as rural infrastructure involving the construction of roads and bridges. In some villages, the poor have also benefited from collaboration between local governance institutions and NGOs in areas such as healthcare, extension services and small-scale credit (Ballard, 2007). Currently, there are at least 140 national and international NGOs active in the Tonle Sap Region (CNMC, 2006).



Picture 7 The location of the six study villages in the Tonle Sap Region

Study villages

To analyze rural poverty and the reasons behind migration, this study has chosen six villages located in the Tonle Sap Region for a special examination: Kampong Pradam, Peam Kreang, Pou, Ansang Sak, Kampong Preah and Prek Ta Kong. These villages are located along the shores of the Tonle Sap Lake in the provinces of Siem Reap, Kampong Thom, Kampong Chhnang, Pursat and Battambang (Picture 7). In the first three villages - Pou, Kampong Pradam and Peam Kreang - a particular migration discussion and ranking was conducted, and thus these villages are the key information sources used in this study (Haapala et al., 2003a-c; Keskinen et al., 2003d). In addition, the participatory studies conducted in the three other villages - Ansang Sak, Kampong Preah and Prek Ta Kong - provide supplementary information for the analyses about the interconnections of livelihoods and natural resources (Keskinen et al., 2003a-c).

Pou

- The village is located in the Pou Treay commune in the Pouk district of the Siem Reap province.

- Pou is a non-migrational floating village, which means that the village stays in approximately the same place during both the dry and wet season. In the dry season, houses are situated on the Sankai River, whereas in the wet season, they move close to the flooded forest following the changing water level.
- The 470 dwellers of the village are primarily dependent on fishing and fishing-related activities. (Haapala, 2003c)

Kampong Pradam

- The village is located in the Msar Kran commune in the Stoung district of the Kampong Thom province.
- Kampong Pradam is situated on the banks of the Stoung River (Stueng Stoung). Due to the annual floods, all the houses are built on stilts.
- The population in the village is 990 people and their livelihoods depend primarily on agriculture; wet season (recession) rice and floating rice.

- Full-time fishing offers livelihood for 26 families in the village. (Keskinen, 2003d).

Peam Kreang

- The village is located in the Kdey Dong commune in the Stung San district of the Kampong Thom province.
- The village is situated on the banks of the Stung Sean River. Due to the annual floods, all the houses are built on stilts.
- The livelihood of the 1.452 villagers is primarily dependent on agriculture, especially on floating rice cultivation. (Haapala, 2003b)

4.2 RESEARCH METHODS USED

In order to analyse the multidisciplinary topic of this study, the research work has exploited multiple research methods (Figure 2). Especially the participatory rural appraisals, focus-group discussions and thematic interviews have offered key information for this study complementing the sometimes deficient data sources in Cambodia as well as highlighting the local observations.

The author has gathered information related to water resources, their interconnections with livelihoods, migration, poverty, and the elements creating rural push by using participatory rural appraisals conducted in the six villages around the Tonle Sap Lake in 2002. The PRA studies and focus group discussions that took place in the poor settlements and among migrants in 2002, 2005 and 2008 in Phnom Penh, on the other hand, provided data about the living standards, problems and observations of poor urban dwellers as well as migrants living in the capital city. The thematic interviews of experts as well as the data comparisons, analysis and literature studies along these six years of research (2002-2008) supported the information gathered from participatory studies and gave macro-level information about the research topic.

4.2.1 Participatory rural appraisal

Participatory Rural Appraisal (PRA), is perhaps the most widely known and recognized participatory approach in the world. Since the 1980s, the method has been used in a variety of contexts for different purposes. Even though the name of the method emphasizes rural areas, the method is nowadays also used in urban areas. While the method has spread out and is used by different development actors and institutes, it has taken diverse forms and meanings. PRA is a method developed to overcome difficulties with existing survey approaches. However, there is also a deeper meaning behind this method. It addresses participation, and highlights the experiences, views and proposals of local people in identifying community problems and planning solutions (Datta, 2003). The method aims to allow people to enhance their own development by enabling them to share, improve and analyze their knowledge within the community as well as with the experts (ODA, 1995; Chambers, 1997; Selener 1999).

Sometimes the method is used by development workers as it is intended; to engage poor people in outlining plans, projects and policies (Cornwall and Pratt, 2003). In reality, PRA is often only used for data gathering to fulfil the participatory requirements of the development organizations (Datta, 2003). Also in this study, the PRA method is used as a methodology purely for research purposes; to help find information and local opinions of the research questions identified beforehand.

PRA includes a variety of visual and oral techniques. The method integrates different themes such as history, geography, social aspects, economy and health by means of historical profiles, seasonal calendars, impact diagrams and preference rankings. By using these techniques PRA changes the common way of participation; it gives local people an opportunity to run the show and act as experts. In this method the outsiders act as students by merely facilitating the session. The information gathered from PRA is qualitatively different from that provided by conventional, non-participatory surveys. The method puts local information in a more understandable form to an outsider and helps

communities to identify their problems, needs and solutions. The local population does not adopt the results of non-participatory surveys, whereas the methods used by PRA ensure that the information is visible and public, owned and verified by the participants (Schneider and Libercier, 1995; Chambers, 1997). In addition, PRA aims to empower people, who normally have only a low authority in the communities (e.g. women, minorities and the poor) (ODA, 1995; Chambers, 1997; Selener, 1999; Laitinen, 2002).

PRA studies in the Tonle Sap Region

During the spring and autumn 2002, the Tonle Sap Modeling Project of WUP-FIN (a complementary project to the Mekong River Commission Water Utilization Program) conducted six socio-economic field studies in the villages situated along the Tonle Sap Lake - Pou, Kampong Pradam, Peam Kreang, Ansang Sak, Kampong Preah and Prek Ta Kong (Keskinen, Haapala et al. 2003, WUP-FIN's socio-economic studies 1-6, 2002). These studies utilized PRA techniques to analyze socio-economic factors of the villages: occupations and their seasonal variations, use of natural resources and access to them as well as environmental changes.

The previously mentioned villages were chosen to represent different types of villages around the lake by livelihood structure, size, and location (Picture 7). Each of the two to three days' participatory studies had an age and gender balanced group of 16-28 participants chosen by the village chiefs:

- Pou (duration: 3 days, participants: 16 (6 females, 10 males), 25-82 years)
- Kampong Pradam (duration: 3 days, participants: 18 (9 females, 9 males), 26-69 years)
- Peam Kreang (duration: 3 days, participants: 16 (7 females, 9 males), 30-66 years)
- Ansang Sak (duration: 3 days, participants: 17 (10 females, 7 males))
- Kampong Preah (duration: 2,5 days, participants: 28 (14 females, 12 males))
- Prek Ta Kong (duration: 3 days, participants: 18 (5 females, 13 males))

The conducted PRA studies conducted were formed of a set of the following techniques (Haapala et al., 2003a-c; Keskinen et al., 2003a-d):

- Key informant interview (thematic interview)
- Group discussion (focus-group discussion)
- Participatory mapping
- Transect walk and observation
- Seasonal calendar and occupational preference ranking
- Time ranking
- Focus group discussion and rankings on migration/urbanization
- Final discussion and analysis of the study

The idea behind the above-mentioned technique selection was to first gather overall information about the socio-economic situation in the villages through a key informant interview. The following group discussion then focused more deeply on the issues of livelihood, occupations, natural resources, environmental problems and floods. With the help of this data as well as the information derived from the participatory mapping and the transect walk, the study then focused especially on issues of seasonality and recent changes in environment, natural resources, floods and livelihood. This was done by using two ranking exercises: seasonal calendar and time ranking. In the final discussion all derived information was put together and analyzed with villagers. In this meeting, the comments of villagers about the field study and its results were heard. The different visualization exercises (mapping and rankings) served as tools for further discussion about the issues of seasonality, environmental changes, migration and causes behind them (Haapala et al., 2003b-c; Keskinen et al., 2003a-d).

The three latter field studies in Pou, Kampong Pradam, Peam Kreang, which were facilitated by the author, focused, apart from the previously mentioned topics, on migration, urbanization and floods (Haapala et al., 2003b-c; Keskinen et al., 2003d). The issue of migration and urbanization was scrutinized in a separate exercise including

focus group discussion and rankings (Picture 8). This part of the study aimed in particular to find out the reasons behind migration, future migration as well as the role of urban pull. The structure of the focus-group discussion was based on four objectives: 1) how many migrants moved and why, 2) what are the migrants doing in their new destination, 3) how did their standard of living change, and 4) how these migrants decided their destination. The discussion focused mainly on recent migration and thus the discussion and the rankings especially focused on the migration of young people; their opportunities in the city as well as their opinions about the urban pull. In addition to the discussions two rankings were conducted; one focusing on previous and the other on future migration.

The field study team consisted of two WUP-FIN socio-economic trainees/experts and two provincial level team members. Two members at a time acted as facilitators during the exercises, while two members were taking notes on discussions and progress of the exercise. The practice of two note-takers allowed crosschecking of gathered information and ensured that all the important information emerging during the exercise was written down. In order to avoid careless working routines and errors, the tasks were rotated among

the team members. Methods and exercises of the field study were planned by the WUP-FIN socio-economists (including the author) together with socio-economic trainees (Haapala et al., 2003b-c; Keskinen et al., 2003a-d).

Limitations of these studies

Even though the studies present information similar to other socio-economic studies conducted in the region, the results may be somewhat oversimplified or even biased. Using PRA mainly for research purpose could have influenced the results. The whole concept of field study can be criticized for being too extractive and not participatory enough. Due to the nature of the whole survey, the results of the study were used to get a better understanding of the entire study area, not to develop any specific village. The original products of different exercises (maps, rankings etc.) were left to the village, but the participation in both earlier (planning) and later (analysis, report writing and implementation) phases of the field studies was practically non-existent (Haapala et al., 2003b-c; Keskinen et al., 2003a-d). Although the villagers did not obtain any direct benefit from the exercise, it was interesting to see that they, nevertheless, were willing to participate in the studies and share their thoughts. In other words, the villagers were eager to be active in the development work, if the opportunity was given for them.



Picture 8 PRA studies of Kampong Pradam in autumn 2002

There is also a possibility that there is some bias in the field study or report writing:

- Since there were six field studies conducted by the WUP-FIN team, members of this field study team gained experience of the different methods and tools used in the study. This is naturally positive; experience brings confidence and improvements. On the other hand, there is always a threat that applying the same methods repeatedly leads to some routines and ruts (Haapala et al., 2003b-c; Keskinen et al., 2003a-d).
- The group of villagers was selected and gathered by the village chief according to the wishes of and advice from the field study team (e.g. gender, wealth, age and occupation). As a result, the composition of the group was heterogeneous. Due to time constraints, important groups of gender and age were not dealt with separately. The heterogeneity of the group and the lack of separate sessions for men and women, for example, might have left some interesting points unsaid.
- Since the village chief called the participants together there is always a possibility that the chief has preferred some people and thus the group is not a representative sample of the whole village.
- Time reserved for the study (less than three to four full days in the village) was minimal and the schedule of the exercises was tight. Even though there did not appear to be any hurrying, the time reserved for relaxed and more informal discussions was limited (Haapala et al., 2003b-c; Keskinen et al., 2003a-d).
- The “governmental” composition of the study team (four members out of six were government officials) may have dampened the discussions about some aspects such as illegal use of natural resources (Haapala et al., 2003b-c; Keskinen et al., 2003a-d). The same hindrances can come up due to the presence

of ‘barangs’ (foreigners). The presence of the local officers may have destroyed some of the freedom in the discussions but since these officers were already known by the villagers through the SEILA program, the possible impacts stayed minor. In addition, the co-operation with the team, author and the local officers was also fruitful and no pressures were felt.

- Since the methods and indicators for the study were originally planned by the WUP-FIN socio-economist in English and translated later into Khmer, there is always a possibility for misunderstandings and mistranslations. And vice versa: since the field study was conducted and the original report written in Khmer and then translated into English, there is always a possibility for small differences in reporting. However, since the whole team was present during every exercise, and two of the team members know both Khmer and English, bigger differences are not likely (Haapala et al., 2003b-c; Keskinen et al., 2003a-d).

PRA studies and focus group discussions in Phnom Penh

Two sets of studies were conducted in the five communities of Phnom Penh - Dey Krahom, 101 Community, Prek Taroth, Kob Kong and Trapeang Chork - to analyze the living standards, problems and observations of the poor dwellers. In order to recognize the recent changes in the poor settlements and the direction of development, the studies were conducted within a three-year time period; one-day participatory rural appraisal covering totally hundred dwellers took place in January 2005, one-day focus-group discussions of twenty dwellers in January 2008, and in addition half-day focus group discussions with four key people were carried out in Dey Krahom and Kob Kong in March 2008 (see Chapter 4.2.2 for more information about the method). The three-year gap between the studies evidences, for example, how the water services and land tenure issues in the city have progressed and what the role of the poor communities has been in this development.



Picture 9 Participatory studies in Kob Kong in 2005

The PRA studies conducted in 2005 covered totally 100 dwellers. The studies included twenty community dwellers in each of the five study community (Dey Krahorn, 101 Community, Prek Taroth, Kob Kong and Trapeang Chork) (Picture 9). The dialogue focused on the major obstacles that the dwellers are facing in terms of poverty, income, health, education, land tenure and infrastructure. A particular focus was on water supplies, water use, sanitation, and drinking water quality.

The one day study used the following set of techniques:

- Key informant interview (thematic interview)
- Transect walk and observation
- Participatory mapping
- Focus group discussion
- Final discussion and analysis of the study

In addition, the studies conducted in 2005 included water quality testing. The water quality of the main drinking water supplies was tested with the field team of the Resource Development International Cambodia. The samples were tested in the laboratory of the organization in Kandal, Cambodia.

The above-mentioned set of techniques was chosen to obtain general information about the socio-economic situation and present changes related to population, land tenure and infrastructure, in particular water supplies, as well as about the observations of the dwellers regarding the city development. The key informant interview gave general information of the community. The transect walk and observation as well as the mapping, on the other hand, gave more exact information about infrastructure, water sources, sanitation, drainage channels and the spots of possible floods. The focus group discussion specifically focused on the issues of water use, water price, sanitation and health.

The second survey took place in January 2008. The survey was a one-day focus group discussion with totally twenty community dwellers. The studies included four community dwellers in each of the five study community (Dey Krahorn, 101 Community, Prek Taroth, Kob Kong and Trapeang Chork). The study started with a key informant interview (thematic discussion with the village chief) that scrutinized the status and recent changes related to population, land tenure and infrastructure, e.g. water supplies and sanitation. Later, the focus group discussion assessed the level at which the poor dwellers are involved in city development,

how they are organized, and what their level of knowledge is of the different initiatives that the city has for upgrading poor settlements as well as of the possibilities of poor dwellers to develop their own communities.

In March 2008, two additional focus group discussions were conducted in the Kob Kong and Dey Krahom communities. These discussions each had four key community participants, including the Community Chief and Chief of the Community Development Committee (CDC). The discussions focused on the recent changes in land tenure, eviction pressures, water supplies, sanitation and drainage, development plans as well as the community organizations and their role in enhancing the development of the community.

Limitations of these methods

The PRA studies conducted in Phnom Penh have limitations similar to those conducted in the Tonle Sap Region. The group of participants was convened by the village chief according to the wishes of and advice from of the field study team (e.g. gender, wealth, age and occupations). Therefore, there is a possibility that the chief has preferred some people over other and this may have influenced the results. The heterogeneity of the group may have hindered the freedom of the discussion and thus left some relevant points out. Also the presence of a “barang”, a foreigner, might have affected the discussion.

The field study team consisted of one socio-economic expert (author) and one to two local team members. The members of the field study team acted as main facilitators during the exercises and one member took notes on discussions and progress of the exercise. Methods and exercises of the field study were planned by the author together with the team members. In addition, there were some people from local NGOs, who have been working with the communities helping out with some of the practicalities. The above-mentioned facts and the translation of the studies from English into Khmer and vice versa, may have led to some misunderstandings similar to those presented in the analysis of the participatory studies of the Tonle Sap Region.

Overall, conducting participatory studies in an urban setting is more demanding because of the fragility of community feeling. In an urban community people come from various backgrounds with different interests and values. Compared to the rural communities, in urban areas community feeling is often created solely by the fact that people are living within the same neighbourhood but do not necessarily share the same background and history. In rural areas homogeneity may be greater as a result of kinship, language and culture (Gwaba, 2003). Using PRA in urban neighbourhoods thus calls for adaptation of the old methods. The learning process is also different, since urban people have less time, they are more literate, and have fewer spaces to gather spontaneously and move socially and geographically (Neeffes, 2003). Even though the studies made an effort to include the opinions of the wider group, it was difficult to involve both the poorest and the richest of the community in the study.

4.2.2 Focus group discussion

Focus group discussion is an ideal way of exploring the experiences, opinions, wishes and concerns of people. This method gives the participants the freedom to use their own definitions, vocabulary and concepts and thus makes participation easy. The method does not give quantitative information about how many participants hold a certain opinion but it helps to raise opinions and ideas and shows how people express themselves (Kitzinger and Barbour, 2001).

There are several different procedures than can be used to conduct a focus group discussion. Overall the term refers to a discussion on a specific topic in a group of people (Flick, 2006). The group size ranges from three to four people to over fifty participants (Kitzinger and Barbour, 2001). The interviewer acts as a facilitator of the discussion preventing single participants to dominate the discussion and giving time for all the participants to join the discussion. The interviewer does not, however, take part in the discussion, but tries to act as a flexible, objective and empathic listener (Fontana and Frey, 2000).

Focus group discussion is an efficient method for qualitative data collection, since it provides some quality control over the incorrect, not socially shared or extreme opinions of the group members. On the other hand, including a whole group of people in the discussions limits the number of topics that can be discussed, as it takes more time. Normally the discussions take around two to three hours and thus cannot cover many topics. The group dynamic during the discussion changes according to the heterogeneity of the group. The more different the backgrounds of the people are the more different perspectives and opinions are presented. This is fertile for the data gathering but requires good facilitation skills (Flick, 2006).

Focus group discussion with migrants

The focus group discussion with six young migrants living in Phnom Penh was conducted in November, 2002. To provide a setting where all the participants could speak freely, the discussion took place in a local restaurant in the city centre of Phnom Penh. The focus group discussion was facilitated by the author and there was one local team member taking up notes.

The discussion aimed at finding out the reasons for migration and analyzing the living conditions of young migrants in Phnom Penh. The discussion questions were as follows:

- Where did the migrants move from?
- What were the main reasons for migration?
- What were the migrants currently doing in Phnom Penh?
- How had the migration changed their standard of living?
- Why did they choose to migrate to Phnom Penh?

The discussion focused on the migration of young people, their opportunities in the city and their opinions about the attractiveness, urban pull, of Phnom Penh. Due to this reason the group was comprised of young people. The group consisted of three females aged 20, 20 and 22; and three males aged 18, 20 and 25. All the participants were

long-term migrants and had lived in Phnom Penh at least for two years; three of the migrants had migrated to Phnom Penh in 2000, one in 1999 and two in 1997. Most of the migrants were under 20 years when they migrated. The participants have migrated from the provinces around the capital city; three had moved from Takeo, two from Kampong Cham and one from Kampot. These provinces have negative migration rates and are located around Phnom Penh (except for Kampot).

More information about the focus group discussion can be found in Chapter 7.2.

4.2.3 Thematic interview

The thematic interview is a form of discussion where the interviewer has set topics and rules. The method, nevertheless, is very interactive and both the interviewer and the interviewees influence each other as well as the plot of the interview. In a thematic interview the themes of the discussion have been decided beforehand. However, it is more open than a structured interview, which follows strict questions and forms. In a thematic interview the interviewer goes through the set topics but the order and scope can vary greatly. Normally the interviewer initiates the discussion having only the topics of the discussion, not the specific questions. This gives interviewees more room to bring up different aspects of the themes (Eskola and Suoranta, 1998).

In this study, thematic interviews are used to gather community information from the village chiefs and supplementary information related to a variety of research topics from the experts. The list of the experts interviewed during this research work is presented at the end of this study (see Individual interviews).

4.2.4 Literature studies and data analyses

In Cambodia there is an enormous lack of statistical information. This is also a reason why the author has collected new information through the above mentioned methods. Thus, this study is based on participatory studies, literature reviews, expert interviews and data comparisons. These different methods complement each other

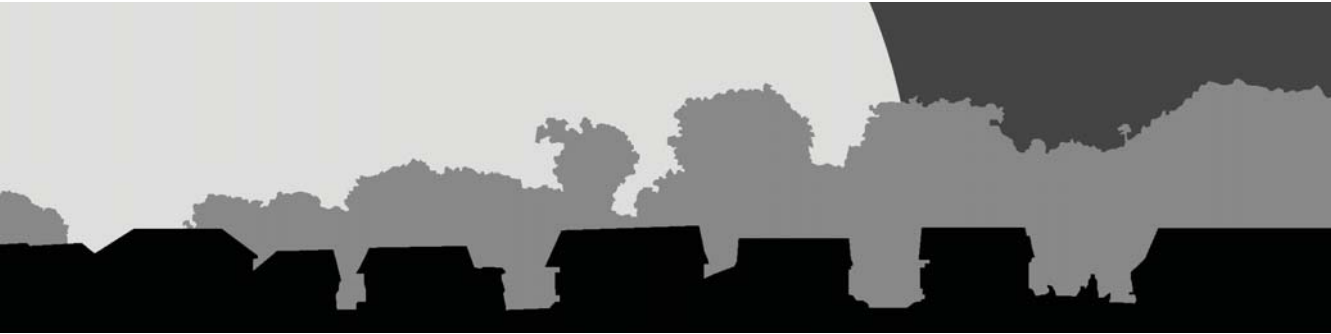
forming an extensive knowledge base. Especially the participatory studies and expert interviews are important data sources that support other data sources of Cambodia, which, by themselves, are often insufficient.

Due to the troubled history of Cambodia, there is a great lack of demographic surveys and environmental data and analyses. In 1998, the Cambodian Population Census was published for the first time in 36 years. This extensive survey and the various analyses of the National Institute of Statistics based on this census are used as key data sources in this study. The Cambodian Inter-Censal Population Survey from 2004, and the special analysis from that survey, also provided important data for the analyses presented in this study. These more recent surveys do not, however, include detailed information, for instance, about migration. The next population census will be conducted in 2008 with data analysis available in 2009 and 2010. Therefore, the best available data, for example, about migration in Cambodia, are currently provided by the Census 1998.

Moreover, other publications of the National Institute of Statistics, the United Nations' organizations and the World Bank are utilized in this study. Other relevant data sources were used to update and support the above-mentioned data sources and the participatory studies, and to give more detailed information about the poor settlements (which are often excluded from the general population surveys). These were gathered from the publications of the various organizations working in Cambodia e.g. Cambodia's Leading Independent Development Policy Research Institute, Urban Resource Centre, Urban Sector Group, Sahmakum Teang Thaut and Urban Poor Development Fund. The information related to water resources and management, on the other hand, was collected from the various reports of the Mekong River Commission, Asian Development Bank, Food and Agriculture Organization and relevant NGOs.

The author has included all the obtainable and relevant information to the thesis. Since there are

many foreign organizations working in the Tonle Sap Lake Region and they work rather transparently, the author has been able to include statistics from the region. The situation is not similar in Phnom Penh and especially the statistics and opinions related to the poor settlements are very difficult to obtain due to the sensitivity of the development plans and evictions.



PART II: From village to city

5 Reasons behind migration in the Tonle Sap Region

There are different types of environmental migration. Environmental migrants are people who are permanently displaced, because their original habitat can no longer provide for their basic needs. The voluntary migrants from deteriorating environments, on the other hand, can influence where and how they migrate. Frequently, these threatened households dispatch individual members to take advantage of outlying opportunities without requiring relocation of the entire household (Flintan, 2001; Bates, 2002; El-Hinnawi, 1985). The migration in the Tonle Sap Region can mostly be defined as voluntary environmental migration. In a traditional society like Cambodia, the decision to migrate is often collective. The decision to migrate and where to migrate often comes from the family, not from the migrants themselves. It is also common that several family members migrate to the same destination and migrants support their rural families with remittances (CDRI, 2007A).

In Cambodia, the majority of migrants are poor rural dwellers, which end up looking for better income opportunities either in urban areas or in the neighbouring countries (Heinonen, 2004; Asian Migrant Centre, 2005). The rural push indicates the pressure that makes these migrants move from rural areas. According to Heinonen (2006), the rural push from the Tonle Sap Region encompasses multiple factors such as population growth, problems in the agricultural sector and fishing, poverty, dwindling natural resources as well as changing water quality and quantity. The lowered living standards due to the changes in natural resources are nevertheless often a root cause for migration (Flintan, 2001; Ratner, 2003; Fox, 2004; Heinonen, 2004). The interconnections between environmental change and migration are rarely direct. Instead, the effects of change normally filter through the local economy (Bates, 2002). The reasons for migration are also often overlapping and interrelated, including social and political factors. A degrading environment affects livelihoods and this, together with other factors, creates the pressure to move. This is the case also in the Tonle Sap Region.

Regardless of their social class, people tend to migrate for employment or education reasons. Urban pull is the force that together with rural push draws migrants to urban areas. The pull is often related to better income, employment or education since the socio-economic conditions are frequently different in urban and rural areas, and the rural inhabitants are disadvantaged in several aspects of life such as income, employment, education, health care and other services (Heinonen, 2004; 2006). In the Tonle Sap Region, the rural push continues to be strong and dominant. The predominance of push factors over pull factors is overwhelming and the majority of migrants are pushed to the cities by factors created by chronic poverty, landlessness, unemployment, debt and natural disasters (e.g. floods and droughts) (Heinonen, 2006; CDRI, 2007A).

5.1 MIGRATION FLOWS IN CAMBODIA - NEGATIVE MIGRATION IN THE TONLE SAP REGION

The latest population survey, the Inter-Censal Population Survey 2004, does not include detailed information about migration. Consequently, this recent data source cannot be used to analyze the migration movements in Cambodia, or to identify in detail the provinces with positive and negative net-migration rates. Hence, the Population Census 1998 is used in this study to give information on migrant's places of origin and destination, and to elaborate the population movements in the Tonle Sap Region. Even though the data source from 1998 is in part outdated by providing information on the migration taking place from 1993 to 1998, it nonetheless shows the major population flows, their direction and reasons. Since people tend to move to where their relatives and friends have settled and also because of the rumours they hear, the previous migration flows provide relevant information also for predicting future migration.

Migration does not take place only from one place to another and vice versa; instead there are several population flows simultaneously moving in and out of the provinces. To find out the provinces where the population is increasing or decreasing due to migration the study analyzed the net-migration flows (NIS, 2000b).

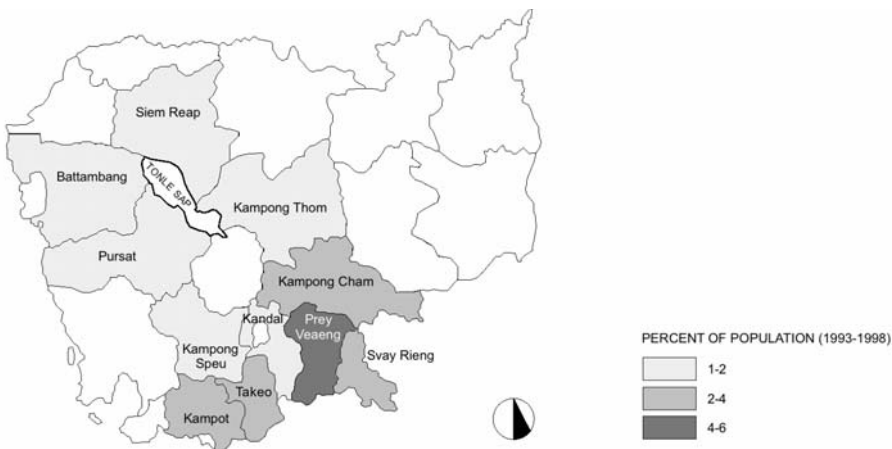
In the provinces showing negative net-migration such as the central areas of Cambodia, the provinces around the Tonle Sap Lake and around Phnom Penh, the population has decreased due to migration (Picture 10). The negative net-migration rates have been highest in Prey Veang, where the population has decreased 5 percent in the five years between 1993 and 1998. Kampong Cham, Takeo, Kampot and Svay Rieng have had a negative net-migration of around 3-4 percent. From the Tonle Sap Region approximately 1-2 percent of the total population has been lost due to migration (NIS, 2000b). The above-mentioned percentages thus indicate that Prey Veang and Kampong Cham have lost approximately 50.000 people, Takeo and Kampot around 20.000 to 30.000 people and Svay Rieng, Kampong Thom, Battambang, Kandal, Kampong Speu, Pursat and Siem Reab 5.000 to 3.000 people in the five study years (NIS, 2000b).

In contrast, Krong Pailin, Koh Kong, Krong Kaeb and Phnom Penh have experienced positive net-

migration during this time. These provinces have increased their population by high numbers (Picture 11). In Krong Pailin, the new migrants constitute almost half of the population of the province, in Koh Kong over 25 percent and in Phnom Penh and Krong Kaeb over 10 percent (NIS, 2000b).

There are several reasons why the above-mentioned provinces have had high positive net-migration. Phnom Penh is the capital city and attracts migrants with small-scale businesses, industries (garment factories), education opportunities, construction and service jobs. The Thai border, on the other hand, offers trade, commerce and employment opportunities in restaurant and casino jobs, cart pulling and small-scale trade (CDRI, 2007A). Krong Pailin draws migrants with free arable land (mine clearing), crop production and mining. Koh Kong has a flourishing marine fishery, fruit tree plantations, casinos, and tourism and trade opportunities with Thailand (Yim, 2002).

In the Tonle Sap Region people have commonly migrated to the provinces nearby. However, Phnom Penh, Banteay Meanchey and Battambang have attracted migrants also from other than the neighbouring provinces. Overall, these three provinces have gathered 73 percent of the total migration in the region and most of the migrants



Picture 10 Tonle Sap Region and the provinces around Phnom Penh have negative net-migration (1993-1998) (NIS, 2000b)

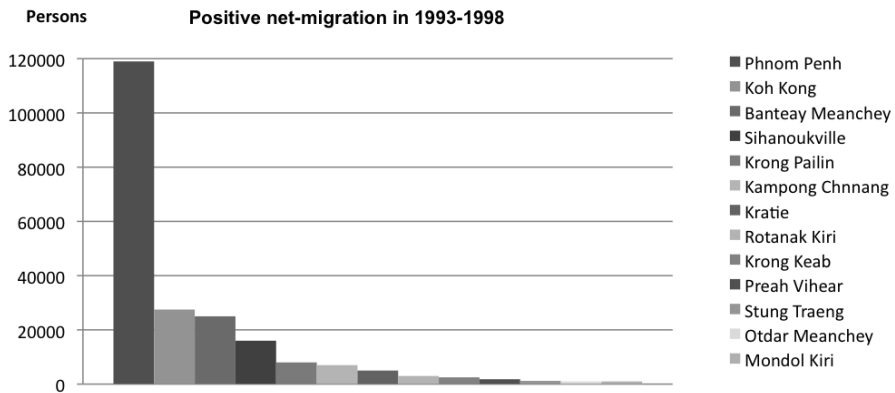


Figure 12 The attractiveness of Phnom Penh for migrants has been overwhelming (NIS, 2000b)

have moved to Phnom Penh (NIS, 2000b) (Picture 12). During the five study years, Phnom Penh has increased its population by migration by around 24,000 people annually (Figure 12). The in-migration to the capital city has been overwhelming compared to the other provinces with positive net-migration. It has been almost four times the amount of in-migration to Koh Kong, which has been the second attractive province. The annual net-migration to Koh Kong and Banteay Meanchey has been over 4,000 people (NIS, 2000b).

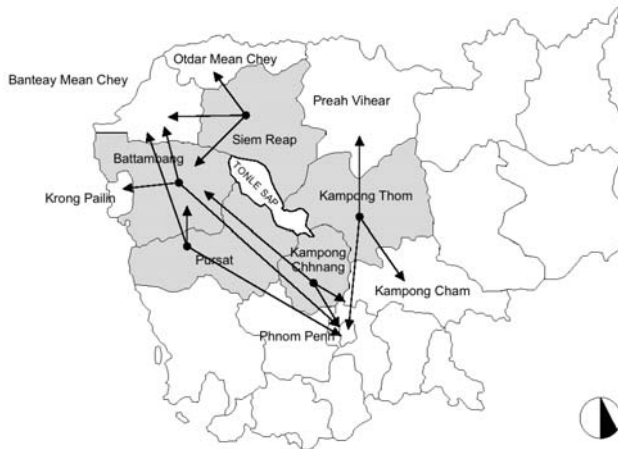
In addition to these three popular destinations, there has been a plethora of population flows in

and out of the provinces of the Tonle Sap Region, for instance:

- People from Battambang have migrated to Banteay Meanchey, Phnom Penh and Krong Pailin.
- From Battambang people have moved to Pursat, Siem Reab and Kampong Chhang.
- People from Pursat, Siem Reab and Kampong Chhnang have migrated to Banteay Meanchey, Otdar Meanchey, Kandal and Phnom Penh.



Picture 11 Migration has doubled the population in Krong Pailin (1993 and 1998) (NIS, 2000b)



Picture 12 Most of the migrants from the Tonle Sap Region have moved to Phnom Penh (1993-1998) (NIS, 2000b).

Other provinces with positive net-migration have been Sihanoukville, Banteay Meanchey, Rotanak Kiri and Mondol Kiri (Figure 12). Sihanoukville has attracted people with rubber tree and oil palm plantations, marine fishing, and business opportunities with Thailand as well as increasing tourism. Banteay Meanchey, especially Poipet, has tempted migrants by flourishing businesses (e.g. importing fruits from Thailand to Cambodia), border crossing activities, work opportunities and tourism. Mostly male migrants have moved to Ratanak and Mondol Kiri due to farming, mining and military career opportunities (Yim, 2002; Carmichael and Nara, 2002).

5.2 CASE STUDY: WHY HAVE PEOPLE MOVED FROM THE VILLAGES OF THE TONLE SAP REGION?

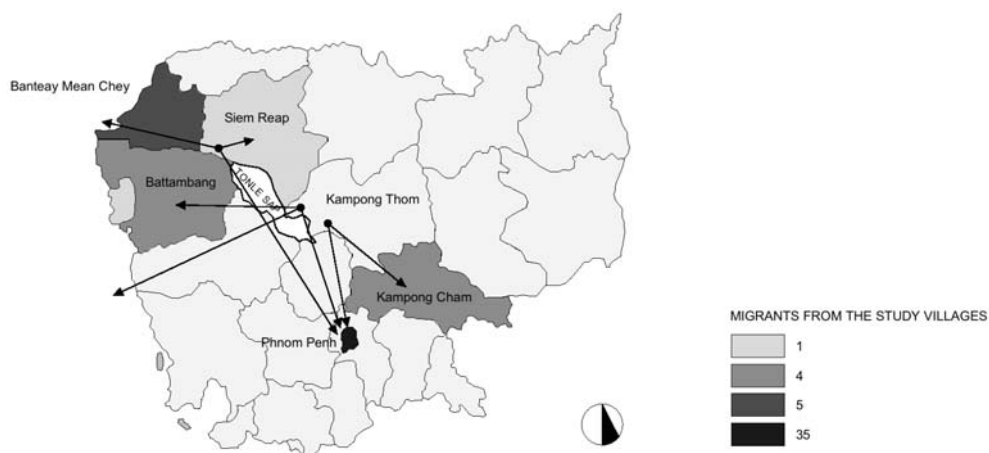
The grass root perspectives presented in this case study were gained by participatory rural appraisal (PRA) methods from the six villages located in the rural areas of the country in the Tonle Sap Region. In particular, the chapter elaborates the observations of the villagers in Kampong Pradam, Peam Kreang and Pou (Haapala et al., 2003b-c; Keskinen et al., 2003d). The information presented is mainly gathered from the focus group

discussions, migration rankings as well as the time and seasonal rankings conducted in the study villages (Haapala et al., 2003a-c; Keskinen et al., 2003a-d). The study sites and the methods used are presented in Chapters 4.1 and 4.2, respectively.

5.2.1 Migration from the study villages 1997-2002

During the five years between 1997 and 2002, the net-negative migration from the study villages of Kampong Pradam, Peam Kreang and Pou has been 1-3 percent. Most of the out-migration has taken place in 2000 and 2001, mainly because of the diverse problems in the livelihoods of the villagers (Table 5). During these years, drought and heavy floods reduced rice yields and hindered fishing activities in the Tonle Sap Lake.

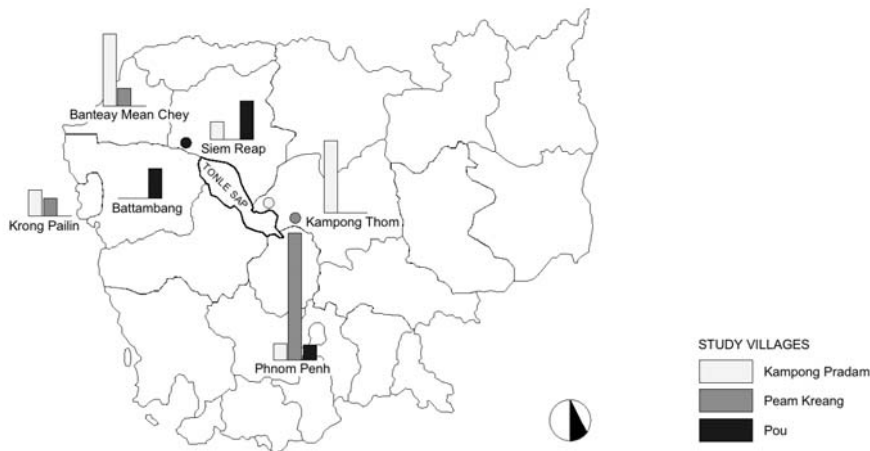
People from the field study villages have generally migrated to the nearby provinces (Picture 13). Nevertheless, Phnom Penh has attracted fairly large numbers of migrants from Kampong Pradam, Peam Kreang and Pou. The capital city has mainly attracted young (20- to 30-year-old) single people, who are typically poorly educated (3rd to 5th grades). Females have, in particular, been kept migrants lured to the capital by the employment opportunities in the clothing industry. They have also been younger (around 20 years of age) than the male migrants, who have migrated to work as paid labourers (Heinonen, 2006).



Picture 13 Migration from the study villages 1997-2002 (Heinonen, 2006).

Table 5 Information of the study villages in the Tonle Sap Region (Heinonen, 2006)

Village	Kampong Pradam	Peam Kreang	Pou
Location	Stoung River, Kampong Thom	Stung Sean River, Kampong Thom	Siem Reap
Livelihood	Wet season and floating rice	Floating rice	Fishing
Population	990 people, birthrate: 28 children per year	1452 people, birthrate: 33 children per year	470 people, birthrate: 4 per year
Migration	<p>In the dry season in 1999 one family (2 females, 2 males) moved to Battambang Province. The family was poor and lacked both residential and agricultural land. During the dry season in 2001, 11 villagers (10 females, 1 male) migrated to Phnom Penh to work in the garment factories. These migrants were all around 21 years old, single and poor farmers that had graduated from 4th grade. In 2001 5 villagers (2 females, 3 males) migrated to Thailand. These migrants were around 25 years old, single and had studied until 5th grade.</p>	<p>In the dry season in 2001, one family sold their agricultural and residential land and migrated to Kampong Cham Province because they lacked animals for rice cultivation. In the wet season of 2001, 15 villagers (11 females, 4 males) migrated to Phnom Penh to work in the garment factories. These migrants were about 20 years of age, farmers, poor and single and they had graduated from 5th grade.</p>	<p>In the wet season 2001, 1 male villager (22 years old, poor and single fisherman) migrated to Siem Reap to work for a private company. Between the years 1988 to 2001, 9 villagers (3 females, 6 males) migrated to Phnom Penh to work in the garment factories or as paid labour. The migrants were poor, single and graduated from 3rd grade.</p> <p>In the dry season in 2000, 2 females migrated to Poipet (Banteay Meanchey) to do business in the market. They were both poor, around 20 years of age, single and had graduated from the 4th grade.</p> <p>In the wet season in 2000, 3 villagers (2 females, 1 male) migrated to work at Banteay Meanchey as paid labour. They all were 19 years of age, poor, single fishermen and had graduated from 2nd grade.</p>



Picture 14 Future migration out of the study villages will follow the previous migration flows (Heinonen, 2004).

Rumours and stories heard from friends have been the main source of information for the villagers when choosing their destinations. Most of the villagers have known somebody from the destination or have heard something good about the place beforehand (Heinonen, 2006). Hence, future migration also tends to follow the previous migration flows, a fact which is corroborated by the migration rankings conducted in the study villages (Picture 14).

5.2.2 Rural push - factors creating the pressure to move

The push from the Tonle Sap Region is not caused by just one or two factors. Population growth, declining water quality, diminishing fish catches, sedimentation, floods, loss of forest cover and droughts are all factors that hinder the livelihoods and health of the villagers. Together these factors and their changes create the driving force away from the lake - the rural push. This force is largely connected to environment and water resources, and hence the environmental pressure is a root cause for migration from Kampong Pradam, Peam Kreang and Pou villages. In addition, the socioeconomic factors, poverty and population growth have a significant impact on the push from the lake. However, water resources, water quality and water quantity for the most part, play a major role in the rural push of the Tonle Sap Region influencing the intensity of the driving force.

The driving force from the region is fairly complicated (Figure 13); it is more like a net that is weaved of many different matters. These components with many other subcomponents form small circles that finally shape the net of rural push. The circles closely resemble vicious circles where the end of the circle feeds the start of the circle. To understand the different factors creating the rural push, their backgrounds and relations, the factors are explained more deeply in the following points. The quotations presented reveal the observations of the villagers.

Population growth

- The population in the provinces around the Tonle Sap Lake is around 3.4 million and around 1.1 million of these people live in the lake's area of influence (NIS, 2005c-f).
- The annual population growth rate in the region (2.6 percent) is higher than the national average (1.81 percent) (NIS, 2005c-f).
- In the study villages, the annual birth rate is 1-3 percent (Heinonen, 2006).
- Population growth creates pressures on:
 - Food and natural resources*
 - The villagers are suffering from food shortages particularly before the harvest time. Population growth will deepen food shortage.

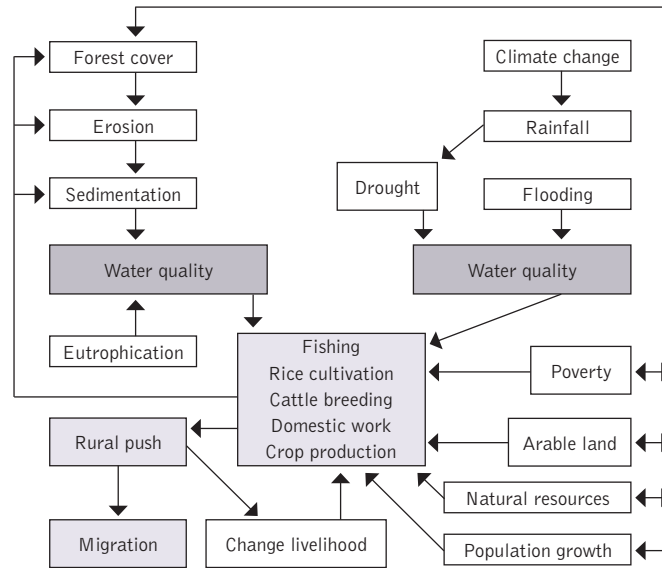


Figure 13 Concise diagram of the environmental driving factors (Heinonen, 2006)

- Growing firewood collection and hunting diminish natural resources.
- The access of the local villagers to the natural capital has decreased during the last years (World Bank, 2006a).
- Even though the fish catches from the lake have increased from the past, population growth has reduced the household fish catches (Baran and Myschowoda, 2008).

Arable land

- Lack of accessible and fertile land is a problem in the villages and there is not enough arable land to be shared by the new families.
- The economic land concessions and large development projects have reduced the available land areas and access to natural resources (e.g. in Kampong Thom) (UN, 2007).

Water quality

- The increasing population together with non-existing wastewater treatment and sanitation leads to noteworthy pollution and nutrient load to the water systems of the region, particularly in the floating villages.
- Reduced water quality has an impact on fish catches and other natural resources (Lamberts, 2008).

Rice cultivation

- Agriculture is the most important source of livelihood in the region and in the Kampong Pradam and Peam Kreang villages.
- Floating rice and wet season rice are the most common rice varieties used.
- The average rice yield for wet season rice is low, approximately 1.5 tons per hectare.
- The common farming methods do not include the use of fertilizers (except manure) or pesticides, water control methods or mechanical land tilling.

- Rice cultivation in the study villages is harmed by:

Poverty

- In case of sickness or debts, families have to sell their draught animals or land or take high interest loans. In addition, deep poverty and food shortages often push farmers to use their seed grain, which has high impacts on their livelihood and its continuity.

Lack of arable land

- New families become landless since there is not enough available arable land to be shared.
- Often the land owned by poor villagers is infertile and villagers cannot afford to use fertilizers.
- The poor often farm in areas considered common property, without tenure security and thus access to these lands is declining due to the increasing commercial agricultural activities in the region (CNMC, 2006).

Lack of water controlling systems

- Severe floods harm the rice cultivation.
- Droughts, irregular rains and the lack of irrigation make cultivation of rice very fragile.

Fishing and fish catch

- The livelihoods of 1.2 million people are dependent on fishing in the Tonle Sap Region (Baran and Myschowada, 2008).
- Fishing provides income to 10 percent of the region's population and offers subsistence income to 40 percent (ADB, 2003).
- Fish is also an important protein source for the villagers throughout the year (Banuri et al., 2006).

- The fisheries of the Tonle Sap Lake are characterized by unfair distribution, widespread corruption and environmental degradation due to unsustainable use of the natural resources.

- The fish catches are dependent on water quality, sediment accumulation, floods and flooded forests.

- The sedimentation of the lake floodplains is rather high, which causes decreased oxygen concentrations in the bottom water. The overall water quality together with the oxygen level have an impact on the survival of fish eggs, larvae and even adult fish, and thus impact the fish catches of the villagers (Campbell, 2003; Kummu et al., 2008; Lamberts, 2008).

- The timing and continuity of the floods also have an impact on the fish population in the Tonle Sap Lake through effects on migration and the spawning environment (Lamberts, 2008).

- The Tonle Sap Lake is divided into fishing lots that are auctioned to private companies. In addition, there are many areas that are under some type of informal ownerships, which reduce the available fishing ground of the local villagers (Resurreccion, 2008).

- In 2001, the government released 56 percent of the area that was formerly under commercial fishing lots for community fishing (Resurreccion, 2008).

“Before 1990, there was plenty of fish in the Stoung, Stuong Sean, and Sankai Rivers, as well as in the Tonle Sap Lake. In those days one family could catch up to 20 kg of fish per day. Since 1990 both the quantity and the amount of fish species (Trei Dam, Rey Trei, Ka Hai, and Trei Kou Chrao) have decreased and, at present, one family can catch only up to 1–2 kg of fish per day. The main reasons for decreased catches are

the use of illegal fishing gears, shallower water depths caused by sedimentation, over-fishing, loss of flooded forest, high floods, water contamination and population growth.” (Villagers of Kampong Pradam, Peam Kreang and Pou)

“In autumn 2002 (October and November), we witnessed mass deaths of fish as a result of lower water quality, sedimentation, waste, pesticides, and chemicals. Our floating village was surrounded by dead fish and we suffered from the terrible smell and lack of clean drinking water.” (Villagers of Pou)

Changing weather and rainfall patterns

- Since there is a lack of water controlling systems in the villages, the erratic weather and rainfall patterns harm rice cultivation.
- Villagers sow the seeds of floating rice in April-May and wet season rice in May-June and during these months rain is needed to get the rice seeds to germinate and the seedlings to root.
 - However, rainfall patterns have been changing and in the months of spring there has often not been enough rain, which has remarkably reduced the potential rice yields of the villagers.
 - Heavy rains in the rainy season, especially in September, create floods that are essential for rice cultivation. On the other hand, when they are very severe, they destroy rice yields, roads and other infrastructure.

“Before 1990, the rain patterns were regular since the forest cover in the catchments was substantially higher. Since 1995, the rainfall has, however, decreased and its timing changed. We think that the reasons behind this are the lack of forest conservation, increased human activities and climate change.” (Villagers of Kampong Pradam and Peam Kreang)

Floods, their rapidity and height

- Flooding is a familiar phenomenon to the nature and people of the region.
- Annual floods are essential for the rice varieties cultivated in the region, since there commonly are no water controlling systems available.
- The height and rapidity of the flood has, nevertheless, an impact on the rice yields.
 - If the flood rises rapidly, the plants cannot keep up with the increasing water levels and water will finally cover the plant and suffocate it (floating rice).
 - If the flood rises too slowly, the rice sprouts collapse due to lack of the supporting effect of the water.
- Floods are also essential in supporting fish migration and breeding in the lake.
 - Due to the high fish migration into the lake, the fish catch is best during the months when water levels rise and a lot of fish migrate into the rivers.
 - The rapidity and height of the flood, however, has an impact on the potential fish catches.

“Before 1990, there were regular and relatively low floods in the village. In those days, the water bodies were deeper because of lower sedimentation, and were thus able to store more water. At that time, the peak of the flood was 3–3.5 m, which was a good height for rice cultivation. Since 1995, the floods have reached to 4–6 m, which has been too high. The floating rice yield is highest when the flood rises to 2.5–3.5 m, but if the water rises up to 3–4 meters, it is too high and the water suffocates the rice plants. Exactly how high the rice is able to grow depends on the rice type but normally a four-meter flood is too much for most

types of rice. We think that the reasons behind the higher floods are: a loss of forest cover in the uplands and mountains, sedimentation in rivers and lakes, climate change, rain in upland areas and rising water levels in the Tonle Sap Lake.” (Villagers of Kampong Pradam and Peam Kreang)

Flood height has an influence on the fish catch; if the flood is 3–4 m, the fish catch is high, but if the water rises up to 6 m, the fish catch decreases.” (Villagers of Kampong Pradam, Peam Kreang and Pou)

Water quality

- There is almost no piped water in the region and most of the inhabitants use surface water or unprotected dug wells as their main source of water (NIS, 2005c-f).
- Most of the villagers in the study villages rely on surface water. For example, villagers in Kampong Pradam do not have wells and villagers use surface water from the Stoung River for all purposes.
- Overall, the water bodies offer water for rice cultivation, fishing, cattle breeding, irrigation and household needs.
- Water quality has lately deteriorated.
 - The quality is still rather good during the wet season, when the water level is higher.
 - During the dry season (January to September), water quality has notably deteriorated and water becomes contaminated by waste water, human waste and sediment.

“Before 1990, water quality was rather good in the Stoung, Stuong Sean, and Sankai Rivers, especially during the wet seasons. Since then the water quality has

become notably poorer during the dry seasons (January to September), when water has become contaminated due to human activities, sediment and waste disposal from upstream. We think that the reasons for the impaired water quality are increased population, shallower water depths, increased sedimentation, decreased water flows, human waste and loss of forest cover.” (Villagers of Kampong Pradam, Peam Kreang and Pou)

Water depth and sedimentation

- High sediment concentrations lower water depths and water quality, and thus hinder the water use in the village, especially during the dry season (June and August).
- Sediment concentration also has an impact on fish breeding and catches.

“Before 1990, the rivers were deeper but since then the water bodies have been filled in due to the increased amount of silt in the water flows from the uplands, the heavier use of Samras (types of fishing gears that hold sediment), and increased waste resulting from human activities. The problem is evident in the dry seasons (June and August), when a large amount of sediment caused by increased erosion impedes water use. Excessive forest cutting, express boat traffic and mining in the upland areas are the main reasons for erosion.” (Villagers of Kampong Pradam, Peam Kreang, and Pou)

Forest cover

- The forest cover in the Tonle Sap Region has reduced from 80 percent in 1965 to about 40 percent today, with the greatest loss occurring since the 1990s (CNMC, 2006).
- The forest is mainly being cleared for conversion of land to agriculture but also for timber, charcoal, firewood and for construction materials.

- Forest cover is important for many reasons:
 - It offers shelter for birds, breeding places for fish, gives protection to floating villages against storms, fortifies soil, decreases erosion and sedimentation, absorbs water and hinders flooding.
- During the rest of the year, the villagers have poorer health due to the lack of food and hard fieldwork.

“Before the year 1993 there was plenty of flooded forest around the village but since then there has been a clear decrease in the forest cover. The forest cover has decreased because of large-scale forest cutting for firewood, house repair and building, material for fish catches (Samras), and burning of the forest to make turtle hunting easier.” (Villagers of Kampong Pradam, Peam Kreang and Pou)

Health and level of livelihood

- The health of the villagers is highly dependent on food – on the rice crop and the fish catch.
 - In Pou village, the livelihood and health of the villagers depends mostly on fish catches.
 - Villagers catch a lot of fish in February, March and July, and in these months villagers have enough food and money (from selling fish).
 - The fish catch is smallest between April and June as well as between August and November, when the water has a high sediment concentration or the water level is high. During these months villagers have shortage of fish and rice, which affects their health.
 - In the Kampong Pradam and Peam Kreang villages, the livelihood of villagers is highly dependent on the rice yields.
 - The villagers have enough food and free time from fieldwork between March and August.

- The level of livelihood in all the study villages has decreased due to the erratic rains and floods, which have harmed the cultivation of floating and wet season rice, due to the lack of good floating and recession rice seeds, landlessness, lower fish catches and fewer natural resources (e.g. turtles, birds, wildlife, flooded forest).

“We catch lots of fish in February, March, and July, and we have enough food and money for living expenses (from selling fish). The fish catch is smallest between April and June, as well as between August and November. During these months we have a shortage of fish and rice, which lowers our living standards and health.” (Villagers of Pou)

“From March to August our health is better because we have more food – rice – and free time from the work in the fields. The rest of the year we suffer from a lack of food, hard work in the fields and cold weather patterns. Diseases such as bad colds, high fever, and dysentery harm both the young and the old villagers.” (Villagers of Kampong Pradam and Peam Kreang)

“Earlier the level of livelihood was higher; there was more rainfall, the floods were regular, we had good rice seeds to cultivate and plenty of natural resources (e.g. fish and forest) around the village. Since 1995, the level of livelihood has decreased because of the irregular rainfall and floods, which has harmed the cultivation of floating and wet season rice. Some families also lack land for cultivation because of the increased population and poverty.” (Villagers of Kampong Pradam and Peam Kreang)

5.2.3 Urban pull - drawing villagers to cities

The urban pull from the study villages is also determined by many different factors. These matters alone and together persuade villagers to move to cities or other provinces. The reasons that draw migrants to the cities are (Figure 14):

- higher education possibilities
- better employment opportunities
- income differences between urban and rural areas
- western way of life in urban areas (e.g. presented by the media)
- relatives and friends that are already living in the destination
- the success stories that migrants hear about the city and the job opportunities

Especially the friends in the destination and the rumours and stories are very important information for the migrants when they are choosing their destination from the whole gamut of attractive places. However, the weight of the different factors that comprise the urban pull is changing along with the lives of migrants, their values and age. The western lifestyle, education, income differences and friends, for instance, might play a great role for younger villagers and thus they are more tempted to move to the bright city lights.

These previously mentioned factors together with rural push create the need for migration (Figure 14). The field studies, nevertheless, indicated that the rural push is a stronger force than the urban pull in the villages of the Tonle Sap Region: Kampong Pradam, Peam Kreang and Pou. The villagers revealed that they do not find urban life attractive; on the contrary, they would rather live in their home villages. However, they mentioned that they have serious problems with their livelihoods. If they face further setbacks, migration is their only option. The villagers said that if the problems in the future become so deep that they are unable to earn their living, they would move to the business cities such as Phnom Penh and Poipet. They assume that in these cities they will be able to find work as paid labourers either in business or in small-scale trading (Heinonen, 2006).

Presently, the urban pull appears to be relatively low in the study villages and the migration pressure seems to be mainly dominated by the rural push. On the other hand, we cannot underestimate the impact of urban pull in the future. With better infrastructure, commuting to cities, even further away, will be easier. This will, with high probability, increase migration from the study villages. In addition, the better road network shortens commuting times, making visits back home easier and thus lowering

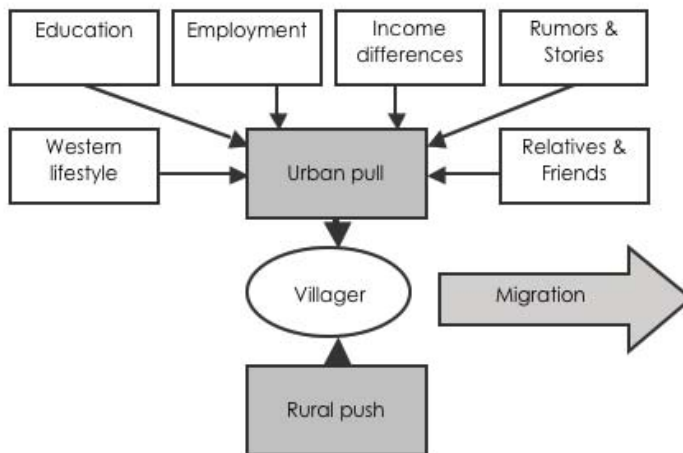


Figure 14 The decision to migrate is determined by many factors

the threshold for migration. Better road network and infrastructure, including the media, will bring the modern lifestyle also to the secondary cities and spread the information and rumours to the people in the villages. Already now, a glorification of the western life style, modernization and city-life can be observed among the young villagers, and this trend will undoubtedly continue in the future.

6 Socially just development of water resources: The Case of MRC

As we have learned in the previous chapters, the livelihoods of the people in the Tonle Sap Region are in many ways directly or indirectly dependent on water and natural resources. As a consequence, alterations in the ecosystem may destroy the traditional livelihoods of the inhabitants and intensify migration. The Mekong Region is during these rapid developments experiencing a growth in demand of energy, navigation routes, irrigation as well as fish and aquatic resources. This development, however, causes conflicts between the modern sectors and the local traditional sectors of society (Keskinen et al., 2008). The villagers living near the Tonle Sap Lake are relying on the traditional cultivation and fishing methods, and for the most part, will be under a great pressure if the water resources development plans for the river become reality (Fox, 2004; Heinonen, 2004; 2006). For example, the scheduled massive hydropower development projects can change the flood-pulse system of the lake and as a result affect the communities relying on the river's resources (Blake, 2001; Heinonen, 2004; 2006)

In recent years, the Cambodian economy has grown rapidly. The participatory poverty assessments (PPAs) of CDRI (2007), however, show that many of the poor dwellers in the Tonle Sap Region are not benefiting from this development. The study also shows that the poor in the region have become increasingly dependent on land and water based natural resources to sustain their fragile livelihoods. Numerous years of draught and flooding, along with poor soil and a lack of water management capacity, have eroded farming productivity. Traditional access to forests and fisheries is diminished due to the growing population and conflicts between the local elites and powerful actors from outside the village. Increasing numbers of the poor are therefore selling their land or labour locally or are migrating elsewhere in search of employment. These poor commonly also suffer from the lack of other assets such as clean drinking water, education, vocational training and health care hampering their abilities to rise from the poverty trap (Ballard, 2007).

The Mekong River Commission (MRC) is one of the major intergovernmental institutions in the region addressing holistic development of water resources. MRC aims to highlight social justice by bringing the interconnections of economic growth, environmental sustainability and people's wellbeing under broader consideration and interacting with other stakeholders of the region. Lately, the commission has set poverty reduction and IWRM as its main goals (Keskinen et al., 2008). While environmental and social aspects are high on the commission's agenda, the implementation at the practical level has been far from the principles stated on the agreement (Mehtonen et al., 2008). There are several reasons for this mismatch; first, the poor level of democracy in the member countries obstructs the implementation of the participatory processes. Second, the lack of commitment and co-operation between the key ministries and regional institutions within the country and region decrease the possibilities to analyze the impacts of the development plans regionally as well as cumulatively. Third, the low authority of the commission in the regional discussion hinders the ability to achieve its goals, particularly the ones related to holistic and socially sustainable development. Nevertheless, MRC has strong expertise in water governance of the basin, the resources that have a great impact on the region's economy and social development, and thus needs to be part of the regional planning if equal poverty reduction is desired (Hirsch et al., 2006).

6.1 MRC IN THE FIELD OF DEVELOPMENT

6.1.1 Commission in the eyes of the member countries

The Mekong River Commission is an intergovernmental body serving the interests of Cambodia, Laos, Thailand and Vietnam. The commission seeks to promote and coordinate sustainable management and development of water and related resources for the mutual benefit

of the member countries and people's well-being (MRC, 2003c). MRC has a history of fifty years, during which there have been ups and downs in the development of the organization. There have been changes in the member base, agreement, agenda as well as in the level of authority the commission has in the member countries and in the regional co-operation (Keskinen et al., 2008). The founding agreement of the Mekong River Commission, or actually the Mekong Committee (MC) in 1957, was strict and tied the member countries to follow the agreement according to which - "the existing low water discharge of the river would not be reduced in any way or at any site" Ratner (2003). Thus the countries agreed to notify of and negotiate development plans that have transboundary impacts. In the course of its history, the role of the commission has, however, weakened and this strong statement has crumpled gradually. The present agreement uses softer words such as promoting, coordinating and supervising, allowing the member countries to choose how and when to collaborate.

An identical weakening can be seen in the organizational structure and country representation of the commission today. The MRC has three organizational levels under the governments of Cambodia, Laos, Thailand and Vietnam: Council, Joint Committee and Secretariat (Figure 15):

- The council is formed of ministerial level members from each of the member countries. This highest level in the organization structure

makes decisions regarding policies and provides other necessary guidance in order to implement the agreement of 1995 (MRC, 2005b). Today, the council has representatives from water and natural resources agencies, agriculture and rural development ministries, excluding the powerful policy agencies (MRC, 2005a; Hirsch et al., 2006). This representation might limit the scope of the organization restricting it only to environmental and rural issues, and ignoring the overall economic and social development of the basin. Hence, the important and more powerful development aspects of the region, such as urban development, may override the activities of the commission.

- The Joint Committee is responsible for the implementation of the policies recognized by the Council as well as for supervising the activities of the Secretariat. The ministry representation is similar to that of the Council, in part highly environmentally focused, which in the long-run creates obstacles for successful policy implementation in the member countries (MRC, 2005a).
- The work of these above-mentioned three parties is supported by the National Mekong Committees (NMCs). The role of these Committees is essential by bringing national grass root information into the decision-making level. Unfortunately, the NMCs are rather marginalized from the relevant national

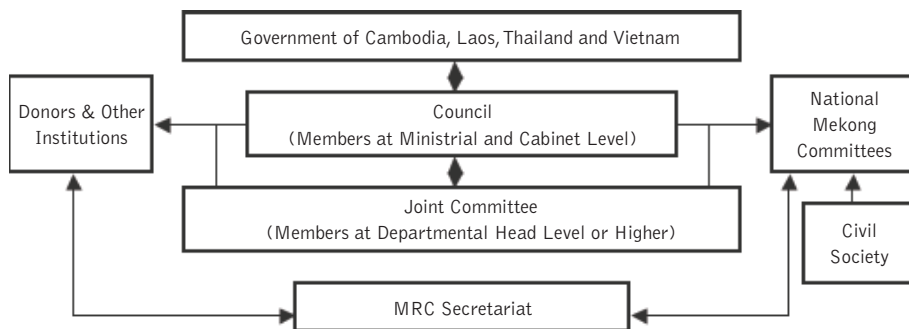


Figure 15 The organizational structure of MRC

decision-making processes. In addition to the low level of participatory governance in the countries, the interests of national or civil society are not broadly presented (Badenoch, 2002). The NMCs are also accused of promoting only the interests of their own ministries instead of focusing on the national issues (Hirsch et al., 2006).

6.1.2 Collaboration with other development organizations

The Mekong River Commission is not the only development organization working in the region, neither in the field of water resources management nor poverty reduction. Since water resources have a multidimensional role in the overall development having connections with e.g. energy, trade, agriculture, fishing, employment and health, there are also other major organizations working in the field of water resources development in the Mekong Region. As we have learned, the MRC is surrounded by regional arrangements and institutions that engage the member countries more than the commission does. The battle of varying interests has put the MRC into a situation where it has lost its position and means of fulfilling its development goals, particularly the goal of addressing socially just development of the basin and the use of its resources (Hirsch et al., 2006).

The interaction between the MRC and other development programs, such as the GMS program has remained rather limited, even though they both address the development of the Mekong Region and its water resources. The same can be said about the cooperation with ASEAN or with other institutions having water-related issues on their agendas (Keskinen et al., 2008). The lack of co-operation, and particularly its impacts on the commission's authority, has lately been noticed in the MRC. Hence, regional cooperation is strongly emphasized in the new agenda. The MRC aims to enforce collaboration with other regional cooperation initiatives e.g. ASEAN, GMS and MWRAP, believing that these strategic partnerships clarify the roles of the organizations and bring synergies to the development processes (MRC, 2006). The new strategic plan addresses stronger

collaboration with a number of organizations. It aims to:

- Improve the profile of MRC in the ASEAN working group for water resources and other environment and development initiatives.
- Work with the Flood Control and Water Resources Management Program and the Strategic Environment Framework of GMS to improve the effectiveness of the organizations and to increase cooperation with China and Myanmar.
- Strengthen collaboration with the Mekong Water Resources Assistance Program (MWRAP) of the World Bank by incorporating knowledge from WUP and BDP programs as well as different policy scenario analyses.
- Co-operate with Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) to improve regional collaboration and give the MRC a higher role to drive sustainable development.
- Enhance collaboration with the Forum for the Comprehensive Development of Indochina to have a perspective on regional development and increase cooperation with China.
- Collaborate with the Neighbouring Countries Economic Development Cooperation Fund (NECF) to strengthen the role of MRC and to enhance social development.

Even though the above-mentioned collaboration plans are desired signs of regional development in both the commission and regional governance, there is a threat that the MRC has already missed the wave of collaboration (Hirsch et al., 2006). There are many organizations addressing the development of the region, particularly through hydropower. The member country governments also seem to fear that the cooperation with the commission slows down or even prevents their plans to utilize the river as desired. Hence, there is a great possibility that the MRC is already, or

will be, sidelined from the planning and decision-making processes of these crucial development plans (Keskinen et al., 2008).

6.2 WORKING FOR SOCIALLY JUST DEVELOPMENT

6.2.1 Vision

“To achieve an economically prosperous, socially just and environmentally sound Mekong River Basin by promoting and coordinating sustainable management and development of water and related resources for the countries’ mutual benefit and the peoples’ well being.”

“The (water) related natural resources and environment are natural assets of immense value to all the riparian countries for the economic and social well-being and living standards of their people” MRC (2003a).

Besides aiming to achieve an economically prosperous, socially just and environmentally sound Mekong River Basin, as stated in the agreement of the Mekong River Commission in 1995, the latest strategic plan of the organization (2006-2010) stresses poverty reduction, pro-poor investments and development, effective regional cooperation, basin-wide environmental monitoring and impact assessment as well as Integrated Water Resources Management (IWRM) (MRC, 2006). IWRM as a means to alleviate poverty, to support joint management of water and related resources and to enhance economic growth has an immense weight in the new strategic plan.

What is more, the recent strategic plan draws attention to the Millennium Development Goals (MDGs) and underlines the two goals that are relevant to the mission of the commission - eradicate extreme poverty and hunger, and ensure environmental sustainability (MRC, 2006). Ensuring environmental sustainability addresses the problems of the poor and their relationship with the environment. Highlighting the linkages between social development and the environment

is constructive for the work of the commission, since the connections with people’s wellbeing, particularly that of the poor dwellers’, and natural resources are obvious in the region. The strategic plan thus states that *“Wise, environmentally sound and carefully targeted investments in the water sector hold the potential to have significant pro-poor impacts; having a direct role in raising the level of food security and real incomes of the rural poor...”* MRC (2006). This statement shows that the development vision of the commission is greatly orientated towards rural poverty reduction, whereas urban development is not broadly addressed. Including both dimensions of poverty into the vision, however, would be relevant for socially just water resources management of an urbanizing region, such as the Mekong (MRCS, 2002; MRC, 2006).

6.2.2 Participation

The vision of MRC calls for deep understanding of the environment, the people, their problems as well as the interconnections of social and environmental development. Hence, hearing the voice of the civil society of the region is essential for finding successful development paths and ways of implementation. Stakeholder participation is an integral part of the IWRM principles and also highlighted in the new strategic plan.

The MRC has clarified the importance of public participation already in 1999 by publishing a report of concepts, terminologies and guidelines concerning public contribution (MRC, 1999). This report is extensive in scope and multidimensional. The concept of participation is well planned and introduced, and takes into account the different groups of stakeholders and levels of participation. In this document public participation is seen as a process where the key stakeholders gain influence and take part in decision-making by planning, implementation, monitoring and evaluation of the proposed plans. This process goes through four stages: information gathering, information dissemination, consultation and participation. The key stakeholders are those who are the most affected/vulnerable and those who are considered to hold the most influence over project implementation (Table 6). For example, the stakeholders living in the region should be linked to all stages of the

Table 6 The level of participation in the work of MRC

Group A	Least influence, most importance
Level of participation	Attention during the whole process
Group definition	People living in the project area (may exclude the powerful and influential people) Local governments that have little power to influence resource management decisions
Group B	Most influence, most importance
Level of participation	Good working relationships
Group definition	Ministry responsible for the project Party members who have strong influence in a single party state Developers who are the main investors
Group C	Most influence, least importance
Level of participation	Information and idea sharing
Group definition	Donors or agencies that have strong influence in planning and finance or mobilization of people Mass organizations
Group D	Least influence, least importance.
Level of participation	Information sharing and opportunity to make queries
Group definition	Various groups who have low stakes in the project Marginally affected people, project beneficiaries or collaborators

participatory process and be given some level of authority in decision-making (MRC, 1999).

Even though stakeholder participation has been identified as important for the work of the commission for several years, the implementation of participatory development has not followed the proposed principles. There have been multiple problems in putting this soundly defined participation approach into practice. On the one hand, the voice of civil society is not loud enough in the region, and on the other hand, the mechanisms of MRC to hear these voices have not been effective. The member countries are different in terms of their democracy and patterns of public empowerment, which affects the power of the public voice. The local communities tend to feel that the MRC is a distant organization, which is not easily approached. The local communities are physically and administratively very far from the National Committees, which should feed grass root information into the decision-making processes and programs (Hirsch et al., 2006). The NMCs neither have high respect for national decision-making nor do they always follow the interests of

the public at large, which diminishes the level of local knowledge in the committees as well as in the commission.

Lately, the dialogues including local, national and regional actors have begun to gain a foothold in the Mekong Region. The various events to support the vertical and horizontal dialogue, such as the Mekong Related Water Dialogue promoted by IUCN and its partners, are welcome initiatives of socially just development. These initiatives have also improved the links between the regional institutions and the local concerns (Mehtonen et al., 2008). The low empowerment of civil society has been acknowledged also in the MRC, especially by the donors. As a result, the public participation strategy has begun to revive and some partners such as IUCN, WWF and NGOs are nowadays invited to observe the annual meetings of the commission (Sokhem and Sunada, 2006). The MRC has great expectations of the adopted IWRM approach seeing that it enforces public participation more effectively. Hence, the MRC Secretariat is currently developing a policy for meaningful stakeholder participation within the Joint Committee and

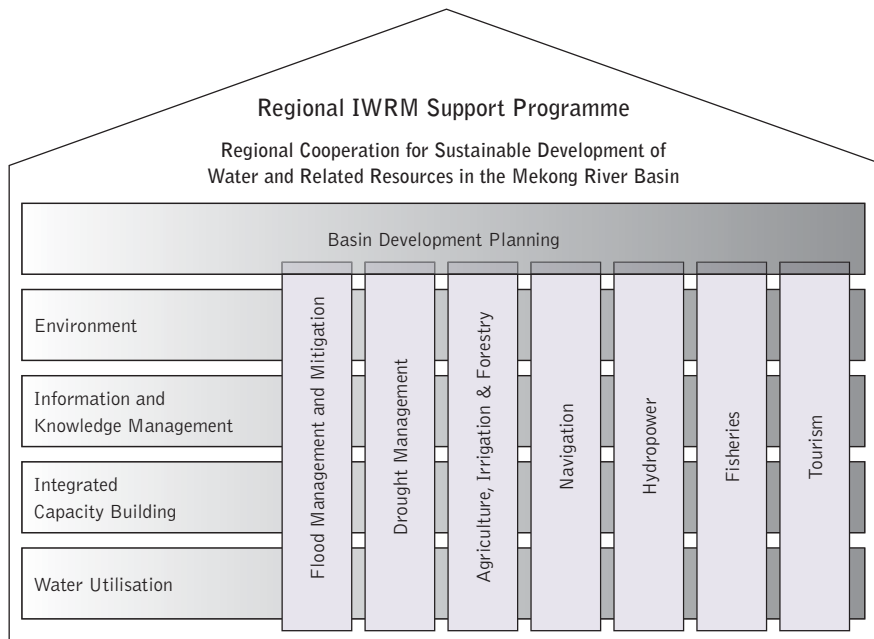


Figure 16 The regional IWRM process is supported by the twelve programs of MRC (Cogels, 2005)

Council by formalizing civil society consultations as part of the annual meetings of the commission (MRC, 2008a). The hydropower consultation in 2008, including governments, industry, developers, NGOs, financing agencies and academics, was, for instance, a great example of an event, where stakeholder participation was conducted in reality and different aspects of development were heard.

6.2.3 Programs - Implementing the vision and participation

The Mekong River Commission aims to fulfil its vision by analyzing the economic, social and environmental impacts of the ongoing and proposed development plans, making scenario analyses, identifying important projects and programs and providing scientific information and policy advice (MRC, 2006). The new integrated program structure of the commission includes twelve programs (Figure 16). Seven of these are called sector programs focusing on the core problems of the basin: 1) *Flood Management and Mitigation*, 2) *Drought Management*, 3) *Irrigation, Agriculture and Forestry*, 4) *Navigation*, 5) *Hydropower*, 6) *Fisheries* and 7) *Tourism*. These programs are

analyzed through the four cross-cutting themes: *Environmental Management*, *Information and Knowledge Management*, *Integrated Capacity Building* and *Water Utilisation*. All the above-mentioned programs are finally linked to the wider *Basin Development Planning Program* (MRC, 2006).

The seven sector programs contribute centrally to the goals and strategic objectives of the MRC Strategic Plan (Figure 16) (MRC, 2005b; MRC, 2006). Their implementation should also follow the participation guidelines identified by the commission (MRC, 1999):

Fisheries Program 2000->

- The program seeks to achieve coordinated and sustainable development, utilization, management and conservation of the fisheries in the Mekong Basin.
- It aims to support fisheries to sustain high yields and economic outputs.
- The program undertakes research, gives training and disseminates information to policy makers and planners.

- At the beginning of the program the participation was limited to the fishery officers through the joint training evenings. The participation of the local people, who are dependent on the fish catches and are in everyday contact with the water bodies and fish species, was limited.
- Over the last years, there has been an evident increase in recognizing the importance of participatory management practices. Today the program works closely with fishing communities and government agencies to enhance co-management of local fisheries.
- The program also addresses the practical and strategic concerns and priorities of women in fisheries development. (MRC, 2003a; MRC, 2003b)

Irrigation, Agriculture and Forestry Program 2001->

- The program aims for cooperative sustainable development and utilization of land and water resources to achieve poverty alleviation and food security.
- It plans to preserve the integrity of the watersheds through monitoring land use changes, identifying problems and promoting efficient irrigation practices.
 - The program has so far been based on expert knowledge and the participation of local people has not been included in the program approach.
 - Lately, however, many of the program components have used participatory methods, for instance, in the evaluation processes. (MRC, 2003a-b; 2006)

Flood Management and Mitigation Program 2005->

- The program intends to prevent, minimize and mitigate suffering and economic losses due to the excessive floods, while preserving environmental benefits.
- It has constructed a flood forecasting system including a warning mechanism, which it also maintains.
 - The formulation process of the program was participatory including e.g. NMCs, representatives of line agencies, civil society organizations and international organizations. (MRC, 2005c)

Hydropower Program 2005->

- The program supports hydropower development in order to meet the needs of economic development by recognizing the requirements of ecosystems and social interests.
 - Lately, the program has consulted various stakeholders such as governments, industry, developers, NGOs, financing agencies and academics. (MRC, 2008b)

Navigation Program 2006->

- The program promotes freedom of navigation, increase in social development and international trade opportunities.
 - The program is planned based on expert knowledge without including participation or social aspects.
 - During the program implementation, the institutional development component of the program, nonetheless, aims to co-operate with various stakeholders such as the MRC Dialogue Partners, development banks,

international financial institutions, international organizations and civil society (MRC, 2003a; MRC, 2003b; MRC, 2006d)

Drought Management Program 2007->

- The program plans to implement a drought forecasting system, impact assessment and management policy and drought preparedness and mitigation measures.
 - The program is planning to involve the public at some levels of its work. (Te, 2007)

Tourism Program

- The program aims to promote tourism in a balanced manner by ensuring necessary environmental protection.
- The program is under development and pilot studies have been conducted.

The four cross-cutting programs are supposed to collaborate with the above-mentioned seven sector programs by assisting and supporting them with respect to the theme of the cross-cutting programs (Figure 16):

Environment Program (EP) 2001 ->

- The program aims to strengthen the framework for transboundary environmental management and to generate data, information and knowledge for decision making.
 - In the early implementation phases of the program, the social impacts were not taken into account and the program focused mainly on environmental aspects.
 - Lately, capacity building and networking as well as promotion of good governance and public involvement in environmental issues have risen up the agenda of the program. (MRC, 2003b; MRC, 2005b)

Information and Knowledge Management Program (IKMP) 2005->

- The program facilitates access to and use of information and decision-supporting tools.
- The Decision Support Framework (DSF) of the program, for instance, helps to investigate environmental and socio-economic impacts of changes in the quantity and quality of flows in the Lower Mekong river system.
 - IKMP is developed through participatory processes.
 - It supports public data access and information sharing. (MRC, 2007)

Integrated Capacity Building Program (ICBP)

- The program seeks to strengthen the capacity of MRC, NMCs and the line agencies in all fields leading to effective river basin management and integrated water resources development.
- By building capacities the program endeavours to remove the obstacles to regional planning and poor participation.
 - ICBP has conducted several training workshops for the Fisheries, Agriculture, Forestry and Irrigation and Environment Programs.
 - It has assisted, for instance, the Fisheries Program in training around 120 people working in mid-to senior level management in the line agencies and more than 500 users from community groups. (MRC, 2005b)

Water Utilization Program (WUP) 2000 ->

- The program aims to establish effective mechanisms to improve water resources management in the basin while promoting ecological balance.

- WUP included the creation of an integrated knowledge base, provision of data and decision support and a comprehensive hydrological modelling package.
 - The work of the program has included the use of several participatory methods, training and capacity-building methods. (MRCS/WUP-FIN, 2007)

All the above-mentioned sectors and cross-cutting programs support the Basin Development Program (BDP) by forming a broad information base and offering capacity building on the related issues in the region. The BDP also aims to achieve participatory planning and an effective IWRM process across the Lower Mekong Basin.

Basin Development Program (BDP) 2002 ->

- BDP is the core program of the commission.
- The program attempts to identify and prioritize development projects that bring the best and most equitable benefits to the people of the Lower Mekong Basin.
- BDP has changed during the last years. Instead of addressing individual development sectors such as agriculture, fishing and hydropower, the program is currently focusing on cross-cutting themes including environmental protection, human resources and poverty reduction.
 - The programme aims to improve participatory planning in the region.
 - Prior to the latest sub-area approach, the participatory approach in the program was limited.
 - Today, the participation plan of different stakeholders and a related mechanism to secure adequate public inputs is under process.

- The BDP phase two (2006-2010) has included consultations with various stakeholders such as civil society organizations, the private sector, donor agencies, policy research institutions, universities, research and advocacy networks and the media.
- The regional consultation in 2008, for instance, included a diverse set of stakeholders. (Badenoch, 2002; MRC, 2003a; 2005e; MRCS, 2003a-c; Mehtonen et al., 2008)

6.3 SOCIALLY JUST DEVELOPMENT IN THE FUTURE

There are multiple regional organizations working in the Mekong Region. These institutions, however, have their own narrow agendas and priorities (Sokhem and Sunada, 2006). The varying interests within and between the organizations as well as the countries have undermined the motivation for cooperation and the mutual gains seem to be limited (Ratner, 2003). Hence, there is currently no institution that has capabilities or willingness to holistically analyze and manage the region's challenges and to engage related stakeholders.

The region will experience a rapid development in the next years with long-lasting and extensive impacts on its economy and people. The need for a regional institution with a broad perspective including all the diverse aspects of sustainability is accordingly enormous. This institution should, besides the economic, social and environmental development, have a deep understanding of human-ecology dynamics, cause-effect relationships, local conditions and the different perspectives of the region's countries (Badenoch, 2002). The MRC addresses socially just development and poverty reduction in the Mekong Basin. What are the capabilities of the commission to improve regional cooperation and to enhance social sustainability?

In recent years, the commission has become sidelined from regional decision-making and the organization has had problems in finding its position

in the regional co-operation scene. There have also been problems within the organization in getting support for the social aspects. As a consequence, the programs of the commission have not for many years included real participatory approaches or social analyses, although these actions have been proposed. Today MRC is exploring a new direction for its work by identifying the aspects that are needed to fulfil its strategic goals and find its role among the regional actors.

MRC lays out great expectations for the adopted IWRM process. Enhancing this process may be something that is needed in the region; an institution that makes regional cooperation, stakeholder dialogue and empowerment of civil society achievable. Bringing the regional actors with their own participatory approaches and local level contacts together also supports the overall local knowledge in regional decision-making. The new direction of MRC also shows signs that the competition between different agendas within the organization is over, and that there is a common willingness to adopt socially just development. The new strategic plan is not, however, the whole truth and a great deal of changes need to happen in the future. The MRC needs to greatly change its development-focused working patterns and attitudes to be able to fulfil the new organizational goals, get tangible results and have a real impact on the lives of the people. In addition, the question arises whether the commission presently is in a position, to implement an effective IWRM process in the region or is the wave already gone with stakeholder dialogue opportunities (Hirsch et al., 2006).

The work of MRC has been accused of too narrow focus on sustainability, whereas the economic development has been high on the agenda. Consequently, doubts have been raised about the new agenda, particularly among the NGOs (Woods, 2003). Many have claimed that in reality this statement hides an even more development-focused trend than the previous agendas (Robertson, 2006). Given that the commission aims to achieve poverty reduction through a continuation of the present economic growth, admitting, however, that

this growth has increased inequality in the region, these doubts may be justified.

The commission recognizes the hydropower potential and construction as fundamental components of the member countries' policies to enhance economic growth and eliminate poverty (Bird, 2008). This is a controversial statement given the aim of achieving poverty reduction, since these plans may have negative effects particularly on the poorest residents of the region. Together with the fact that presently many of the decisions on hydropower development have been taken behind closed doors and without meaningful public consultation, this announcement is doubtful (Middleton, 2008). The positive sign, on the other hand, is that since the hydropower development is increasing in the region, the MRC will support the dialogues related to the development through the IWRM process and stakeholder participation, such as in the hydropower meeting in September 2008. There is, however, a great danger that the local people are not represented well enough in these consultations, even if there is a plethora of stakeholders present.

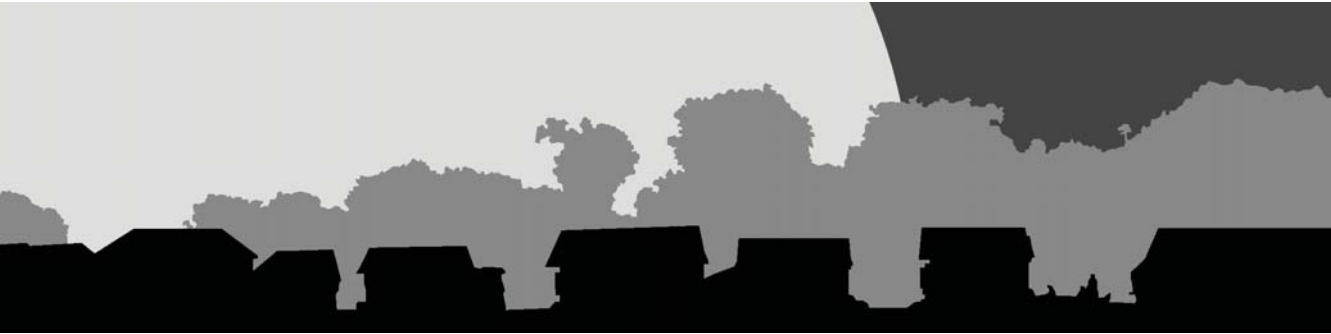
The participation approach has been declared important for the work of MRC already for many years, but an evident mismatch has existed between the approach on paper and the contribution of civil society in reality. In the present organization structure the input of civil society is taken up by the National Committees. The local communities are, however, very far from the NMCs and the grass root development proposals have not been heard. In addition, the member countries also differ in terms of public empowerment, which has an influence on the volume of the public voice. In the new strategic plan, the commission will nonetheless increase education and awareness-raising to foster stakeholder participation in line with its IWRM strategy and support the roles of the NMCs (MRC, 2006).

Even though lately a large number of new participatory approaches have been implemented through the programs of MRC, there still is a great danger that the low stakeholder participation

especially in the early implementation phases of the programs, has put the long-term programs such as the Irrigation, Agriculture and Forestry Program and the Fisheries Program on weak soil. In view of the fact that these programs have started without public participation, the question arises whether the later-added participatory approaches can reshape the programs to address the local concerns and thus achieve comprehensive poverty alleviation. MRC has a large number of programs, many of which are trying to involve the public and increase civil society input. This flood of different activities might confuse the local people and undermine their trust in the possibilities to make their opinions heard and recognized in the policy development. There is also a great danger that the programs mentioned in the new strategic plan are still too diverse and narrow in scope, hence destroying the ground of the commission to achieve its targets for sustainable and integrated development.

Much of the future development depends on the Basin Development Plan and its achievements in the IWRM process and participatory development. In order to succeed in participatory development, there remains a variety of open questions to be answered in the approach of the commission:

- How do the participatory processes of the commission utilize the present forms of decentralization such as commune councils and development committees that are set up to support the local level input as well as the other already existing local arrangements?
- Since it is commonly known that capacity building is needed in the region especially among the ministries, NMCs and civil society, the Integrated Capacity Building Program of MRC is highly important for the region's development. How this program can influence the sector programs of MRC and reshape their goals to support the real challenges of the basin and support the grass root organizations is yet to be seen.
- BDP aims to increase public participation in civil society organizations. In reality the voices of the region's civil society are low and thus the local people are often represented by NGOs and academics. As a result, this hand on information does not always meet the grass root opinions of poor local farmers, fishermen and traders. Thus, how will the MRC support the civil society organizations of the region and be able to hear the opinions of the poor?
- It is stated that the water user group networks and community fisheries do not empower the poor people in the communities that generally lack control over the common pool resources such as water and fish (Middleton and Tola, 2008). Consequently, can these organizations represent the views of the local people in such a way that equal poverty reduction is achieved?



PART III: In the city

7 Phnom Penh: The city of 569 poor settlements

Phnom Penh is one of the most important destinations for migrants in Cambodia. Hence, many of the city's poor are long-term or seasonal migrants. Most of these people have moved to the city for employment or education reasons. The rural poor frequently travel for employment reasons, whereas migrants from the wealthier families are more likely to move for education opportunities.

The migrants from the poorest families are commonly seasonal. They are staying in the city to save subsistence income or capital to raise their living standards. Many of them support their families with monthly remittances. Generally, they are eager to return home. Especially the young migrants would like to study in the city but often cannot afford it. Those having a wealthier background search for better education and standard of living in Phnom Penh. They generally enjoy their stay in the city and are also planning to stay for a longer time.

Rumours are the main information source for the migrants when they are planning to move. If the migrant has relatives or friends living outside the village, it helps to decide the target of migration and offers a safety net in the new destination. The relatives/friends often help with accommodation and job searching. For those who do not know anybody in the city, the life is often harder and the standard of living lower. They also have to pay a high price for accommodation and often end up living in the poor settlements.

Low income, high living costs and remitting money for family forces many poor migrants to live in the informal settlements. These settlements do not commonly have access to piped water, proper sanitation or electricity. The lack of health care and education and the polluted environment and water pose a tremendous threat to the poor dwellers and reduce their ability to work and earn money. The informality of housing also makes them invisible to the decision-making and development bodies

and formal employment of the city. The joint impact of the elements creating poverty leads to a vicious circle, where the poor inhabitants become even poorer.

To give room to the construction boom taking place in the city and to tackle the informal settlements, the Municipality of Phnom Penh has resettled/evicted many of the inhabitants of the poor settlements from the city centre. These relocations have not been well planned and they have ignored the participation of the poor. The relocation sites have additionally been located in the poor outer fringe of the city where the infrastructure and work opportunities are already reduced e.g. Khmuonh, Phnom Penh Thmey (in Ruessei Kaev, Trapeang Krasang and Prey Sor (in Dangkao).

All these relocation communes are considered poor in this study, and they have a poor infrastructure and low level of education. Without adequate housing, infrastructure, education and working opportunities, the poor cannot survive in these relocation sites. Many of them have had to choose between two unacceptable evils; to move back to the city, find new work, or settle for even lower living standards. These in many ways unsuccessful relocations have thus increased poverty, social exclusion and insecurity among the relocated people and in the relocation communes, and further deepened poverty in Phnom Penh.

7.1 MIGRATION AND URBAN POVERTY

Phnom Penh has been a dominant pole of attraction for migrants for a long time. Prior to the Khmer Rouge Regime, for instance, more than 73 percent of the city's population was long-term migrants. A study conducted in 1962 shows that the majority of bicycle taxi-drivers were seasonal migrants from the provinces around Phnom Penh, e.g. Kandal, Takeo and Prey Veang (Goulin, 1996). Since the turbulent period of the 1970s, the city has continued to allure migrants. For example,

in 1997 the number of seasonal migrants among the porters and bicycle taxi-drivers in the city was again 75 percent and 85 percent, respectively. By 1998, these percentages had already risen to 97 percent (OXFAM, 2000). Today, many of the poor living in Phnom Penh are originally long-term or seasonal migrants from the poor villages such as the case study villages in the Tonle Sap Region (Picture 13; Figure 17).

Most of the migrants have moved to the city for employment or education reasons and pressed by a strong rural push. These migrants work in the garment factories, at constructions sites, in the service sector or as taxi-drivers or small-scale traders in Phnom Penh. Since 1997, the escalating garment industry alone, for instance, has offered work for around 150.000 rural migrants. Phnom Penh also attracts young educated people, who do not want work on a farm. They are able to achieve a better level of living in the city, but for a poor migrant the living standards in the urban areas can be even lower than in the rural areas (OXFAM, 2000; Heng, 2002; Rao, 2002; Heinonen, 2004).

The living expenses are commonly higher in Phnom Penh than in the rural areas. As a consequence, the migrants are not able to save as much as they have planned and they are staying

in the city for a longer period. In addition, many of them are remitting money to their homes in the rural areas. Aiming to save money, many of the migrants live in informal settlements or in shared accommodation. The living conditions in many of these settlements are difficult; people lack sanitation and access to safe water, and they suffer from polluted water and floods during the rainy season. The price of water from the private sector, for instance, is 3 to 30 times higher than that from the public sector, which greatly affects the finances of poor people. Only one-third of these poor households has access to the public drainage system and thus they are frequently affected by flooding and water-related health problems. (Heng, 2002; URC, 2002; 2003; 2004) These deficiencies have an impact on the abilities of the poor to save money and fight poverty.

Today, Phnom Penh is populated by around one-fifth of Cambodia's slum dwellers (SUPF, 2003; UN-HABITAT, 2005). Over 30 percent of the city's 1.3 million inhabitants live without formal housing and basic services (Sokhum, 2005). The number of poor settlements has increased rapidly over the last years. There were 139 informal settlements in 1997, 502 in 2000 and as many as 569 in 2003 (URC, 2002; SUPF, 2003). Most of the poor settlements have been established before

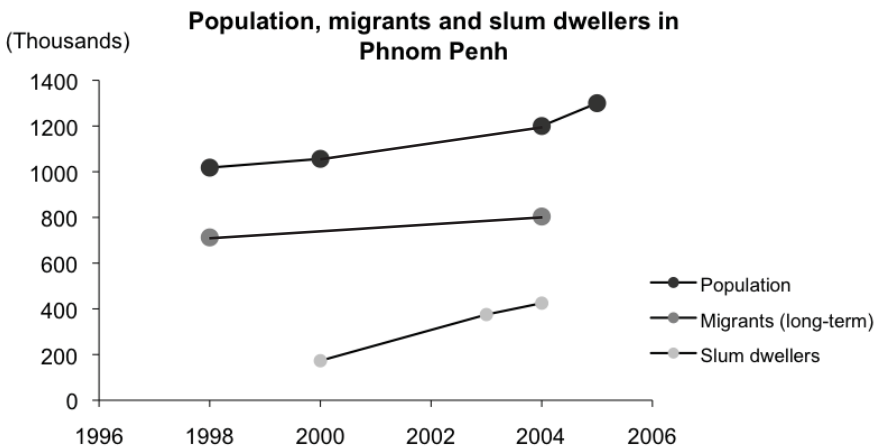


Figure 17 Increase in population, migrants (long-term) and slum dwellers in Phnom Penh (SUPF 2003; NIS, 2005b; World Bank, 2007a)

1983. The population in these settlements has, however, increased remarkably in the last 25 years (URC, 2002).

In the city centre, most of the poor settlements are located in the Tonle Bassac commune, around the Boeung Kak Lake and around the river in Stueng Meanchey. The settlements usually occupy public land (e.g. road sides, waterways, railway tracks, riverbanks, canals and lakes) or vacant private land (e.g. empty buildings and rooftops). The size of the poor settlements differs greatly. In 1999, there were: 125 settlements with less than 10 families, 163 with 10 to 50 families, 89 with 50 to 100 families, 65 with 100 to 300 families and 30 big settlements with more than 300 families (URC, 2002; Sophy, 2002).

7.2 CASE STUDY: MIGRANTS IN PHNOM PENH

This chapter presents a case study of young migrants living in Phnom Penh. The aim is to scrutinize why they migrated, how the migration changed their living standard and what their future plans are. The quotations presented reveal the views of the participants. More information about the focus group discussions conducted and the methods used can be found in Chapter 4.2.

7.2.1 Reasons behind migration

There were two dominant reasons behind migration among the participants: low standard of living and employment as well as education. Most of the participants had moved to Phnom Penh because they had relatives or friends living there, or they had heard something good about its employment or educational opportunities.

Low standard of living and employment

- The migrants from poor families said that the low living standards and unemployment were the major reasons behind their migration.
- Even though the majority of migrants moved to Phnom Penh for education reasons, better part-time employment possibilities in the city

had a major role behind migration by making higher education possible.

“The standard of living (in our home village) was so low that many people suffered from food shortage. The only choice was to leave our families and migrate to Phnom Penh to earn money for ourselves as well as for our families.” (Female migrants from Takeo)

“In Phnom Penh we are able to find better part-time employment and thus afford the school payments.” (Male migrant who moved after education)

Education

- Four out of six migrants moved to Phnom Penh because of better education possibilities and working opportunities to be able to pay for schooling.
- In addition, all the migrants were keen to study but not all of them had money for schooling. The one that came to Phnom Penh to work, for instance, have not been able to study because they have sent money to their families and have not been able to pay for their schooling.
- The education level of the migrants moving for education reasons was significantly higher (12-16 grades) than that of those who had moved because of employment.
- Most of the migrants worked at least part time while studying. Even though some had high education and were working full time, they were not capable of paying for their studies in the most expensive universities of the city.

“The education is better in the capital city. By doing part-time work I can afford to study...but not in all the universities in the city.” (Male who moved after education)

“We cannot afford to study, even though we would like to, since we are saving money for our families... and schooling in the city is expensive.” (Two females working in the city)

Rumours

- All the participants had heard from their friends, neighbours or relatives that the capital city is a good place to find work and education.
- The majority of migrants had relatives in Phnom Penh. For them the life in the city seems to be easier because they were supported by their relatives, e.g. regarding housing, food and contacts.
- The two females who had moved because of work had not known anybody from the city. They had heard about jobs in the garment factory from their neighbours, who had been working in Phnom Penh and were thus improving the living standards of their families.
- One participant had seen a document about Phnom Penh on TV and decided to migrate based on this information.

“My aunt told me about the good schools in Phnom Penh and promised to accommodate me.” (Female studying in Phnom Penh)

“I heard from my neighbours that the work in a garment factory is very well paid and a good working place for young girls.” (Female working in a garment factory)

“I saw on TV that Phnom Penh is a very lively and modern city...” (Male working as a car driver for a foreign company)

7.2.2 Working in the city

- The two female participants were working in a garment factory. They work around eight hours a day and six days a week. These migrants complained about the demanding timetables and hazardous chemicals that they are using in their work. Additionally, they are often working overtime. Before getting the job, they had to study a month in a sewing school without payment and had to pay for it themselves.

- Three of the migrants came to Phnom Penh mainly to study. However, they had also been working part time as a translator, a Khmer language teacher, a bodyguard and a plumber. These migrants came from better-off families and did not have to send money back home. The families of these migrants were even able to financially support their studies.
- Two of the participants had already finished their studies (total 8 years) by the time of discussion and were now working full time. These migrants were satisfied with their salaries and employers, working as car drivers, secretaries and electricians for foreign and private companies. They all had reasonable working hours and did not feel overstressed.

“We are happy with the work (in a garment factory) because this way we are able to support ourselves and our families. We paid for the sewing school before getting the work, which was very expensive. Sometimes we are very busy and doing a lot of extra hours...There air inside the factory is foul and we have rash on our hands due to the chemicals we use.” (Two females working in a garment factory)

“I am very satisfied with my work. I have a good salary, reasonable working hours and free Sundays.” (Male working in a private company)

“My family can support my studies...thus I do not have to work so much and I can study as much as I want.” (Male studying and working part time)

7.2.3 Living in the city

- The two females that were working in a garment factory and the male who was studying lived in shared apartments with eight other people. They paid a rent of five dollars per month for this common room. The rooms were in poor shape; they had no electricity or piped water. They took their household water from the river and bought drinking water

from private vendors. They shared their toilet facilities with other households.

- The male who was working as a car driver in a foreign company had his own apartment with electricity, toilet and piped water. He paid 25 US\$ per month for the apartment and bought his drinking water from private vendors.
- Two of the participants were living with their relatives for free. The participants were from the better-off families and also received financial support for their education. The houses were well-served with electricity, piped water and indoor toilets.

“I only sleep in my apartment. I do not have much free time from my work, but if I do have I am out with my friends.” (Female working in a garment factory)

“Housing is very expensive and poor. I also have to pay a lot of money for water and food”. (Female working in a garment factory)

“I pay a lot for my apartment, water and electricity, but I have a good income. “ (Male working as a car driver in a foreign company)

7.2.4 Future plans

- The two participants who were working in a garment factory and had a low level of education were not planning to stay in Phnom Penh. They intend to work in the city until their families have been able to raise their standard of living. On return to their home villages, they are planning to start their own businesses. They did not think that they would be able to find a good job, start their own business or buy an apartment in Phnom Penh, because they lack a good education and initial capital. These participants also preferred to live in the rural areas with their families.
- The migrants that came to the city to study wanted to live in Phnom Penh. They believed

that they were not going to find suitable work in their home villages. These migrants enjoyed their lives in the city and their standard of living was much higher than that in the rural areas.

- One participant was planning to move abroad for a higher income and living standard.

“I want to go back to my family and start a business.” (Female working in a garment factory)

“I am too highly educated to find work in my home village... so I would like to live in Phnom Penh.” (Male working in a private company)

“I would like to move to Malaysia because of the western lifestyle and very high salaries.” (Female studying in Phnom Penh)

7.3 FACTORS BEHIND URBAN POVERTY

7.3.1 Income

In Phnom Penh, the monthly household income is on average 1.140 million riels (285\$), which is significantly higher than in the rest of the country (MOP, 2006). There is, however, a great variation in income distribution among the citizens; the salaries of skilled employees vary from 3 to 4 dollars per day, and those of manual labourers from 1.2 to 1.5 dollars, while the salaries of the marginal groups are less than 1 dollar per day (Deutsch, 1997; World Bank, 2006a). This indicates that especially the unskilled workers, in other words the poor, have remarkably lower monthly income than the average of the city.

There are not many public sector jobs available, and the income offered by this sector is also very low (e.g. ministries and local private companies around 20-30 US\$ per month). The public sector employees cannot survive on such low earnings, and thus it is common that they have secondary and tertiary jobs in the informal sector (Deutsch, 1997).

The small-scale businesses in the informal sector offer the principal source of income to many families in Phnom Penh. As a result of poor working conditions and low income levels, urban poverty and informal employment are closely connected (Sethuraman, 1997; Ishengoma & Kappel, 2006). The informal economy is the most important employer for the poor inhabitants of Phnom Penh. At present, 80 percent of the city's 400.000 slum dwellers are employed in the informal economy (SUPF, 2003; URC, 2004). Poor people are often forced to work in the informal economy because of lack of capital and skills, or because of gender or ethnicity (Etherington & Simon, 1996). The informal status means a greater likelihood of income variability, decline, and insecurity. The poor depend upon casual labour jobs, which are very variable in terms of pay, thus making it hard for them to save money (Trebilcock, 2005; World Bank, 2006a).

Initial capital, gender, domicile, education and contacts have an influence on the capabilities of informal employees to survive in their jobs. Thus, the rural migrants often tend to fall into the lowest category of the sector (Trebilcock, 2005). They tend to have a low social status in the city and, as a result, have problems in making use of contacts and informal credit systems. This is also seen in Phnom Penh, where rural migrants often end up working as low-paid workers e.g., bicycle taxi-drivers, temporary labourers or waste pickers, whereas poor urban dwellers more often work in the service sector or as street vendors (Etherington and Simon, 1996; Amin, 2002).

7.3.2 Education

The majority of the population in Phnom Penh have attained at least the lowest levels of education; only less than one percent has not attained any type of education. Almost a third of the population has completed a primary level of education, and compared to the average in the country, the percent of inhabitants with secondary education is also high. Almost 30 percent of the population in Phnom Penh has a secondary or higher education (NIS, 2005b).

In general, the city centre is populated by the highest percentage of people with secondary or higher education: around 10 to 30 percent of all inhabitants. The population with a secondary education is significantly higher, for instance, in Mitta Kheap, Boeng Prolit, Chey Chumneah, Chakto Muk and Boeng Keng Kang Muoy (NIS, 2000b). In contrast, the percentage on the outskirts of Phnom Penh drops notably to less than five percent. In communes such as Kouk Roka, Krang Thong, Trapeang Krasan and Sak Sampov only one percent of the population has higher education (NIS, 2000b). These are also communities where poverty is deepest and many of the relocation projects have taken place.

The above-mentioned percentages do not take into account the population living in the informal settlements. Very often these inhabitants are originally poor rural dwellers with a low level of education. They are living in informal settlements both in the city centre and the outskirts, and thus influence the above-mentioned numbers. Commonly these people have barely finished elementary schools (CDRI, 2007a). The lack of basic education and vocational training and, on the other hand, illiteracy and lack of arithmetic skills hamper the abilities of these dwellers to start businesses or get formal work. Many of them would also like to study or educate their children, but usually cannot afford this.

7.3.3 Health, housing and water services

Many families in Phnom Penh, especially in the poor settlements, need the main municipal services such as safe drinking water, sanitation, drainage and electricity. These poor living conditions have an impact on the physical and mental health of these dwellers, and undermine their ability to earn and cope with poverty (UNFPA, 2000; Deutsch, 1997). Deficient infrastructure, especially the absence of piped water, sanitation and drainage, poses a huge threat to the health of inhabitants in these settlements. During the rainy seasons the stagnant water in the streets and dikes along with poor sanitation is the main source of bacteria, mosquitoes and worms. Diarrhoea, vomiting,

acute respiratory diseases and dengue fever are thus common. These sicknesses decrease the dwellers' working hours and income. In addition, the cost of health care and medicine takes a great share of their monthly income (URC, 2002).

The infrastructure of Phnom Penh was badly damaged in the Khmer Rouge period and was in poor shape for many years. Lately, the city has initiated multiple projects focusing on infrastructure improvement. The World Bank, the Asian Development Bank and several bi-lateral donors have been supporting the construction works and many foreign organizations are involved in infrastructure planning. There are many positive examples of successful commune infrastructure projects related to roads and drainage. Most of the city's poor settlements do not, however, have land titles, a fact that has held back improvements in the municipal services. Besides the insecure land tenure, the high costs of house construction materials have harmed the upgrading of these settlements. Most of the poor people live in houses made of wood, bamboo or leaves. Since the houses are closely packed and the materials are highly flammable, this poses a great threat of fire (Deutsch, 1997).

Even though the heart of Phnom Penh is served with good-quality piped water, the three outer districts still have many deficiencies in access to safe drinking water. These are the districts where most of the poor communities are located, now and in the future. Only around one-third of the communities in these districts has access to piped water. As a result, people exploit the secondary water sources e.g. private vendors, ground and surface water. However, these water sources often have problems in quality, regularity, reliability and cost-efficiency. The private services are not regulated and they are very costly, whereas the surface and groundwater sources contain pathogens, heavy metals and other chemicals, and are in the risk of drying out (Heinonen, 2005; Heinonen, 2008a).

In order to deal with the problems mentioned above, the Phnom Penh Water Supply Authority

(PPWSA) has plans to expand its piped water coverage into the surrounding districts with priority given to poor communities (ADB, 2007a). The new water treatment plants are to be finalized in 2008 and 2009. The piped water service area will expand towards the privately served outskirt areas of Phnom Penh (Chann, 2008). However, this development alone is not able to reach all the households on the outskirts of the city; the population is expected to double in the next 25 years and most of this growth will take place in the poor settlements of the city, particularly on the outskirt areas (Heinonen, 2008a).

In addition to population growth, the rapid development of the city has also created other problems. The ad-hoc development approach has held up the development of water supplies, particularly in the poor settlements. The communities are evicted from the city centre to locations with poor access to water supplies, infrastructure and employment. These weakly planned evictions and relocations have created new problems and raised the number of people without access to safe water (STT, 2007; Heinonen, 2008b).

7.3.4 Housing security

It is estimated that 75 percent of the flats and slum houses in Phnom Penh have no land title (Sophy, 2002). Land security is consequently one of the key elements in human settlement development of the city. Due to the increasing land demand for investments and development purposes, the pressures to resettle and evict informal communities from the city centre of Phnom Penh have become high (Cropley, 2008). The municipality of Phnom Penh, however, does not have a resettlement policy, land banking system for development purposes, or coherent mechanisms for stakeholder participation, and as a consequence, relocations have led to many negative social impacts (Sophy, 2002; Khemro and Payne, 2004). The relocations of the poor settlements have given place to city development, housing construction, commerce and public infrastructure improvements but they have often

been economically and socially disastrous for the poor dwellers (Khemro and Payne, 2004).

The resettlement of poor settlements from the city by the Municipality of Phnom Penh started already in 1991. The task is not simple and the authorities have faced many problems (URC, 2002). Most of the relocation sites have been on the outskirts of Phnom Penh without proper housing, water supply, sanitation or employment opportunities. Moreover it is common that the relocations have been conducted without participation of the relocated dwellers. They might have been informed about the new relocation site and the practicalities related to the relocation, but even this has not always been the case (COHRE, 2009) (Picture 15).

Studies of the Urban Resource Centre (1998) have revealed many negative aspects of the resettlements: the livelihood and income of the inhabitants has declined, people have to switch jobs, some were left unemployed, families suffered from low infrastructure and flooding, and the need for people to commute increased. Due to these problems, many of the families have sold their

land and moved back to the city centre. In the few successful relocations, the infrastructure has been adequate and new employment has been located nearby (Heng, 2002; URC, 2002).

Many of the poor settlements in the city centre have been relocated to the city outskirts. By 2006, 15.831 families from 43 communes have been relocated to 41 relocation sites. The Dankao district (Prey Veang, Prey Sor, Trapeang Krasang and Krang Thnong communes) and the Ruessei Kaev district (Phnom Penh Thmey, Khmuonh, Svay Pa) have been the most common relocation sites (URC, 2002; STT, 2007).

In 2003, over 60 percent of the previous low-income dwellings in the city centre were located to the semi-rural outskirts (Crosbie, 2004). As a result, the city centre has now far fewer poor than the newly created poor settlements on the outskirts (e.g. the Dangkao and Russei Kaev districts) (URC, 2002; ACHR, 2006). Overall, it is estimated that more than 70.000 dwellers continue to live under threat of eviction in Phnom Penh (COHRE, 2009). It is estimated that by 2020, only 100.000 out of the



Picture 15 Evictions from the Tonle Bassac (Photo: Juha Sarkkula, 2002)

city's 1 million poor living will be living in the four central districts, whereas the rest will be living on the outskirts of Phnom Penh (Crosbie, 2004).

7.3.5 Informality

Most of the poor live in informal settlements. They do not have secure tenure, proper housing or public services. As a result, these people are considered non-existing in terms of city development; they do not enjoy empowerment in the decision-making structures and they have low social capital. They have no voice or representation, and therefore have little or no say in the social and economic development of the city.

Due to the informality many of these people cannot find formal jobs, products or services. Hence, the city's informal sector employs most of them. Given that they have 1) limited capital to start a business, 2) reduced access to formal and informal credit, 3) low education and know-how and 4) lack of information about how the formal sector could support them and the formal registration activities, they are often employed in the "lowest level work" of the sector as motorcycle taxi- and bicycle taxi-drivers, construction workers, electricity and water sellers, motorcycle repairers, rubbish collectors, brick workers and house servants (USG, 2003).

Phnom Penh's informal activities are not regulated. However, there are many regulations and guidelines in the places where informal workers operate (e.g. selling restrictions) and these rules create many problems for the informal workers to carry out their occupations (USG, 2003). In addition, the informal workers are often targets of harassment by the public authorities. Their work is disturbed by fines, bribes, various payments and violations. In consequence, the workers suffer from emotional stress, which affects their ability to survive in the city (Figure 18).

As the level of organization among most of the informal workers is often low, their ability to negotiate with the public authorities is poor (Monyrath, 2005). The study of CDRI (2007) showed that young migrants working in the city as cart pullers are facing many conflicts with the authorities. Hence, they see the authorities rather as part of the problem rather than part of the solution. This deep-rooted distrust makes the informal workers avoid contact with authorities and makes the authorities the last ones they contact when facing problems. Steps should therefore be taken to help participants of the informal economy to exercise their right to freedom of association and assembly. They should be encouraged to

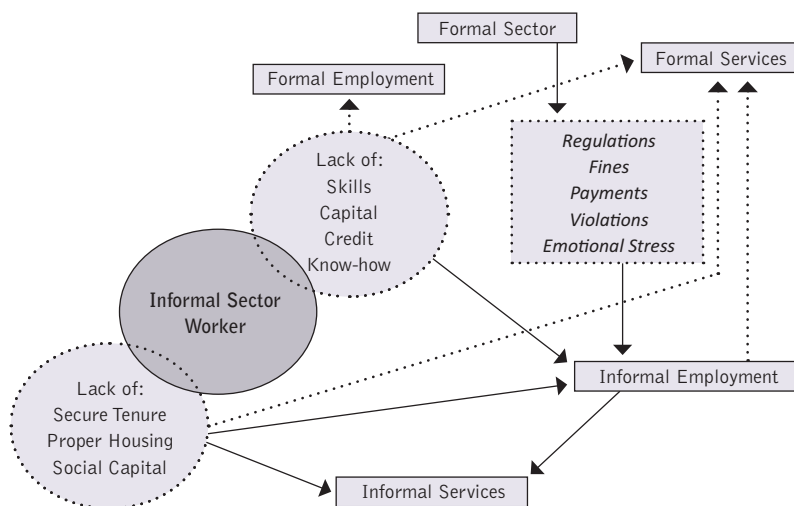


Figure 18 Informality creates many problems for the poor dwellers

take part in collective bargaining and lobbying of policymakers. They must learn how to make their voices heard so that their interests are taken into account in areas such as infrastructure, property rights, taxation and social security (ILO, 2006).

It is estimated that there are about 27.000 small and medium-size enterprises in the informal economy in Cambodia that have actively chosen not to register with the Ministry of Commerce (ILO, 2006). The regulation jungle drives the informal activities out of the authorized structures and, as a result, people tend to work in the informal sector. The studies of the Urban Sector Group (2003) among Phnom Penh's informal workers revealed that there are many shortcomings restricting the informal workers from joining the formal systems: 1) lack of information about registration methods, regulations and costs, 2) low benefits compared to the amount of money that is needed for registration, 3) wide opinion that small companies cannot be registered and 4) lack of information about where, when and how to register (USG, 2003).

8 Community development and participation

Cambodia's violent history provides a difficult starting point for sustainable urban development and community activism in Phnom Penh. During the Pol Pot Regime (1975-1979), the city was more or less emptied and the existing property rights were abolished (Shatkin, 1996). After the Khmer Rouge was subdued, people were allowed to return to the city and re-occupy empty buildings and land, except those reserved for government utilities. The land and houses remained state property and people settled into the city on first come first served basis (Khemro, 2000).

In 1989, the government issued a sub-decree that individuals can own private property based on the principle that whoever settled on a piece of land would automatically own it. Families needed to apply for the right through local authorities. However, many families chose not to apply for a certificate in fear of misunderstandings or a denial of one. As a result, today only a small proportion of the land transactions in the city involve certificates. Around 70 percent of the citizens in Phnom Penh consider that they own their land, but only 5 percent of them have a land certificate (Durand-Lasserve, 2007). The majority of the people residing in Phnom Penh believe that if they have occupied land without conflict or controversy for the five years prior to the Land Law in 2001, the land is legally theirs. However, there is a deep misunderstanding among the residents considering the law and its suitability for different land types, such as private and public land (Khemro, 2008).

In addition to the land tenure problems, there is a great unbalance between the interests of commercial development and the needs of the citizens (Agrawal, 2007; Porée, 2008). The pressures to upgrade the strategic land areas of the city, where the low-income settlements often are located, are high due to economic growth, liberalization of the land markets as well as land-titling programs. Consequently, the market-driven displacements of poor settlements have become common. These relocations have usually been very exclusive and residents have not had an

opportunity to participate in decision-making. As a result, the relocations have led to many negative social and economic consequences (Municipality of Phnom Penh, 1999; Durand-Lasserve, 2007; Gillison, 2008).

The war-ridden history has also influenced the strength of the communities and civil society organizations. The grass root organizations and activities had to start from scratch in the 1980s. Belief in the institutions also collapsed and is now slowly being built up again. Lately, there have, nevertheless, been clear signs of emerging and strengthening community activism. In the last fifteen years, this grass root development has been supported by the city's multiple NGOs. There have also been changes in governance in terms of giving local people room in the decision-making on issues, such as the in-situ upgrading. These improvements still face many obstacles regarding the capabilities of the community organizations as well as decision-making structures and practices of the municipality.

8.1 EMERGING ACTIVISM AMONG THE POOR COMMUNITIES

In 1992 to 1993 during the UNTAC (United Nations Transitional Authority in Cambodia) period, Cambodia saw an invasion of NGOs and aid agencies. Through their development activities these organizations introduced people-centred planning for the development work of the country. In 1992, also the Asian Coalition for Housing Rights (ACHR) started the grass root level development in order to support poor communities in participating and actively developing their communities. ACHR conducted community surveys, and founded saving groups and networks (ACHR, 2007). Two years later, the Solidarity for the Urban Poor Federation (SUPF), the key local community network, was established to further carry on community-based savings and

credit initiatives in the country (d’Cruz Celine and Satterthwaite, 2006).

In the next years the saving group idea reached a bigger scale. In 1998, the Urban Poor Development Fund (UPDF) was founded by ACHR and the Municipality of Phnom Penh. The organization provided loans and institutional support for the urban poor communities for housing construction and improvements (ACHR, 2006; 2007). UPDF was the first large-scale support system for the poor, which as such is already a great achievement in Cambodia. In addition to this process, the initiating collaboration between the different stakeholders introduced upgrading as an alternative to squatter evictions (ACHR, 2007).

UPDF was a clear progress in terms of people-centred planning. Many households benefited from the various small-scale slum-upgrading projects of the organization; from 1996 to 2001, around 6.000 households participated in the 160 small-scale upgrading projects in Phnom Penh. The overall improvements in the decision-making structures, however, continued to be small and project-based. Even though land-sharing and upgrading have become an option for city development, the poorly planned relocations continued. From 1998 to 2003, around 9.000 households were relocated from the city centre. The land was provided by the municipality or government and basic infrastructure by foreign aid agencies. The majority of these households were, however, relocated without proper participation and planning (Durand-Lasserve, 2007). These poorly planned and organized relocations led to many negative economic, social and physical consequences (ACHR, 2004). The poor results of these projects together with the pressure from the people’s organizations raised a need for a new approach. In 2002, UPDF demonstrated a comprehensive on-site upgrading in Ros Roey community, which brought upgrading to the knowledge of the wider audience (ACHR, 2007; Durand-Lasserve, 2007).

This demonstration and the several years of “groundwork” of the civil organizations in the

city changed the attitudes and there is nowadays a widespread acceptance of in-situ upgrading (ACHR, 2006). UPDF has supported physical and social upgrading in 130 communes and in 14 cities, reaching around 200 communities (Rabé, 2005; ACHR, 2006; 2007). The people’s organizations have helped poor communities come together within their communes and districts, pooling their own resources and finding their own solutions for problems of land security, basic services and access to credit (d’Cruz Celine and Satterthwaite, 2006). In 2003, the Cambodian Prime Minister announced a plan for upgrading 100 slums per year over a five-year period, thus covering almost all the city’s existing slum settlements either by land-sharing or secure and planned relocations (those settlements that have occupied state-owned public land or are not included in the planned civic projects) (Rabé, 2005; Durand-Lasserve, 2007).

This policy included four land-sharing pilot projects in Borei Keila (grounds of a former sports complex, north of the Olympic stadium ~2.000 families), Dey Krahom (near the Bassac riverfront ~ 1.450 families) and Santhiheap and Roteh Ploeung (Railway A and B, two settlements near the main railway depot ~ 450 families) (ACHR, 2006). All these communities were located on state-owned private land, which may be upgraded under certain circumstances. As forerunners of city-wide upgrading and sharing land between the dwellers and private companies, the Council of Ministers authorized the municipality of Phnom Penh to prepare four “social land concessions” for the communities living on these sites (Rabé, 2005; COHRE, 2009).

8.2 LOOKING FOR A COUNTERPART - MISSING POLICIES

The very welcome land tenure announcement of the Prime Minister, which raised great hopes and expectations, has so far achieved very limited results. Even though the pilot projects were supposed to be model projects of inclusive urban development, they have faced several problems during their implementation related to poor planning, cooperation and participation as

well as corruption and land speculation (Porée, 2008). None of the four in-situ development projects initially based on land sharing have been completed as intended. The land-sharing approach has further been changed into “interest sharing” between the different stakeholders. Since none of the stakeholders - community representatives, public authorities or investors – have been willing to compromise in their expectations, the negotiations have taken longer than expected and currently are in many ways deadlocked (Rabé, 2005). Economic benefits have also taken a priority over social concerns (Durand-Lasserve, 2007; Gillison, 2008). Moreover, the forced evictions e.g. in Dey Krahorom have caused a deep distrust in the local people towards the reliability of the announcement (Human Rights Watch, 2006; Porée, 2008; COHRE, 2009).

There are many reasons why the upgrading process has not become a streamlined practice in Phnom Penh:

- The Municipality of Phnom Penh has limited competence to address urban poverty. The Urban Poverty Reduction Unit (UPRU) is very small and suffers from a lack of resources in terms of personnel and funds. Lately the unit has been working closely with two projects: the Partnership for Urban Poverty Reduction Program (PURP) and the Japanese Fund for Poverty Reduction (JFPR). Both of these projects, supported by UN-HABITAT, ADB and Japan, have supported community-based infrastructure development and community activism. However, they have been project-based and thus have not led to broader policy creation (Municipality of Phnom Penh, 2007a; b).
- The UPDF does not have enough funding, staff and skills to act as effectively as it could in order to have an influence on the procedures of the municipality.
- The city’s NGOs have a limited capacity to support communities and facilitate dialogues between the different stakeholders, particularly the private sector. The NGOs such as Sahnakum Teang Tnaut, the Solidarity for Urban Poor Federation, COHRE and the Housing Rights Task Force are working hard to mediate the discussions with the stakeholders. However, they do not have effective mechanisms to facilitate the discussion and to advocate the rights of people on the upper level of decision making.
- The absence of an objective third party intermediary to facilitate the discussions with interest in an agreeable and just outcome as well as the strong expectations of the stakeholders (e.g. dwellers, private companies) have decreased the cooperation and participation of the local people in the development projects (Rabé, 2005).
- There is a great lack of policies to solve the housing and land tenure problems in Cambodia. The policies to address housing issues are not implemented properly or remain at the draft stage as the National Housing Policy (Khemro, 2008). In addition, there are misunderstandings among the citizens related to the current laws.
- The sub-decree No.19 on Land for Social Land Concessions (2003) and other related legal instructions and documents aim to transfer land parcels to landless people and households that have been relocated due to public infrastructure developments (Khemro, 2008). The implementation of this concession, however, is hampered due to the lack of a public land bank for these purposes. Particularly in the urban areas, it is difficult to find free and suitable land that could also serve the rights of the evicted households (Durand-Lasserve, 2007; Agrawal, 2007; Khemro, 2008).
- Many of the poor dwellers are uncertain about their land tenure due to the varying interpretations of the Land Law. According to the Ministry of Land Management, the land suitable for social concession needs to

be in accordance with articles of the Land Law. If the area has been occupied without approval, the community does not have a right to apply for concession. Thus, many of the poor households that are living in the poor settlements cannot benefit from this program and it thus cannot be used in the relocation processes (Khemro, 2008).

8.3 CASE STUDY: COMMUNITY ACTIVISM AT THE GRASS ROOT LEVEL

In order to understand how the poor people in Phnom Penh observe the institutional setting of community development and their capabilities to enhance the development, we carried out two runs of participatory studies in the five poor communities of the city:

- In January 2005, five one-day participatory studies covering a total of hundred community dwellers took place in the study communities. The studies gathered information about the communities, and the present changes related to migration, poverty, infrastructure, and land tenure.
- In January 2008, five one-day focus group discussions involving twenty participants were conducted in the study communities. These discussions addressed:
 - community organizations and their role in the communities
 - dwellers' level of involvement in city development
 - awareness and opinions about the initiatives that the city has to upgrade the poor settlements
 - possibilities of the dwellers to develop their own communes
- An additional focus group discussion with four dwellers was conducted in the Dey Krahom Community in March 2008. The dwellers of Dey Krahom were violently evicted in January 2009. Since the author's studies were conducted before this event, the author quotes

the reports of the Centre on Housing Rights and Evictions (COHRE) and the United Nations Office of the High Commissioner for Human Rights in Cambodia (UNHR) regarding the eviction and its impacts.

More information about the study methods and the study sites is found in Chapter 4.

8.3.1 Study communities

The information from the five study communities - Dey Krahom, 101 Community, Prek Taroth, Kob Kong and Trapeang Chork - was analyzed according to their location: city centre and outskirts (Picture 6).

City centre - Dey Krahom and 101 Community

- The communities are located on state land in the city centre.
- The dwellers of these settlements are working in the informal sector as traders, motorcycle-taxi drivers, paid labourers and waiters.
- Their monthly earnings are higher than in the outskirt communities (Table 4). However, the dwellers feel that in recent years poverty has deepened, because the living costs have increased and earnings decreased.
- Both of these communities have faced eviction pressures.
- In 2006, 750 families were evicted from Dey Krahom with insufficient compensations. The rest of the community (170 families) lived under pressure of waiting for the results of the negotiations regarding upgrading and compensations. In January 2009, the rest of the families were evicted violently (COHRE, 2009; UNHR, 2009) (see Chapter 7.3.3. for more information).
- The Boung Kak Lake area, where the 101 Community is located, will be reconstructed within the next years. There is a great possibility that the community will be evicted or resettled (Amnesty, 2008).

Outskirts of the city - Prek Taroth, Kob Kong and Trapeang Chork

- The communities are located on their own land (since the 1980s).
 - The dwellers of the community have a land certificate issued by the land administration. They feel safe about their land tenure and are eager to develop the community.
- The livelihood structure of the dwellers is closely associated with agriculture. Many of the dwellers cultivate rice, fish or raise cattle.
 - During the last years, the employment structure in the communities has changed and nowadays people are more commonly working as traders, motorcycle taxi drivers or paid labourers.
 - Many of the dwellers have been able to gain subsistence income from different sources such as renting rooms to migrants, who have come to work in the factories (Kob Kong), working as paid labourers in the nearby factories (Kob Kong, Trapeang Chork), selling agricultural land to companies (Prek Taroth, Trapeang Chork) and higher rice yields (Trapeang Chork).
- Even though the average income is smaller than in the communities of the city centre, the dwellers feel that their poverty has decreased in the recent years (Table 4).

8.3.2 Organizations, networks and opinions

The study communities on the city's outskirts are well organized. They have a community chief appointed by the commune, and an elected Community Development Committee (CDC) with a voted chief. These organizations, and especially these two chiefs, have led the development of the communities by organizing annual planning sessions, attracting investors and finding ways to collaborate with authorities. All the study communities also have a saving group supported by the Partnership for Urban Poverty Reduction Program (PURP).

In recent years these communities have been able to reduce poverty and conduct many development projects, such as the construction of new roads (Kob Kong, Trapeang Chork), drainage systems (Kob Kong, Trapeang Chork) and water filtrations systems (Trapeang Chork). The communities have also been able to attract external funding from the government and NGOs for these development projects. They are additionally linked to other communities through shared development projects, such as a school (Trapeang Chork), a health care centre (Prek Taroth) and piped water (Kob Kong).

The dwellers on the outskirts believe in the recently established Commune Development Committees and the impact of their development projects. They are eager to work with the district level in order to improve their communities, get funding as well as to realize integrated planning and development projects at the commune level.

“Through the Commune Development Committees we can get funding from the district level and increase collaboration with other communities in our commune.”
(Male in Kob Kong)

The situation is very different in the communities of the city centre, which are under eviction pressures. Dey Krahorm has already experienced an eviction. The dwellers of 101 Community have heard rumours that in the next two years the land they are living on will be developed and the community relocated. The dwellers believe that they will not get advice or help from the municipality or Commune Councils in this development process. The eviction and the fear of resettlement have affected these communities and their activity. Before, the communities were organized similarly to those on the outskirts but the evictions, conflicts and pressures have destroyed these organizations and broken the trust in the communities.

As a result, the communities in the city centre are nowadays less organized than the communities on the outskirts. They also feel very frustrated with the authorities. Even though the Community Development Committee of 101, for instance, has

previously been actively developing the commune, its role has diminished. Consequently there are no development plans or projects under way. The dwellers revealed that they feel their community is temporary and there is no point in developing it any further. The situation in Dey Krahorn has also been very unstable and people have long been afraid of further evictions. Due to the corruption and betrayal by the previous chiefs that led to the evictions, there is no CDC or chief in the community, and each family has a member in the development meetings of the community. When a community is evicted and the dwellers are living in various locations, the community structure is broken (COHRE, 2009) (see Chapter 7.3.3 for more information).

“We do not have any plans to develop our community anymore... even though we wanted to have a better drainage system... We will be relocated and now we need to put all our efforts in fighting back.” (Male in 101 Community)

“No one will help us with this (resettlement/ eviction) process ... or maybe we can find a good NGO.” (Female in 101 Community)

“We do not have any chief now... Now, we all participate in the development meetings so that no one can betray us anymore.” (Male in Dey Krahorn)

The dwellers in Dey Krahorn and 101 Community are, however, committed to claiming a proper compensation for their relocation given that the communities have been located on the land already since the 1980s (COHRE, 2009). The dwellers referred to the Land Law and the land tenure announcement of the Prime Minister, who agreed to provide secure tenure for the slum communities of the city. Dey Krahorn, in particular, was mentioned in this statement. However, the dwellers stated that they need support to be able to fight for their rights and get fair relocation compensations. They also thought that the relocations to the suburban areas would mean higher unemployment rates, more school dropouts and even poorer infrastructure.

This statement was supported by all of the study communities, including the ones located on the outskirts. On the other hand, the dwellers do not want to live in apartment blocks but would prefer to stay in their traditional houses.

All the interviewed participants in the study communities did not believe in the real impact of the statement of the Prime Minister. They thought that this announcement was given just to support the party before the elections. According to the dwellers, the real impacts of the policy are limited due to poorly progressing negotiations, low funding from the municipality and the memory of previous, unsuccessful relocations. Although the policy has not been effective, the dwellers stated that at least now they have something concrete to quote when claiming for compensations.

“We do not believe in the statement of Hun Sen, but we can use this statement to raise our compensations. We are mentioned in this statement and we were promised to be upgraded.” (Female in Dey Krahorn)

“It (land tenure statement) is said just to raise votes before elections.” (Female in Dey Krahorn)

“If the communities are relocated from the city centre, the people will be poorer. They cannot find work here.” (Male in Trapeang Chork)

All of the interviewed dwellers had heard about the Social Land Concession and the National Housing Policy draft. However, they all felt strongly that the possibilities of these policies to reach poor dwellers were limited. The dwellers in the city communities, who do not own land and have a fear of eviction, would like to see the land concession mechanism working. Yet, they see that the impacts of this mechanism are hindered by nepotism and corruption and will not benefit them in reality.

“Social Land Concession is not for us because we are poor and our land is not considered suitable for applying for the concession.” (Male in 101 Community)

“We cannot apply for Social Land Concession, since we already own our land... I do not think that it helps in the city centre either...” (Male in Kob Kong)

8.3.3 Dey Krahorm - conflicting interests and nonexistent dialogues

The Dey Krahorm Community is located in the Bassac River area. The central location with access to infrastructure and services has made the area attractive for squatters and for various development plans (Khemro, 2000). The community is located on private state land, which has been occupied informally.

- In 2003, the Prime Minister of Cambodia announced the Land Tenure Recommendation. Dey Krahorm was one of the four squatter areas that received a social land concession right in this announcement. The dwellers received a formal letter from the municipality indicating that the community owns the land. If the area is developed the dwellers have a right to get proper compensation and contribute to the development plans.
 - The plan indicated that 3.7 hectares of the total 4.7 hectares of land in Dey Krahorm will be used for up-grading the community and the remaining 1 hectare was allocated for private development (COHRE, 2009).
- In 2004, the Municipality of Phnom Penh contacted the chief of the CDC and announced that the area will be developed. The discussions started with the municipality and a private company (7 NG Construction Co Ltd).
- In January 2005, the chief called the dwellers together and announced that the village will be in-situ upgraded by sharing the land between the dwellers and the company. The dwellers agreed to cooperate with the municipality and saw this as an opportunity to raise their standards of living. They put a fingerprint on the proposal document of upgrading.
 - Later on it turned out that the chief of the CDC, who alone represented the community in the discussions, had misled the dwellers to believe in the upgrading approach. The new plan was to relocate the community around 15 kilometres outside of Phnom Penh to the Damnak Trayeung. The villagers complained that they had never agreed with this plan. However, it was pointless to submit a complaint to the court since the signed paper evidenced that the dwellers had agreed to be relocated.
 - In December 2006, the Department of Land Management, Urbanization, Construction and Cadastral Survey illegally issued an ownership title to the private company, conferring the property rights over the Dey Krahorm land to the company (COHRE, 2009).
 - The dwellers stayed firm and demanded for proper compensations. They submitted numerous complaints disputing the validity of the contract but all of them have been rejected. They also continued negotiations with the company regarding the compensations.

“Our chief betrayed us and sold us for a fancy car and house... now we cannot do anything because we signed the paper where we said that we can move.” (Male in Dey Krahorm)

“We trusted the municipality and our chief... but now I do not trust anybody and I want to know everything that considers my community.” (Female in Dey Krahorm)
 - The company offered a compensation of 7.000 US\$ for each of the families but the dwellers refused to accept it. They complained that the real price of the land is around 90.000 US\$, since each household occupies on average 30m² and the price of the land in this centrally located area is around 3.000 US\$/m² (Associated Press, 2008). Since this claim was too high for the company and the dwellers

were not willing to move with the proposed compensation, the discussions between the community and the private company were blocked.

“The land prices are very high now in Phnom Penh... We want to have a proper compensation. If we move out from the city, we cannot continue our work and thus we need money to start all over.” (Female in Dey Krahorm)

“The company wants to take a big part of the land and build us multi-storey buildings. We want to live in our own houses, not in the flats... like we have lived before.” (Male in Dey Krahorm)

- In June 2006, the tension exploded and a part of the community was evicted to the relocation area in the Cham Chao Commune. The eviction was very aggressive. Even though the pressure was high, 170 out of 920 families managed to keep their houses and continue their life in the area. In fear of eviction, they cannot carry on with their employment because they are afraid of leaving their houses empty. This process has also demolished the community organizations and the trust in the community.

“The eviction was very aggressive and violent. My friend got a scar on her face.” (Female in Dey Krahorm)

“We really had to fight back to keep our houses.” (Male in Dey Krahorm)

- During the attack the community was supported by the local NGOs such as LICADO, while the Municipality of Phnom Penh stayed in the background.
- The support from the NGOs has continued ever since. With the assistance of the Sahmakum Teang Tnaut (STT), the dwellers

have submitted a proposal of in-situ upgrading to the company. Even though the dwellers feel that the possibilities for upgrading are limited, they hope to raise the amount of compensation with this procedure.

- The dwellers do not want to move to the relocation site, because it is far from the city. The living standards of the relocated families have decreased since proper infrastructure is missing and there are no schools, health care or jobs in close proximity. Most of the families still work in the city and due to the high commuting costs they have hardly any salary left at the end of the day. For compensation the relocated households got a small house and a plot on the outskirts of Phnom Penh as well as transportation for their belongings.

“We can only trust NGOs, not the municipality... It (municipality) wants to develop this area and let the company win.” (Female in Dey Krahorm)

“If we will be relocated, we will be poorer... this has already happened to our old neighbours, who lost their jobs or have to pay a lot of money to come to the city to work.” (Male in Dey Krahorm)

- “In January 2009 the families from the community were violently evicted by over 400 breakers from the private company, accompanied by over 300 heavily armed police officers. Officials from the Municipality of Phnom Penh were also present. Attempts were made to remove human rights observers and journalists from the area. As a result, 18 community members were injured, including five who were seriously injured. Private property was systematically destroyed during the eviction. The eviction itself took place while negotiations between the Municipality and residents about appropriate compensation for the land and housing of residents were still ongoing (COHRE, 2009; UNHR, 2009).”

8.4 SUPPORTING COMMUNITY DEVELOPMENT – THE CASE OF THAILAND

In recent years the slums in the Lower Mekong Region have grown rapidly. The present slum population of 14 million is estimated to reach 19 million by 2020. The slum population in Cambodia, for instance, will double in these next twelve years, and reach 5 million. Thailand, nevertheless, provides an exception.

The slum population in Thailand has diminished annually by 19 percent and is estimated to decrease from the 2 million in the 1990s to 7.000 by 2020 (UN-HABITAT, 2005; 2006). Over the last years, there have been substantial improvements in the lives of the slum dwellers in terms of land security and living conditions (NESDB, 2004). The percentage of population in fear of eviction in Bangkok, for example, has dropped from 70 percent in 1988 to 12 percent today (Boonyabanha, 1997; NESDB, 2004). There are several reasons behind this positive development. Even so, one very important factor is the commitment of the Thai government and top policy makers to address the problems of the slum dwellers and to prevent the creation of future slums (CODI, 2004).

Thailand has two special authorities to tackle the country's housing problems: the National Housing Authority (NHA) and the Community Organizations Development Institute (CODI). NHA focuses on low-cost housing and through the "Baan Ua Arthorn - We Care Program" aims to design, construct and sell flats at subsidized rates to lower-income applicants. CODI, on the other hand, addresses the strength of the urban poor communities and through the "Baan Mankong - Safe Tenure Program" channels government funds to infrastructure subsidies and soft housing loans for house, environment and service improvements.

These authorities focus on housing, land security and living conditions of the poor citizens (NESDB, 2004). Above all, they support communities and community networks to develop their own housing. In order to strengthen grass root activism, the programs enhance communication,

networking and partnerships between and among the key stakeholders. Even though there have been many ups and downs in the development of these holistic and people-centred programs, they now have secured the commitment of non-profit organizations and the government. The effectiveness of the programs and the commitment of different stakeholders have furthermore influenced national policies to be more supportive of the urban poor organizations and include poor citizens into the planning processes (d'Cruz Celine and Satterthwaite, 2006).

8.4.1 The rocky road to community activism

Since the 1960s, the Thai government has addressed the problems of expanding slum settlements by trying to reduce migration flows and by solving the problems at the city level (Bilsborrow, 1998; CODI, 2004). In 1973, the central government set up the National Housing Authority (NHA) to address the nationwide problems of slum settlements and find alternatives for unsuccessful evictions. Already in 1977, NHA adopted the Community Upgrading Program, which was a new attempt to bring basic services to the poor people by letting them stay in their present surroundings without eviction by using land sharing techniques (Rabé, 2005). The history of the upgrading of the poor settlements started along with this initiative. A range of slum-upgrading activities took place in Thailand varying from cost-recovery programs to subsidy models. At the beginning of the upgrading activities the dwellers had, however, relatively little to say (CODI, 2004).

At the beginning of the 1990s, the community thinking crossed over from the NGOs to the main stream (UNDP, 2003). In 1992, the Thai government set up the Urban Community Development Office (UCDO). The office was an autonomous legal entity with the status of a public organization (CODI, 2003). UCDO supported community-based organizations by providing loans, small grants, and technical support. It encouraged community organizations to network in order to negotiate more effectively with city or provincial authorities, to influence development planning and to collaborate together on common problems.

This approach decentralized the decision-making process of the housing policies by linking them more closely to individual communities (CODI, 2004).

Channelling small grants via city-based community networks to develop community infrastructure was successful. Therefore, UCDO merged with the Rural Development Fund (RDF) and formed the Community Organizations Development Institute (CODI) in 2000. This collaboration was aimed at changing the methods of the organization and to give greater responsibilities to the communities. Since then CODI has mainly acted as a facilitator of the process, while the work has been carried out by the community networks (CODI, 2003; Rabé, 2005).

The transformation in the 1990s was significant and changes were also seen in the previous urban-biased, top-down and centralized approaches of the Thai government. The previous urban-focused development had sidelined participation, the environment and equity. The 8th National Social and Economic Development Plan (1997-2001), however, brought a social and a cultural agenda into the planning process. The plan addresses social problems of the uneven economic development by promoting and strengthening the communities, providing them with an opportunity to participate in social and economic development activities, and encouraging cooperation among government agencies, the private sector and NGOs (Sookdhis, 2001; UNDP, 2003). The plan further addressed community empowerment and shifted the development concept from growth oriented to people-centred (Klangphranatara, 2001; Samphaothip, 2002).

Even though there has been a notable change at both the grass root and national level to get community activism mainstreamed, the country still faces many obstacles in implementing these approaches; local governance and the local communities need to be strengthened and institutional arrangements to participate enhanced (CODI, 2003; NESDB, 2004). This shortage is also recognized at the national level, and as a consequence the 10th National Economic and Social Development Plan (2007-2011) continues to address strong communities by improving communities through increased participation, planning and knowledge management and the strengthening and establishment of a participatory community plan for all communities (Board of Investment, 2006).

8.4.2 The Baan Mankong Program - strengthening community organizations

Baan Mankong is a housing development program based on collective experiences over the past 20 years. This program emphasizes participation of poor people in developing their own communities, while government only takes part as a supporter. The program aims to improve the living conditions and secure tenure of almost half of the existing slum settlements in the country, 300.000 households in 200 cities. These improvements are planned to be achieved by participation, community activities and dialogues between different stakeholders such as local communities, academia, NGOs and government agencies (CODI, 2004).

The program has three different mechanisms to support the communities: funds, networks and dialogues (Figure 19).

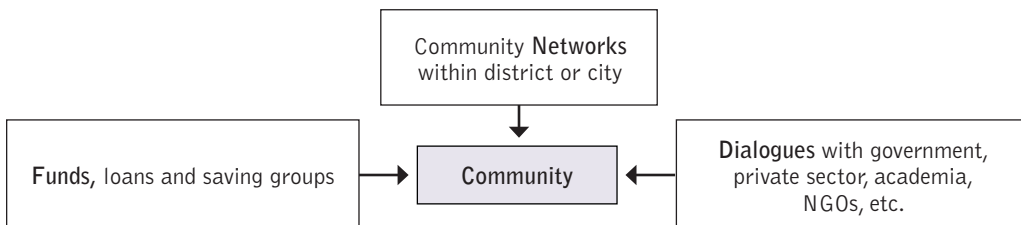


Figure 19 The Baan Mankong Program strengthens communities through funds, networks and dialogues

- Community saving is a starting point for community activism. It gives people capabilities to network, raises their self-esteem and hence their participation in the development of their own community. The loans provided by CODI will further strengthen the communities (Noppaladarom, 2006).
- Community networks are essential to communities for discussing, sharing ideas and assisting each other in the development activities as well as for creating a critical mass for negotiations (CODI, 2003).
- Facilitating and enhancing the dialogues between the different stakeholders is the most critical part of the work of CODI. The people of the city are often ready to enhance development, but the city itself is not. For this reason, the dialogues between different stakeholders are needed (Noppaladarom, 2006).

Baan Mankong has been under progress for five years and the results are very positive. The physical upgrading of the communities has accelerated improvements also in the environmental, social and economic development of the urban areas (CODI, 2004). Despite this, the work has not been easy. It has been challenged by e.g. 1) limited and uncertain funds, 2) strict building codes, which are often too expensive or impossible to fulfil in poor high density communities, 3) insecure land tenure and 4) slowly progressing negotiations with the public or private sector due to the contradicting priorities and bureaucracy (Noppaladarom, 2006).

9 Gaining access to safe water supplies through self-development

In the last fifteen years, piped water coverage in Phnom Penh has developed radically. The Phnom Penh Water Supply Authority (PPWSA) has improved the water coverage from 25 percent of the population in 1993 to 90 percent in 2006. Nowadays, the four central districts out of the seven districts in total are fully served with piped water (ADB, 2007a). This rapid development has required a profound transformation in the management culture of the authority and a substantial change in the thinking of its customers. In order to make the water infrastructure of Phnom Penh sustainable, involvement of civil society and creating long-term community development have been strong goals of the PPWSA (Cham, 2008).

The authority has supported the poor communities by providing main connections when the communities have been able to organize their own distribution and fee collection as well as by giving extra privileges to the poor through subsidized tariffs or connection fees (ADB, 2007a). PPWSA has subsidized the hook-up fee, for instance, for around 15.000 families in 123 communities (Stokstad, 2008). Thus today, a majority of the poor communities in the served central districts have piped water connections. The situation is, however, different in the three outer districts of Phnom Penh, which still have many deficiencies in access to safe drinking water. These are also the districts where most of the poor communities are and will be located.

Only around one-third of the poor communities in Phnom Penh has access to piped water, and, as a result, the inhabitants use secondary water sources such as private vendors, or ground and surface water. These water sources often have problems in quality, regularity, reliability and cost-efficiency. The private services are not regulated and they are very costly (Heinonen, 2008a). The surface and groundwater sources, on the other hand, contain pathogens, heavy metals and other chemicals, and are also prone to drying out (Heinonen, 2005). In order to deal with these problems, PPWSA has plans to expand

its piped water coverage into the surrounding districts with priority given to poor communities (ADB, 2007a). In 2006 and 2007, the PPWSA was not able to enlarge the service coverage due to the low treatment plant capacity. The new treatment plants, completed in 2008 and 2009, will change this situation and expand the piped water coverage towards the privately served outskirts areas (Cham, 2008).

The population in Phnom Penh is expected to double in the next twenty-five years and thus the pressure on the city's development, including the water sector, is high. The piped water service area, for example, needs to expand fivefold (Stokstad, 2008). Given that immigration is a major reason for population growth along with high fertility rates, most of the future growth will take place in the city's poor settlements and particularly on the outskirts (Heinonen, 2008a). Hence, the above-mentioned development of PPWSA is not alone able to reach all the communities on the outskirts. The role of the communities becomes increasingly crucial. Strong participation and activism is needed to get the communities connected to piped water.

The rapid development of the city has created additional problems. The ad-hoc development of the city hinders the development of water supplies, particularly in the poor settlements. The communities are evicted from the city centre to locations with poor access to water supplies, infrastructure and employment. These weakly planned evictions and relocations have created new problems and raised the number of people without access to safe water (STT, 2007). The relocation boom taking place in the city has also decreased the piped water service coverage, and weakened the attempts of the local community organizations to influence their own development. The dwellers in these communities have already fought for development in the city centre, and evicting or relocating these communities means that the dwellers would need to start all over again in a more difficult down-market area (Heinonen, 2008b).

9.1 WATER SUPPLIES IN THE STUDY COMMUNITIES

Based on the arguments mentioned above, the facts that water has significant connections with poverty reduction through e.g. health, income and education, and participation in water supply development has not been widely studied, this chapter examines the water sector of Phnom Penh by focusing on the grass root level. First, the chapter analyses water supplies, water use, water quality and cost as well as the recent changes in these resources in the five poor settlements of Phnom Penh. Second, the chapter examines the roles of the communities in achieving piped water and how their participation could be strengthened to meet the future needs of the city.

The information presented in this study is based on participatory studies conducted in the communities of Dey Krahorm, 101 Community, Prek Taroth, Kob Kong and Trapeang Chork. In order to identify the recent changes in the communities, two sets of studies were conducted in each community during a three-year period. The first study took place in January 2005 and the second in January 2008. The three-year gap between the studies shows us how the city's water services have progressed and what the role of the poor communities has been in this development.

- The one-day PRA studies conducted in 2005 covered in total around hundred community dwellers. The studies focused on water supplies, water use, sanitation and drinking water quality. The quality of the main drinking water supplies was also tested with a field team from the Resource Development International Cambodia. The water samples were tested in the laboratory of the organization in Kandal.
- In 2008, the focus group discussions conducted in the study communities covered in all around twenty dwellers. The discussions elicited information on recent changes in water supplies, sanitation and drainage, development plans as well as information on the community organizations and their

role in enhancing the development of the community.

- In addition, one focus group discussion with four people was carried out in Kob Kong in March 2008.
- In 2009, the Dey Krahorm community was violently evicted. Since the author's studies were conducted before this event, the author quotes the reports of the Centre on Housing Rights and Evictions (COHRE) and the United Nations Office of the High Commissioner for Human Rights in Cambodia (UNHR) regarding the eviction and its impacts.

More information about the study methods and the study sites is found in Chapter 4.

Dey Krahorm and 101 Community - Piped water, but for how long?

- Dey Krahorm and 101 Community have piped water connections. The connections were arranged with the support of the Urban Resource Centre in 2003. The Community Chiefs had an important role in this process. They brought the dwellers together and took care of distribution and fee collection. At the time of the construction, a majority of the families lacked the initial capital for a household connection and bought water from their neighbours. This situation later changed and all the households were connected to piped water.
- The average monthly use per family is around six cubic meters. Water price has increased in the last five years. In 2005 the price was 1.230 riels/m³ but in 2008 it had already risen to 1.800 riels/m³.
- In 2006, 750 families were evicted from Dey Krahorm. The relocated families do not have piped water at the Cham Chao relocation site. The price of the water they buy from private vendors is 3.000 riels/m³, almost double the price that they paid previously. In January 2009, the rest of the community was evicted

and presently a majority of these community dwellers do not have piped water connections or proper sanitation. Moreover, all the built infrastructure in the community was destroyed (COHRE, 2009).

- The dwellers in the communities usually store water in traditional jars. They keep the water in the jars for at least two hours before drinking to make the solid particles settle down. The jars are covered, but there are often deficiencies in the coverage resulting in contamination. This was also seen in the water quality tests conducted in 2005. The tests showed the presence of coliform bacteria in the containers, but not in piped water. Overall, the quality of piped water in the communities was good. No chemical or bacteriological contamination was found (Heinonen, 2005). In addition, around 90 to 95 percent of the families in the communities boil their drinking water.
- The communities have been active in the development work. All the families in the communities have access to household latrines. 101 Community has also built a drainage system with the support of PURP in 2006. Before these improvements, there was an open canal in the community and diarrhoea and dengue fever were common diseases. Since then, these sicknesses have decreased significantly. On the other hand, these health problems were still common in parts of Dey Krahorm that do not have a drainage system, and in the rainy seasons the floodwater causes the toilets to overflow. There was nonetheless a plan to improve the drainage system, but the relocation has destroyed these plans (Table 7).

More information about the situation in Dey Krahorm is found in Chapter 8.3.3.

Prek Taroth - Relying on surface water

- The 1074 dwellers of Prek Taroth use surface water from the river for household purpose and drinking. In addition, they harvest rainwater.

Since 2005, the dwellers have collectively (10 families together) bought water pumps to reduce the burden of carrying water. The average monthly water use in the community is around six cubic meters per family.

- Water quality in the river, which is the main source of water, is poor. The iron content in the water is higher (0.6 mg/l) than allowed by the Cambodian standards (0.3mg/l). Bacterial contamination was also found in both the river and container water (Heinonen, 2005).
- The water is stored in traditional jars and kept in the jar for at least half a day before drinking. This reduces the amount of solid matter and possible the iron concentration, but does not destroy bacteria. Since the coliform bacteria were present in the samples, the water should not be used without boiling. Yet, only half of the dwellers in the community boil their drinking water. As a result, diarrhoea is a common problem.
- In recent years, Prek Taroth has also been active in community development. In 2005, there were only five household latrines in the community, but in 2008 the number of household latrines has risen to 180. There are still 50 families without latrines and as a result they excrete into the river or in the fields behind their houses. Plans to build more toilets are under way, since the community is planning to sell agricultural land to private companies.
- The community is located on the river bank and has no drainage system. Thus it suffers from annual flooding. Dengue fever is common in the community.

Kob Kong - Drying wells

- For several years, Kob Kong has relied on the eleven wells located in the community, two private drilled wells and nine dug wells. In the last three years, the water tables in the community have dropped and most of the wells have dried out. The two commercial

Table 7 Information about the study communities (2008)

Community	101	Dei Krohom	Prek Taroth	Kob Kong	TrapeangChork
Location	City centre Boueng Kak II commune	City centre Tonle Bassac commune/ Cham Chao c. (relocated)	Outskirts:15 km Prek Tasek commune	Outskirts:15 km Cham Chao commune	Outskirts: 24 km Prey Veng commune
Main water supply	Piped	Piped	Surface water (river)	Private vendors (groundwater ->2006)	Surface water (pond), Private vendors
Families with piped water connection (%)	100 % (2003)	100 % (2002) (18% reloc. site)	0 %	0 %	0 %
Price of piped water (Change 2005-2008)	1,800 riels/m ³ (+46%)	1,800 riels/m ³	-	15,000 riels/m ³ (+50%)	9,330 riels/m ³ (+16%)
Price of water other than piped (Change 2005-2008)	-	3,000 riels/m ³ (relocation site)	0-6 000 riels/m ³ (pumping costs)	7,500 riels/m ³ (+50%)	5,300 riels/m ³ (+32%)
Average daily water use per person (litres)	47	40	40	80	40
Water quality	Good (Container: moderate)	Good (Container: moderate)	Low	Moderate	Moderate
Typical health problems (Change 2005-2008)	Diarrhoea, Dengue fever (Decrease)	Diarrhoea, Dengue fever (Increase)	Diarrhoea, Dengue fever (Increase)	Diarrhoea, Dengue fever (Increase)	Diarrhoea, Dengue fever (Decrease)
Households with access to sanitation (% in 2005)	100 % (26 %)	100 % (100 %)	78 % (2 %)	100 % (90 %)	84 % (25 %)
Drainage	Yes	No	No	Yes	Yes

private drill wells (90 meters) still have water and this is nowadays bought by the community dwellers.

- Since groundwater cannot be used in the community anymore, the dwellers buy water from private vendors. Caused by the higher demand, the price of water bought from private vendors has increased greatly. Since 2005, the price of surface water has risen from 5.000 riels/m³ to 7.500 riels/m³ and the price of piped water from 10.000 riels/m³ to 15.000 riels/m³.
- Due to the higher price, the average monthly water use per household has dropped from 18 to 12 cubic meters in the last three years. The dwellers have also started to optimize their water use and buy surface water for household use and piped water only for drinking purposes.
- Water quality in the drilled wells was not very good – the tests showed high fluoride, iron and chloride concentrations. Around 95 percent of the dwellers boil the water before drinking.
- The community has developed over the last years. Today, all families have toilets. The dwellers have also built a drainage canal to prevent flooding in the wet season.

Furthermore, they have plans to further improve this drainage system.

- More information about the situation in Kob Kong is found in Chapter 9.2.

Trapeang Chork – Using ponds and private vendors

- The dwellers in Trapeang Chork rely on pond water and private vendors. There are four ponds in the community and two of them are used for drinking water. In addition, the dwellers harvest rainwater. The average monthly household water consumption is around six cubic meters.
- Since 2005, the price of the water bought from private vendors has risen: surface water from 4.000 riels/m³ to 5.300 riels/m³ and piped water from 8.000 riels/m³ to 9.330 riels/m³.
- Both water sources used in the community have inadequate water quality. The pond water has a high iron concentration and bacterial contamination. The water bought from private vendors, on the other hand, has a high chloride concentration and, again, bacterial contamination. In addition, the water in the jars also had high bacterial contamination (Heinonen, 2005). All the dwellers in the community boil their drinking water before consumption, which reduces the health risks.
- Since 2005, the community has developed greatly. In 2005, there were only 30 toilets in the community, but as many as 105 in 2008. The twenty families that do not have toilets excrete in the forest or the rice fields behind the community. In 2007, a more effective drainage system was built to reduce the floods in the rainy season. These improvements may have reduced the number of dengue fever cases in the community (Table 7).

9.1.1 Ups and downs in the development

The study communities have several problems in terms of access to safe water supplies (Table 7). In the last three years, the situation has further worsened in many of the communities due to

various reasons, e.g. declining groundwater tables, increasing water prices and relocations/evictions to areas with poorer water infrastructure.

The dwellers on the outskirts of the city rely on ground and surface water sources as well as on private vendors. In the absence of piped water connections, the households in these communities also pay more for their water compared to the city centre. The price of water has risen in all of the communities. The increase has, nonetheless, been highest on the outskirts. For instance, in Kob Kong the price of piped water bought from private vendors has risen by 50 percent in the last three years (Table 7).

The quality of water in the study communities showed many deficiencies. The overall findings were associated with bacteria, fluoride and aesthetic quality of the water. Many tests conducted by the author revealed unsafe levels of bacteria, and several sources had high concentrations of fluoride. High levels of iron, chloride, total dissolved solids and water hardness were also present in many of the samples. For instance, the surface water sources of Prek Taroth have high bacteria and iron content. The groundwater used in Kob Kong has high fluoride, iron and chloride concentrations. The quality of the water sold by private vendors varies according to its source: the quality of piped water is relatively good, but surface water has quality problems, such as iron and bacteria. There were also problems in the quality of rainwater and piped water. Even so, these problems were for the most part caused by inadequate storage.

The main water-related sicknesses in the study communities are dengue fever and diarrhoea. These sicknesses are indirectly or directly connected to water quality, sanitation and drainage (Table 7). In many communities there are still families that do not boil their drinking water. For instance, only half of the families in Prek Taroth boil their drinking water before consumption, even though this community relies on surface water. This behaviour is mainly due to lack of information and motivation. The problem has been noticed in the community and the Community Development Committee

is working on the issue to raise awareness of the importance of good water quality.

In the last few years, the study communities have significantly developed their sanitation and drainage systems. Presently, three communities out of five have adequate drainage systems and the majority of families have household toilets. In the Kob Kong and 101 communities, for instance, all families now have household toilets, and the communities have built effective drainage systems. The development in sanitation and drainage is mainly due to the active Community Development Committees and the fact that the Commune Councils have been able to support these development projects.

Even though the water supply and sanitation had improved greatly in 101 and Dey Krahom, the development is not sustainable. It does not have a long-term impact on the dwellers' living standards, since the communities have been evicted or there are plans to relocate them. The efforts made will therefore only benefit the communities for a few years, and in the coming years they will again face similar problems.

9.2 CASE STUDY: ACCESS TO PIPED WATER IN KOB KONG

The following chapter focuses on Kob Kong community, which is in the process of developing community water supplies. The chapter describes the strategies and responsibilities in the community to achieve access to piped water, and illustrates the problems in community participation and management. The information presented in this chapter is drawn from the participatory studies of the last three years, but above all from the focus group discussions carried out in January and March 2008.

More information about the methods can be found in Chapter 4.2.

9.2.1 Background

The 107 families in the Kob Kong community own their agricultural land. Wet season rice cultivation, livestock breeding, factory work and trading are

common occupations in the community. The average monthly income per family is 200.000 riels (about 50 US\$). Lately, some of the families have become wealthier after selling agricultural land to private companies. The dwellers have also received subsistence income from the 120 migrants who work at the nearby factory and have rented rooms from the community. Many of the community dwellers also work at the factory.

“We built extra rooms and now we have extra income from the tenants, who work in the garment factory.” (Male in Kob Kong)

“We have sold this land for a good price and bought cheaper land further away.” (Female in Kob Kong)

“We are not cultivating (rice) anymore; since our land is so small...We are now working in the factory.” (Female in Kob Kong)

The garment factory, situated on the neighbouring plot, uses groundwater, which has with high probability lowered the groundwater level. For years, Kob Kong has relied on groundwater resources. The eleven wells in the community have served as a water source and provided income for some of the families. Since 2006, the seven household wells and the two pump wells have slowly dried up. The two private drilled wells are still working but with a considerably lower capacity. Because of this problem the dwellers have to rely on private water vendors. The water bought from these vendors is very expensive; piped water is around ten times more expensive than ground water.

“The garment factory offers employment for us but they are using our water.” (Female in Kob Kong)

“We cannot use the drilled well of the factory, even though it is situated just behind my house.” (Female in Kob Kong)

“We are buying water now from private vendors, but it is very expensive.” (Female in Kob Kong)

“Our wells do not have any water anymore... Now we are using them as rubbish dumps for construction waste.”
(Female in Kob Kong)

Kob Kong is well organized. Since 2002, the dwellers have had a Community Development Committee and a Saving Fund Group with the support of PURP and URC (Heinonen, 2008b). The CDC has been active, and together with the NGOs it has been able to develop the community by building roads and drainage systems, while the SFG has helped its members to overcome daily difficulties.

“Now we have money for piped water, since we have good income (from factory work).” (Male in Kob Kong)

“People are using saving funds to overcome the daily difficulties such as sicknesses.”
(Female in Kob Kong)

9.2.2 Reaching out for piped water

- The groundwater levels started to drop in 2006, and slowly the water supplies ran out. After noticing that the change was not only a temporary problem, the Community Chief and the Chief of the CDC called the community dwellers into a meeting, which aimed to find a solution for the problem. The dwellers agreed that they would make an effort to get piped water instead of using their money on deepening and repairing the old wells. The problem was added as the first priority into the annual development plan of the community.

“In our meeting we decided that we want to have piped water. Water is very expensive now and so is repairing the wells.” (Male in Kob Kong)

- At the same time, the Commune Council approached the community. The council annually collects development proposals from each community, and in this way sketches development plans for the entire commune.

The dwellers submitted their proposal for the piped water connection to the council.

“The commune contacts us annually and asks for development proposals...Now we proposed piped water connection.” (Male in Kob Kong)

- Furthermore, the community chiefs visited the council and discussed the situation in the community. During this visit they were told that the council does not have funding for water supply improvements. The funds that the Commune Council has are mainly directed to drainage and road constructions, and the water supplies are the responsibility of the communities. Thus, there was no response from the council with respect to the proposal of the community.

“The commune council cannot fund piped water connections, the funds are mainly for road construction.” (Male in Kob Kong)

- Because there was no attempt from the council’s side to develop the community’s water supply, the dwellers decided to approach the Phnom Penh Water Supply Authority (PPWSA) themselves. In early 2007, the Community Chief and the Chief of the CDC wrote a proposal that was signed by the community dwellers and submitted to the PPWSA with a letter of recommendation from the Commune Council.
- PPWSA did not respond to this proposal and the chiefs had to pressure the authority. Finally the authority replied and sent their ground staff to visit the community. However, after this visit there was no feedback from the PPWSA.

“We have contacted the authority several times, but there has been no response.”
(Male in Kob Kong)

- In order to put more pressure on the authority and to lower the costs of piped water, the

dwellers planned to co-operate with the Krang Don Thei community nearby.

“We are planning to work together with our neighbour community to get more pressure...And reduce the costs.” (Female in Kob Kong)

- When approaching the PPWSA again, the community received an explanation for the delay. “Due to the low capacity in the old treatment plants, the PPWSA was not able to enlarge the serviced area in 2007 and 2008. Hence, the community’s requests have not been responded to. “
- According to the discussions with the General Director of PPWSA, Kob Kong will be contacted as soon as the two new treatment plants are ready (Chann, 2008).

9.2.3 Organizing the community for development work

At the community level, the development work is resting on the shoulders of the Community Chief and the Chief of the CDC. They call the dwellers together, inform and contact NGOs, councils and authorities. The Community Chief is appointed by the commune, but the Community Development Committee and the Chief of the CDC are elected.

To succeed in their work, the chiefs must be trusted and respected by the community dwellers. The chiefs in Kob Kong have worked efficiently and achieved community development. However, lately the trust and togetherness within the community have been hampered by sudden income changes among the dwellers as a result of land selling, besides different views and political opinions. This has undermined the trust in the objectivity of the chiefs as well as in the strength of the saving groups.

“Because some of us (also the chief of the CDC) got rich by selling land to a private company, people do not believe in the chiefs or in the saving groups anymore.” (Female in Kob Kong)

“Some people envy us because we now have better income due to the tenants and work in the garment factory.” (Female in Kob Kong)

The saving groups (SFGs) have been established to offer cheap loans for families in order to overcome sudden expenses, e.g. illness or death in the family. As a result of mistrust, today only 48 families of 107 take part in the groups with a monthly deposit of 1.000 riels (0.25 US\$). This has also diminished the role of the SFGs in the community and thus they have not managed to save money for community development purposes such as piped water connection. Instead, people are saving for the connection on their own. In addition, the poorest families in the community do not actively take part in the development discussions in the community or in the saving groups.

“There are people that are not interested in joining the development plans or saving groups... These are commonly the poorest families in our community.” (Female in Kob Kong)

“People are saving by themselves for the piped water connection. Saving groups are not used for this.” (Female in Kob Kong)

The lack of trust within the community has also influenced the plan for the piped water connection. The community is planning to obtain household connections from PPWSA, even though it would be cheaper to have only one main connection in the community, and the community would then take the responsibility for the household connections and fee collection. If all households have to buy a water meter and build a connection, the price of the water connection is estimated to rise up to 120 US\$ per family. This is a high price for the dwellers, and thus the Community Chief estimates that more than one-tenth of the dwellers cannot afford to acquire the connection.

“We are planning for household connections... It is too much trouble to take responsibility for fee collection... We

are not sure that all the families will pay us back...” (Female in Kob Kong)

“All the dwellers in the community cannot afford piped water.” (Male in Kob Kong)

9.3 STRATEGIES AND NEEDS FOR GAINING ACCESS TO PIPED WATER

There are three ways in which a poor community can gain access to piped water in Phnom Penh (Figure 20 / 1, 2, 3). Even though there are different partners that can help the communities and facilitate the discussions, achieving development calls for great activism also from the communities.

1. When planning to develop the community’s water supplies, the Community Chief and the Chief of the CDC approach a non-governmental organization. The NGO then contacts PPWSA, helps in practical planning and facilitates the discussion between the community and the authority.
 - This pattern of development has been used, for instance, in 101 Community and Dey Krahorn. These communities gained access to piped water connections in 2003 with the assistance and support of the Urban Resource Centre.
2. The community chiefs inform the Commune Council about their development plans

through the annual development proposal gathering or as extra information. The Commune Council will then together with the dwellers approach PPWSA.

- If the Commune Council does not support the water supply development (because of e.g. misunderstandings, lack of knowledge, personal chemistry), the process will become much more complicated.
 - The lack of Council funding for piped water development further hampers the development, since the hook-up fee is high for the poor communities. The power of the saving groups in the communities is also rather limited excluding the poorest families. Consequently, the communities would need an effective micro-credit system to overcome the high prices of the piped water connection.
3. The community chiefs contact the development branch of the PPWSA directly and start to negotiate about the connections.
 - This development pattern was used, for instance, in Kob Kong. The community, however, received a proposal letter from the commune, which formalized their approach.

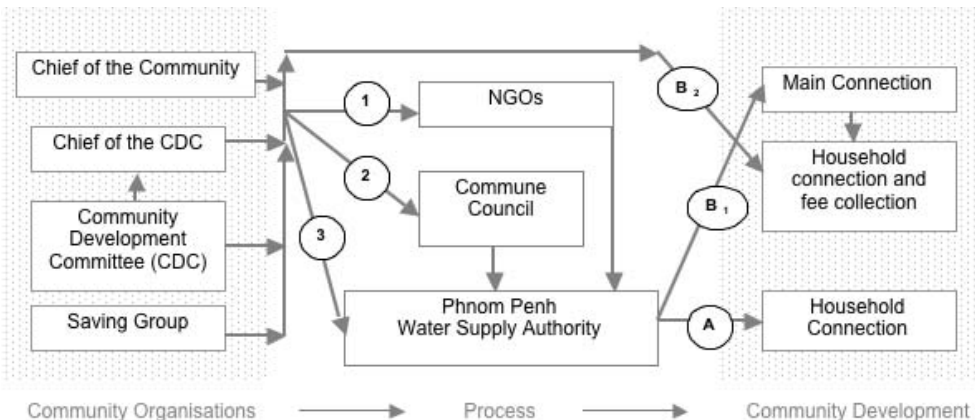


Figure 20 Community strategies to gain access to piped water

- Unfortunately, there seems to be a low capacity in the PPWSA to help all the communities that need assistance in gaining access to piped water in Phnom Penh.
- In order to make the consultations with the community and the authority effective, there still seems to be a need for an objective and skilful intermediary.
- This process is cheaper for the dwellers, but needs more work from the community organizations in implementing and managing water use.
- These communities are often supported by a NGO, which objectively facilitates and evaluates the implementation and management process.

The rest of the development process depends on the community and its organizations. As a result, there are differences in how the dwellers decide to organize the connection within the community (Figure 20 /A, B1, B2). The strategy usually depends on the activity of the community organization, togetherness and trust in the community as well as the income level of the dwellers.

A. PPWSA takes the responsibility for the whole process up until the household connections. The dwellers pay the fees directly to the authority.

- This strategy is common in the communities, where the trust in the CDC and the Chief of the Community is not strong.
- For example in Kob Kong, the trust and togetherness in the community can be affected by income changes and political disparities.
- This strategy is more expensive for the dwellers but the lack of trust often makes it the only viable option.

B. PPWSA organizes a main connection for the community, and the dwellers take care of household distribution and fee collection.

- This strategy is common in the communities that have a mutual understanding in the community and high trust in the development committees and the dwellers.

As we can see, the role of the community organizations is crucial at the practical level of development work. The strong community organizations have been an asset for the poor communities to achieve development, such as piped water, cheaper and more efficiently. The Community Chief and the Chief of the Committee have often initiated these development plans and thus they also have a central role in the water supply development of the poor communities in Phnom Penh. Nevertheless, the success of these plans has also been directly or indirectly dependent on the water supply authority. Naturally, a major reason for the success of the projects has been the location of the community, i.e. if the community is located in an area, which is or will be served by the authority, besides a number of other infrastructure and financial issues. An important reason also seems to be the timing and the person that the dwellers approach in the PPWSA.

In addition, there are many traditional customs in the communities that influence the water supplies, their use and safety:

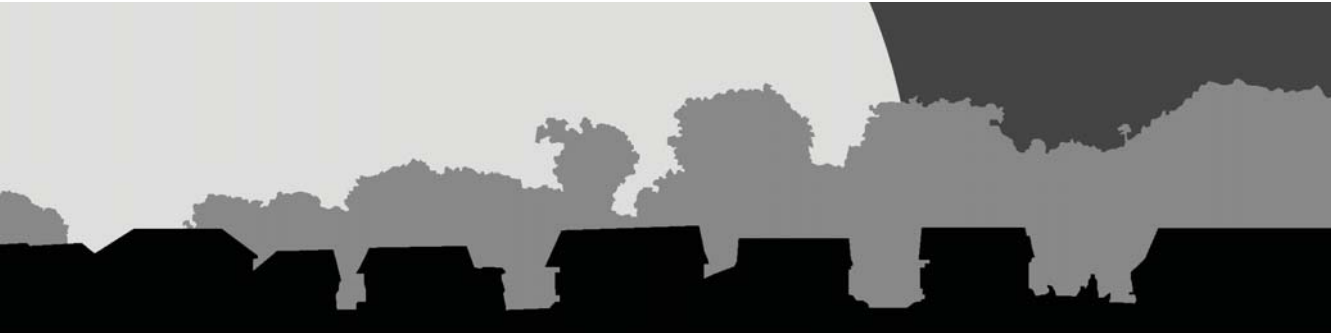
- There are still families that use surface water but do not boil the water before drinking (e.g. Prek Taroth). Many of the dwellers think that it is cheaper to occasionally take medicine than to boil water every day.
- A majority of families store their water in traditional jars. Storing surface water before drinking improves water quality and reduces solid matters. In contrast, storing piped water in traditional jars, which is common behaviour in the communities, is questionable, since the stored water easily becomes contaminated with coliforms (Heinonen, 2005).

- The water storages and wells are not properly taken care of; the jars and wells are inadequately covered, animals use the same water jars, the jars and buckets are not cleaned regularly and the wells are not maintained in an appropriate way.

The reason behind the above-mentioned behaviour is not principally the lack of knowledge, but the lack of togetherness and motivation in the community. In all the communities the development committees are working on hygiene education. However, to be taken seriously and to be able to reach all the dwellers in the community, the committees need support. Very often the poorest households do not take part in the development discussions and also suffer most from water related illnesses. Furthermore, they are often excluded or they exclude themselves from the saving efforts which could help them cope with sudden income changes (Middleton and Tola, 2008).

Since the study communities are fairly heterogeneous, they need support in strengthening their feeling of togetherness. The communities also call for assistance in networking with other communities, and to be able to have prolific dialogues with other stakeholders, such as PPWSA. Above all, the communities require a strong facilitator to help them to act as serious candidates for development work.

The local NGOs have helped the communities to discuss with the authorities. It seems that while the community organizations are not yet deemed reliable partners in the development discussions, the NGOs still play a crucial role in the development work on the grass root level. They also offer significant support for the city to be able to fulfil its development targets - to provide safe water for all its citizens. In some cases, these organizations have even taken the responsibility of the state in providing wellbeing for the inhabitants, thus filling the voids of the state in providing basic services such as clean water for the inhabitants in spite of their social status.



PART IV: Major findings & conclusions

10 Major findings:

Water resources, poverty & participatory development

10.1 ELEMENTS CREATING POVERTY IN THE TONLE SAP REGION

According to the PRA studies and expert interviews conducted by the author (Heinonen 2004; 2006), the definition of poverty by Baharoglu and Kessides (2004) also fits within the context of Tonle Sap Region. Poverty in the region can be characterized through five elements: income, health, empowerment, education and security (Figure 21). These elements are largely related to the livelihood opportunities of the inhabitants and thus have an influence, alone or together, on their ability to rise from the poverty trap (Heinonen, 2004; 2006).

As the studies show (Chapter 5), the most common livelihoods in the Tonle Sap Region - farming,

fishing, cattle breeding, collection and small-scale trading - face many problems both at present and regarding the future development prospects of the region (Haapala, 2003a-c; Keskinen, 2003a-d; Heinonen, 2004; 2006; NIS, 2005c-f; Ballard, 2007; Keskinen, 2008). Many of these problems and their causes are not only local, but have roots at the national and regional level (Figure 21).

The main livelihood in the region is rice cultivation (NIS, 2005c-f). Although agriculture is fundamental for the income and health of the people, it remains quite unproductive (Haapala, 2003a-c; Keskinen, 2003a-d). The region's rice cultivation is based mainly on wet season rice (rain fed), although floating rice and recession rice varieties are also important (Varis et al., 2005;

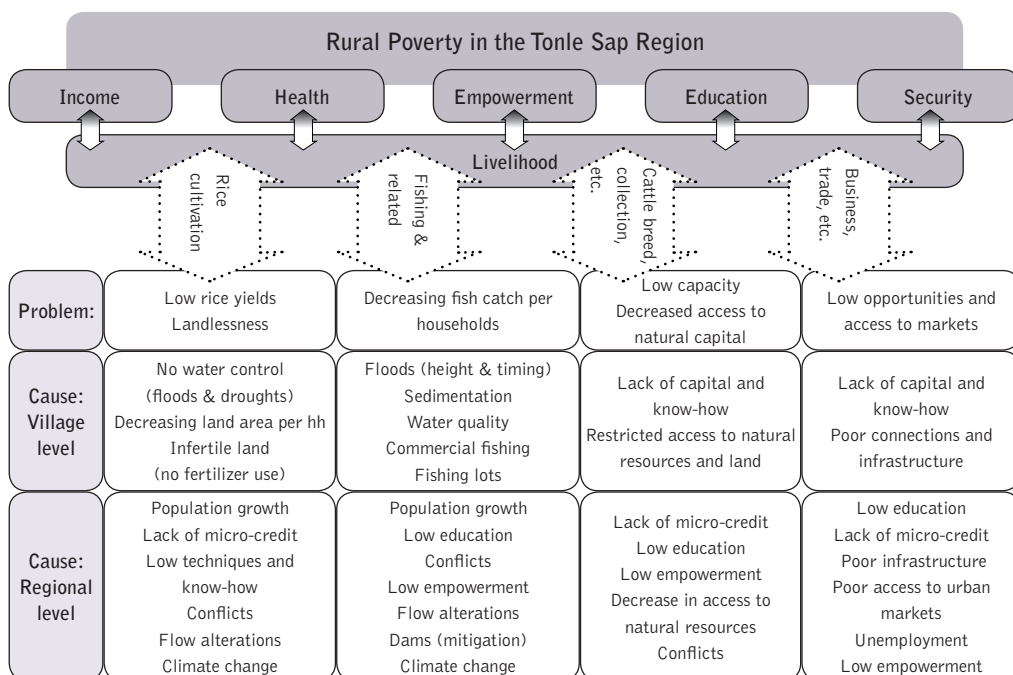


Figure 21 Elements behind rural poverty in the Tonle Sap Region

Heinonen, 2006). Low know-how and capital stand in the way of possible new cultivation methods and infrastructure developments, which would have an impact on agricultural productivity (World Bank, 2006a).

Overall, the agricultural sector continues to be underdeveloped due to low technical capacities of the farmers, lack of irrigation facilities and capital for fertilizers and other cultivation methods and materials (World Bank, 2006a). The author's studies illustrate that most of the farmers in the region do not have efficient water controlling facilities. Consequently, rice cultivation is greatly dependent on annual rainfall patterns and floods (Haapala, 2003a-c; Keskinen, 2003a-d; Varis et al., 2005; Heinonen, 2006).

However, there are great variations in the height and timing of the floods, rains and droughts, and these irregularities pose challenges for the farmers's livelihoods (Koponen et al., 2002; Heinonen, 2006). As stated by the farmers involved in the study, these rapid and unpredictable changes in water level and scarce rain at the sowing time greatly influence the rice yields (Heinonen, 2006). Consequently, the possible changes in water flows and water quality due to man-made or climate related flow alterations affect the livelihoods of numerous households in the region (Keskinen, 2008; Kummumäki and Sarkkula, 2008; Onishi, 2008).

Moreover, the productivity of the sector is reduced by population growth, which puts pressure on the availability of free arable land (NIS, 2005c-f). As identified by the farmers in this study, the growing number of new families reduces the size of the present land plots per family and has left many families landless (Haapala, 2003a-c; Keskinen, 2003a-d). Frequently, the landless families join the agricultural paid labour. Nonetheless, employment in the sector is very unreliable, and thus creates a poor starting point for the families (MOP, 2001; Ballard, 2007). In general, the insecure land tenure obstructs the land use of the farmers. The land concessions and large irrigation development schemes, for instance, have reduced

the land available for agricultural use and also their access to other natural resources (UN, 2007; Madra, 2008).

Fishing and fishing-related activities (e.g. fish products, fishing gears) are also important livelihood sectors in the Tonle Sap Region (Varis and Keskinen, 2006). Fish provides the main source of protein for the inhabitants throughout the year and offers a livelihood or subsistence income for many of the region's villagers (Jensen, 2000). As stated by the fishermen in this study, fishing activities are, nonetheless, hindered by decreasing fish catches per family. Even though the studies of Baran and Myschowada (2008) show that the total fish catch of the lake has increased, the catch per household has to a great extent decreased as a result of population growth and the consequent over-fishing. Other factors behind the decline in fish catches of the local fishermen are changes in water quality, sedimentation and extensive commercial fishing (Mareth, 1997; Varis et al., 2005; Lamberts, 2008).

The Tonle Sap Lake is mostly divided into fishing lots that are auctioned to private companies. The restrictions on local fishermen to fish in these areas, the conflicts with the elites and the low empowerment have pushed the local people to fish only in the few overused spots (Tar, 2003; Varis and Keskinen, 2006). According to the fishermen, this has lowered the living standards of many households through lower fish catch and affected their main or subsistence income generation (Haapala, 2003a-c; Keskinen, 2003a-d). Besides, future changes in the water flow of the Mekong River, for instance due to hydropower construction, may influence the fish population by affecting migration and breeding (MRC, 2003c; Miller, 2000; Li and He, 2008). Recent climate change may also change the ecosystem in the lake, and consequently affect the fish population and catches of the local fishermen (Penny, 2008; Kummumäki and Sarkkula, 2008).

As illustrated by the author's studies, many of the households in the region are gaining subsistence income from cattle breeding, crocodile farming,

fishing, or firewood, plant and animal collection. Accordingly, they are very vulnerable to changes in natural resources and in access to this capital (Haapala, 2003a-c; Keskinen, 2003a-d). Lately, the use of the natural capital in the region has declined considerably. This is caused by land concessions, large-scale development schemes, restrictions and conflicts with local elites (Ballard, 2007). The limited capabilities of the local people to participate in the development further obstruct their ability to protect their rights and maintain this important buffer income source (World Bank, 2006a). Overall, the low empowerment has created many barriers for the inhabitants to support their sources of income, and thus has hindered poverty reduction in the region (UN, 2007).

On the other hand, the small-scale business and trade opportunities in the region are restricted by low capital, lack of micro-credits, poor infrastructure and poor access to markets (Fitzgerald and Sovannarith, 2007). The business opportunities are also hampered by the low level of education and contacts outside the village (Ballard, 2007). According to the villagers in this study, especially contacts with urban markets are restricted. The mechanism to collectively bring the products of the villages to the markets is missing as well (Haapala, 2003a-c; Keskinen, 2003a-d).

As stated by Baharoglu and Kessides (2004), health and education have an immense effect on poverty and vice versa. The author's studies additionally show that poverty has led to poor food and water quality, dire working conditions and inadequate healthcare also in the Tonle Sap Region (Haapala, 2003a-c; Keskinen, 2003a-d). The lack of safe water and sanitation has also impacted health and the ability to improve business opportunities (Heinonen, 2004). Overall, poverty and poor infrastructure have reduced inhabitant's access to education and vocational training in the region, which has further delayed the adoption of new techniques and employment possibilities (Ballard, 2007).

10.1.1 To sum up: How does poverty build up in the Tonle Sap Region?

Poverty in the Tonle Sap Region can be understood through the following five elements: income, health, empowerment, education and security. Furthermore, these elements are largely related to the livelihood opportunities and development prospects of the inhabitants. Farming, fishing activities, cattle breeding, collection and small-scale trading offer a livelihood for most of the poor rural dwellers in the region. However, these livelihoods face many difficulties today and even more so in the future.

Many of the obstacles have roots at the national and regional level. The future water resources development plans, low education and skills, limited access to capital and natural resources, and the powerlessness in terms of participation in decision-making have caused many of the problems. As a consequence, these elements also involve numerous possibilities for supporting the inhabitants to carry on with their traditional livelihoods, to find a new source of livelihood and tackle the deep poverty of the region.

10.2 REDUCING POVERTY THROUGH SOCIALLY JUST WATER RESOURCES MANAGEMENT

As stated by the author and several other researchers, a majority of the population in Cambodia, particularly in the surroundings of the Tonle Sap Lake, are deeply reliant on water resources for their livelihood, nutrition, hygiene and health (Haapala, 2003a-c; Keskinen, 2003a-d; Heinonen, 2006; Mehtonen et al., 2008). Since water resources touch different sectors of society, socially just water resources management is in a crucial position when aiming to reduce poverty in the Lower Mekong River Region (Chapter 5 and 6).

Water resources development carries positive as well as negative impacts on the region's development. For instance, the large-scale water resources development activities that the region is currently experiencing may have negative consequences for the local livelihood structure of the Tonle Sap Region (Keskinen, 2008; Kummur and Sarkkula, 2008). Water resources development plans also

carry high transboundary impacts (Keskinen, 2008; Lu et al., 2008). Hence, achieving socially just water resources management calls for participation of different sectors and social groups within the entire region.

As shown by several authors, the Mekong Region has many organizations working for development, also for water resources and poverty reduction. However, these organizations do not work in close collaboration with each other and as a result, the development activities remain rather fragmented and project-based (Badenoch, 2002; Ratner, 2003; Hirsch et al., 2006; Sokhem and Sunada, 2006). Socially just decision-making in the region thus needs an organization that could regionally bring all the relevant stakeholders together to discuss and share opinions about the development plans and their cumulative impacts on the regional development.

As shown by the author, when considering socially just water resources management and poverty reduction in the region, the power and the prospects of the Mekong River Commission (MRC) are worth closer scrutiny. The commission is an intergovernmental body representing the needs of the countries in the Lower Mekong River Region. The organization promotes and co-ordinates sustainable management and development of water and water-related resources for the mutual benefit of the countries and for the well-being of the people (MRC, 1997; 2003; 2006). Lately, the MRC has declared Integrated Water Resources Management (IWRM) and poverty reduction as its main tasks (MRC, 2005b; 2006). Thus, the organization has a vital role in improving the living standards of the poor and in achieving poverty reduction, also in the Tonle Sap Region.

MRC has for several years promoted socially just development and participation of local people in the management of water resources (MRC, 1999). However, the author's studies illustrate that in reality broad involvement of different stakeholders, such as civil society, in the planning and decision-making has only recently been implemented

(MRC, 1999; 2003c; 2005a-e; 2006; 2007). In addition, there have been doubts about the capabilities of the commission to realize its new goals - changing its top-down methods, engaging the various stakeholders, reaching the poorest and putting the IWRM process into reality (Hirsch et al., 2006).

However, the author sees that the Basin Development Program of MRC and the stronger National Mekong Committees are good starting points for enhancing genuine participation and socially just decision-making in the region (MRC, 2003a; 2005e; 2006; MRCS, 2003a-c). Achieving a participatory process and changing the development patterns to more socially aware ones, nonetheless, takes time. This is challenging, particularly, in a region where the countries have very different levels of democracy. Much depends on the ability of the commission in finding the right stakeholders, above all the ones that can objectively and broadly present the various views of the rich civil society.

As noticed by the author in various expert interviews and participatory studies (Haapala, 2003a-c; Keskinen, 2003a-d; Heinonen, 2004), the country's civil society organizations, in particular the community based organizations, usually do not comprise the poorest and the most vulnerable people of the community. These people are often hit hardest by the development plans. To tackle this mismatch, the civil society organizations need support in building trust within and between the communities in engaging the poorest dwellers in the development processes. Meanwhile, until the regions community based organizations become stronger, the involvement of non-governmental organizations and regional academic networks is crucial in voicing local concerns and views of future development plans.

Moreover, equal poverty reduction calls for a profound transformation of the member countries' government structures. The development in Cambodia, for instance, has been to a great extent economically orientated and excluded the poor from opportunities and decision-making

(Badenoch, 2002). Since the development has favoured the rich over the poor, the trust in and satisfaction with public officials has declined among the poor dwellers, in both the Tonle Sap Region and Phnom Penh (Chapter 8). As a result, the civil society organizations are regarded more trustworthy when it comes to putting the local concerns forward (Fitzgerald and Sovannarith, 2007). Consequently, the MRC could enhance its authority in the eyes of the member nations and the local residents through these organizations that already seem to be close to the local dwellers.

As suggested by several authors, the regional co-operation overall in the Mekong suffers from high level of opacity and lack of commitment (Badenoch 2002; Ratner, 2003; Sokhem and Sunada, 2006). Low political dedication from the region's governments, especially China's, is a tremendous hindrance to socially just water resources management (Mehtonen et al., 2008). Therefore, to boost equal development, the region needs a strong transparent body that is able to balance the social, economic and environmental aspects of the development actions regionally and to involve relevant stakeholders (Hirsch et al., 2006). Only through such an objective body could the voice of the region's civil society be heard in regional water resources management and poverty reduction achieved.

It remains to be seen whether this body is the MRC. According to the author's studies, the recent development of the commission has taken a couple of steps closer to becoming such a body (MRC, 2006). However, much depends on how the organization is able to balance between the economic pressures from the member countries and the overall environmental and social sustainability of the region as well as support and increase stakeholder participation. Hydropower development, for instance, is a hot topic and very economically oriented. It is a crucial issue when aiming at equal poverty reduction, and hence it cannot be left out of the commission's new tasks.

As evidenced by the author's studies, there currently is no regional actor that could analyze

the cumulative impacts of the development plans and include the various perspectives in the Mekong Region. Hence, socially just water resources management and equal poverty reduction still seems to be very far. Partial participation by the local people in the work of the commission and in the various other development organizations might, nonetheless, enhance poverty reduction locally. In addition, participation by academics and various NGOs may at some level help integrate the local concerns into decision-making, particularly through the emerging stakeholder meetings provided by the commission.

10.2.1 To sum up: Does recent water resources management enhance poverty reduction?

There is a great contradiction between the regional modern and the traditional local needs in the Mekong Region. For instance, small-scale water development projects such as small-scale irrigation, flood control and irrigation schemes can enhance the livelihoods of the local dwellers in the Tonle Sap Lake Region. In contrast, the large-scale hydro-power development projects, which as such can be economically prosperous for Cambodia, could carry multiple risks for the local livelihood structure in the same region. Due to these contradictions and the far-reaching impacts of water resources development, the region's water resources management has a crucial role to play in equal poverty reduction. This calls for continuous and broad strategies, wide stakeholder dialogue and information sharing regarding the proposed plans and their cumulative consequences.

Today, the region does not have an actor that could bring the various stakeholders and perspectives together and analyze the impacts of the various development plans that the region is experiencing. The recent initiatives of the Mekong River Commission to implement an integrated approach and stakeholder participation, nonetheless, are good starting points for socially just decision-making and equal poverty reduction. However, putting the strategies into action takes time because of the poor skills and restricted spaces of civil society as well as the top-down decision-making structures of the member countries.

Hence, achieving equal poverty reduction in the region seems fairly unlikely in the near future. For the moment,

public participation in the work of MRC and the other development organizations may, nonetheless, improve the living standards of the poor locally and to some extent make local concerns heard in the regional decision-making.

10.3 LINKAGES OF RURAL AND URBAN POVERTY

The studies of the author show that the primary driving force for migration from the Tonle Sap Region is the rural push, which dragoons villagers to move (Chapter 5.2). In many cases the villagers would like to stay in the rural areas but are pushed to migrate due to various pressures on their livelihoods (Haapala, 2003a; Heinonen, 2004; Heinonen, 2006). There are multiple reasons, alone or jointly, creating this pressure of migration. The driving force that pushes people away from the region resembles a net, woven out of many different components. For instance, population growth, poverty, water and natural resources and arable land are all parts of this net, creating the push (Figure 13).

As the participatory studies of the author illustrate, many of the elements behind the driving force are related to livelihood opportunities and water resources management, elements that are similar to those behind poverty (Heinonen, 2006) (Chapter 5.2 and 10.1). Since the livelihoods of the people in the region have such strong links to water resources, the possible changes in the water flows of the Mekong River could have an impact on the lives of over one million dwellers in Cambodia (CNMC, 2004). Moreover, the participatory studies of the author illustrate that the deepening rural poverty and inclusive economic development will lead to further migration (Haapala, 2003a; Heinonen, 2004; 2006). Since most of the recent migrants tend to migrate to urban areas, the increasing rural push will be seen as amplified urbanization (NIS, 2005a).

It is essential that the socio-economic conditions, including migration, are known when aiming to manage the region's water resources in a socially

just manner and achieve equal poverty reduction. The water-related problems are already severe in many households and these will increase, if the economically orientated water resources management is encouraged (Haapala, 2003a-c; Keskinen, 2003a-d, Heinonen, 2004). In addition to the human-made changes in the water flows, it is estimated that future climate change will affect the livelihoods of the local dwellers and increase environment-induced migration (Morton et al., 2008). Due to these connections, migration can be seen as a critical socio-economic indicator that should also be included in the overall development plans of the region.

The studies of the author further demonstrate that gossip and stories are an important information source for the migrants when they choose their new destination (Chapter 5.2 and 7.2). Since many of the migrants rely on this information and migrate after their neighbours and friends, it seems highly probable that future migration flows follow the current migration patterns. Many of the villagers from the Tonle Sap Region, for instance, have migrated to Phnom Penh (Heinonen, 2004; 2006; NIS, 2000b). If poverty worsens in the Tonle Sap Region, the city will receive even more migrants from this region.

On the other hand, Phnom Penh does not have good employment opportunities for the unskilled workers. Consequently, poor migrants often end up working in the informal sector or in the narrow garment and construction industry. As shown by the author's studies, working in the informal sector, nonetheless, includes many risks (Heinonen, 2008b). Therefore, there is a great possibility that migration worsens the living standards of these dwellers as well as those of the poor urban dwellers. As a result of low income, poor working conditions and higher living expenses, the poor migrants face in many cases difficulties in earning and saving money. This reduces their potential to raise their living standards and support their rural families (Chapter 7.2).

Saving money for future business opportunities in Phnom Penh takes often longer than expected.

In addition, the remittances from migrants commonly give flexibility for the rural families, but cannot reduce poverty (World Bank, 2006a). In consequence, migration does not always provide better opportunities for the migrants or their rural families. Moreover, this coping strategy of the rural poor is problematic since Phnom Penh cannot continue to provide employment opportunities for the flows of uneducated migrants. Relying only on the few employment opportunities in the city makes this buffer income fragile and unsustainable in the long term (Heinonen, 2004; 2008b).

Phnom Penh also attracts migrants from the wealthier families with education opportunities. As illustrated by the focus-group discussion conducted by the author, these migrants have different starting points compared to the poor rural dwellers. They are often supported by their families and are planning to stay in the city, since there are no good employment opportunities available in the rural areas (Chapter 7.2). Even though these migrants are wanted for urban development, as they raise the level of capabilities and education in the cities, this type of migration creates problems for rural development (Figure 22). If the country's rural areas cannot keep the wealthier and educated young people and provide employment opportunities for them, how can the rural areas be sustainably developed and the present decentralization process implemented? Already now the rural areas of Cambodia are far

behind their poverty reduction goals compared to the urban areas, especially Phnom Penh (MOP, 2006).

10.3.1 To sum up: How does rural-urban migration change poverty?

Since future migration tends to follow the current migration patterns, the deepening rural poverty in the Tonle Sap Region increases migration pressures especially to Phnom Penh. However, the capital city does not have expansive employment opportunities to offer for the mushrooming migrants. As a result, the rural migrants often end up working in the informal sector. The sector is characterized by low and insecure income, poor working conditions and non-existent social protection that hinder their possibilities to earn a decent income and remit money to rural areas. As a consequence, migration does not always provide better opportunities for the migrants and their rural families. Given that the employment opportunities of the migrants in the city are limited and only relying on a few sectors, the buffer income that migration offers for the rural families is not sustainable in the long term. In addition, the increasing pool of migrants in Phnom Penh narrows the niche of those poor already in the employment sector.

The rural areas of the country are experiencing an outflow of middle-class educated, young migrants. These migrants move to the city to stay and are wanted there for supporting the urban development. On the other hand, these migrants would be crucial for the rural development and poverty reduction. Presently, urban areas draw educated people out of the rural areas, while the poor migrants with small capitals eventually return to their villages. If this development continues, how is the country able to reduce poverty and achieve equal economic growth? There are already signs that the rural areas of Cambodia are far behind the urban areas in terms of social and economic development, and that rural-urban migration, a coping strategy for many rural families, does not seem to solve this problem.

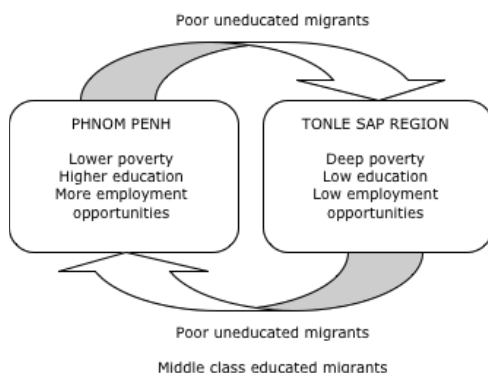


Figure 22 Is rural-urban migration leading to deeper rural poverty?

10.4 OBSTACLES TO POVERTY REDUCTION IN PHNOM PENH

Numerous poor dwellers in Phnom Penh suffer from inadequate housing, infrastructure, education, health care and social integration

(SUPF, 2003). As illustrated by the author's studies, informality, meaning insecure housing rights and income generation, most of all hinders the possibilities of the poor to reduce poverty (Heinonen, 2008b). Due to informality, the poor face many barriers to their daily existence and there is a high risk that they become working poor with earnings insufficient to raise themselves and their families above the poverty line (ILO, 2004; Heinonen, 2008 a-b).

The work in the informal sector is often the only way to have food on the table for these poor dwellers. However, the link between poverty and informal employment is obvious. As many authors have stated, the sector offers poor income, working conditions and social protection and excludes workers from development dialogue and decision-making (Sethuraman, 1997; Ishengoma and Kappel, 2006). Capital, gender, domicile, education and contacts all influence the capabilities of informal employees to survive in their jobs. Rural migrants tend to fall into the lowest category of these employments, because they have problems making use of contacts and informal credit systems in the city (Trebilcock, 2005).

Every day around 300.000 poor dwellers work in the informal sector of Phnom Penh (SUPF, 2003). Consequently, in terms of poverty reduction, the problems of these workers are the ones to be addressed. To help the informal workers out of the poverty trap, however, is easier said than done. Since 1999, the municipality of Phnom Penh has tried to address the informal sector but with weak results (Municipality of Phnom Penh, 1999). The informal workers have worked hard, often in unhealthy conditions, and faced many obstacles to their daily lives, yet they remain poor (Amin, 2002; Monyrath, 2005).

As identified by the author's studies, the poor in Phnom Penh do not have skills, resources or capital to tackle informality (Chapter 7.3.5 and 8.3). These people are hindered by the formal arrangements

such as regulations, fines and emotional stress, which affect their possibilities to earn a decent income. In addition, these obstacles have further undermined their trust in the authorities. Hence, to help the poor towards secure income, there is a great need for services that support, monitor and regulate informal activities (Heinonen, 2008a-b).

Regulating the informal sector is, however, an immense challenge. The pool of informal workers is broad, and, as often is the case, the increasing economic and regulatory burdens rather harm the activities of the informal workers than help them (Palmade, 2002). In order to improve the productivity, quality and working conditions of the informal workers, the regulations need to address the real needs and obstacles of the sector (Becker, 2004). To succeed in this, the author has identified a number of information gaps; more information and dialogue with the sector is required. There is also a need for education, training schemes and support for the workers' organizations. Micro-credits and saving groups are also an essential part of the improvement process, as they build belief and strength among the citizens (Heinonen, 2008b).

As pointed by the author, informality is further related to land tenure (Chapter 7.3.4; 7.3.5 and 8.3). The informal settlements and workers are generally excluded from the development process of Phnom Penh. The recent activities of the municipality (e.g. relocations, evictions, inappropriate policy frameworks and regulatory requirements) to address informality have not resulted in poverty reduction. The relocations, for instance, have moved a majority of the poor settlements to the outskirts of the city and created new poverty pockets in even more demanding conditions. These development processes have focused on housing but excluded the other elements of poverty such as income generation and empowerment. This is a major reason why these up-grading processes have not succeeded nor led to sustainable poverty reduction in Phnom Penh.

10.4.1 To sum up: What are the obstacles to poverty reduction?

Social exclusion, in terms of employment and housing, is the major obstacle to poverty reduction in Phnom Penh. Due to the poor employment conditions in the informal sector and the inappropriate policies that have further hindered the employment opportunities, the poor informal workers have not been able to achieve improvements in their living standards albeit their hard work. The limited spaces for income generation and secure housing decrease earnings and exclude the poor from decision-making. Giving space to the poor to carry out their work improves their opportunities to earn an income and rise from the poverty trap. To remove these barriers and to secure the income of the poor families, there is a great need for services that can support, monitor and regulate informal employment. However, setting sound regulations calls for deeper understanding about the sector: needs, obstacles and behaviour.

Decent income is a major question in poverty reduction. Yet, its weight has not been addressed in the current city development activities, such as the relocations, and these activities have not been able to reduce poverty. In fact, these activities have created new problems in the increasingly challenging outskirts areas of the city. These relocation areas may in the long run become new pockets of poverty in Phnom Penh and thus become barriers to further poverty reduction.

10.5 ENHANCING POVERTY REDUCTION THROUGH PARTICIPATORY DEVELOPMENT

In the last thirty years, during which the problems of informal housing and inclusive planning have been hot topics in the development discussion, Cambodia has been battling with its unstable political situation (Shatkin, 1996). Only recently have these issues again become noticed in the country and there has been development in terms of people-centred planning; social movements have emerged, civil society has strengthened and a decentralization process is ongoing (World Bank, 2006a). The social aspects of development have become high priorities also in Phnom Penh (Municipality of Phnom Penh, 2005). Moreover, people-centred planning and decentralization

have been addressed through various initiatives, such as SEILAPP, PUPR and UPDF (Municipality of Phnom Penh, 2007a-b).

However, as identified by the author, there are still many barriers on the way of achieving inclusive planning in Phnom Penh, in both governance and the public (Chapter 8.2 and 8.3). Many initiatives to support urban poor communities and participatory approaches have been introduced (Figure 23). Even so, these initiatives have not been effective, and thus the emerging grass root activities have not found an effective counterpart at the upper level of decision-making.

According to the author's studies, there is an evident need for a strong administrative unit in Phnom Penh, which has power and resources and also trust in the poor communities. This division should strongly support community activism, push for policy-development and direct the city's development to support equal poverty reduction (Chapter 8.2). Currently the municipality does not have enough resources in terms of funding and personnel or coherent policies to address the large and multiple problems of urban poverty.

Moreover, UPDF, which supports community organizations, does not have enough resources to address the problems of all the 569 poor settlements of the city and to facilitate the dialogue between the different stakeholders. The lack of a well-known, trusted and objective mediator, who is able to support the poor communities and facilitate the conflict situations that the city development is creating, is thus an immense deficiency in poverty reduction as well as a clear difference when compared to the fairly successful Thai approach (Chapter 8.2 and 8.4).

There is also a great need for a policy that tackles the housing issues in Cambodia. The national housing policy is still in draft stage and due to the low capacities in the ministries it is unlikely to be finished in the near future. Policies regarding upgrading and resettlement are also lacking. The lack of a general city-wide relocation plan is a critical shortage in Phnom Penh, since the

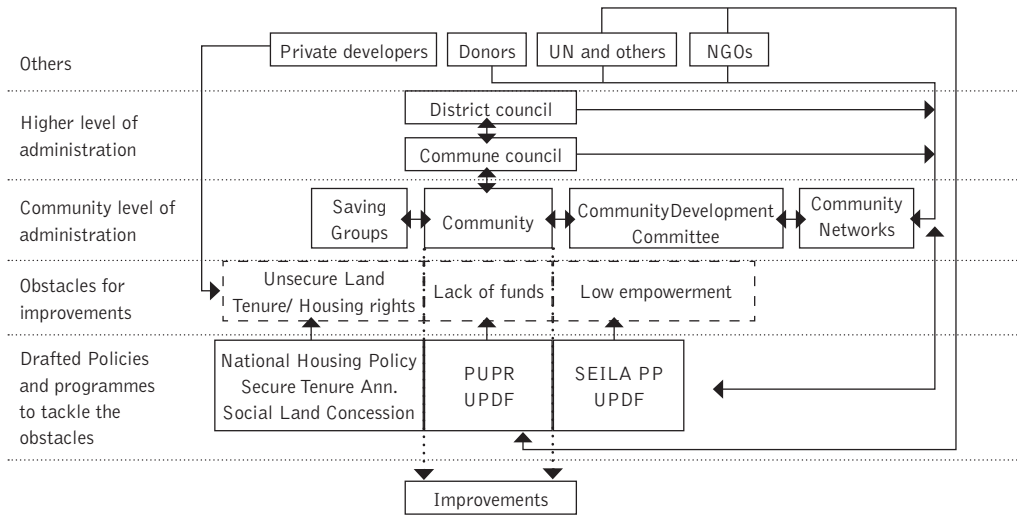


Figure 23 The key obstacles, policies and programs for urban poverty reduction

relocations seem to continue under the pressure of hasty city development (COHRE, 2009). As a consequence, conflicts between communities, the municipality and the private sector are common in Phnom Penh.

As identified by the author's studies, these conflicts, such as the one in Dey Krahom, have undermined the trust in the authorities and their capabilities to support the urban poor (Chapter 8.3.3). Many dwellers accused the municipality of seemingly obeying the wishes of the private companies while the social rights were forgotten. Many showed scepticism towards the recent land tenure announcement, since there has been little progress but, in contrast, many negative impacts on the people's well-being. Other initiatives such as the social land concession or the housing policy are additionally seen to have a limited impact on the lives of the poor since their implementation is marked by nepotism, corruption and poor policy frameworks (Chapter 8.3).

According to the studies of the author, the recent policies have not been able to support community activism. Additionally, the development actions of the commune councils have suffered from limited resources to sustain community development. As a result, the community organizations have tried to make their voice heard and develop the community

through various development organizations (Figure 24) (Chapter 9.3). Overall, these organizations are regarded as more effective than local authorities in giving assistance, delivering basic services and in conveying knowledge and ideas to the communities (World Bank, 2006a).

Even though the work of the city's nongovernmental organizations has been somewhat project-based and narrow, they have been influential at the community level (Chapter 9). The studies of the author illustrate that they have supported multiple development initiatives and a large number of saving groups and community networks (Chapter 8). For instance, the information level has increased in the study communities, and currently the local dwellers have an understanding of land ownership, policies and initiatives regarding housing and community empowerment. Many of the communities are also organized and have fairly active development committees.

The author's studies also identified that at the community level, the development work rests, besides the development organizations, on the shoulders of the chiefs of the community (Chapter 9.3). The chiefs call dwellers together, inform and contact NGOs, councils and authorities (Figure 24). To succeed in their work, the chiefs must be trusted and respected by the community dwellers.

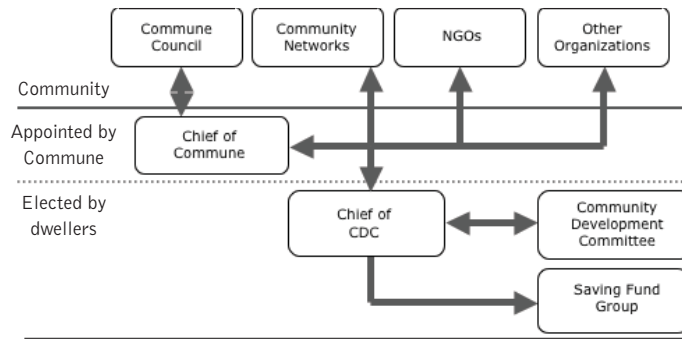


Figure 24 Basic organizational structure of community development work

However, the efforts of these organizations are often person-based and as a result misunderstandings and corruption may easily occur. As seen in the Kob Kong (Chapter 9.2) and Dey Krahom (Chapter 8.3.3) communities, the trust within the community members is easily broken. Even small changes in the community structures and income levels may undermine the trust within the community. On the other hand, betrayal by the community leader can destroy the trust within the community and seriously influence the future of the community members.

Furthermore, the interviews conducted by the author show that the lacking togetherness among the community dwellers undermines the trust in the saving groups. As a consequence, the saving groups remain incapable of funding general community development projects, and thus they can mainly offer a buffer income for the community dwellers. In addition, participation in these groups is limited, and this is true especially of the poorest families. The damaged trust within the community also has an influence on the development plans; if the trust is not strong the community might choose more expensive ways to implement community development projects compared to communities with a solid sense of togetherness (Chapter 9.2).

According to the author, the key problem at the community level in community development is not the lack of knowledge, but the lack of togetherness within the community. The

development committees need support in planning and implementing development projects, in raising the communities' needs to the higher level of governance and in reaching all the dwellers in the community. The communities also need assistance in networking with other communities and realizing prolific dialogues with other stakeholders. There is also a need for a strong facilitator to help the committees become serious candidates for development work.

10.5.1 To sum up: How is participatory development supported in Phnom Penh?

Recently, many initiatives to support urban poor communities and participatory approaches have been introduced in Phnom Penh. However, these approaches have not been coherent, effective or broad enough. Therefore, the emerging grass root activism in the city has not found a counterpart at the upper level of decision-making. As a result, the community organizations have not been able to participate in the development discussions with full weight and the city has seen many tragedies due to blocked stakeholder dialogues.

These disparities are a result of inefficient authorities and policies to address community development. Currently, there is no authority that could efficiently support community organizations and facilitate the conflict situations that the present city development and poorly planned relocations are creating. Moreover, the authorities need to work in closer cooperation with the community organizations and to include the perspectives of the poor into the policy framing and performance. There also is a great demand for new channels of influence in terms

of both governance and civil society. At present, the authorities in Phnom Penh are not capable of supporting community development and participation with full capacity. Accordingly, equal poverty reduction is not to be achieved in the near future.

10.6 CROSS-CUTTING THEME: RURAL AND URBAN PERSPECTIVES ON WATER RESOURCES AND POVERTY REDUCTION

As shown by the author's studies, especially in the Tonle Sap Region, the livelihoods of the inhabitants are greatly dependent on water resources (Heinonen, 2006). The Tonle Sap Lake and the tributary rivers offer water for agriculture, fishing, cattle breeding and household needs (Chapter 5). Rainfall patterns, droughts, floods, eutrophication and sediment, to mention only a few factors, have strong impacts on the rice yields and fish catches of the local farmers and fishermen (Haapala, 2003a-c; Keskinen, 2003a-d). Since water is connected to the major livelihood sectors of the region, its quality and quantity are crucial for the well-being of the rural people and for tackling poverty (Heinonen, 2004; 2006).

As shown by several researchers, the development plans of the Mekong River have far-reaching consequences that cause distress to the lives of the poor, also in the Tonle Sap Region (Keskinen, 2008; Mehtonen et al., 2008). The studies of the author further show that the changes in the water flows and quality may hamper the possibilities of the local people to continue their traditional livelihoods, increasing poverty and the pressure to migrate (Haapala, 2003a; Heinonen, 2004; 2006) (Figure 25).

By reason of the multiple linkages that the water resources have in the society, participation of a wide range of stakeholders is needed when aiming at poverty reduction (Chapter 6). Empowering poor people to engage in water resources management is central for equal poverty reduction; poor people are the most dependent on water resources, they have grass root level information about the problems,

and they are the ones most easily pushed away from their homes, leading to escalating poverty and migration (Heinonen 2004; 2006).

Unfortunately, the long-term cumulative impacts of water resources development are not widely taken into account in the Mekong Region. The management habitually tends to focus on short-term economic growth rather than socially just development (Keskinen, 2008; Kummu and Sarkkula, 2008; Mehtonen, 2008). According to the studies of the author, the narrow scope and exclusiveness of water resources management may have critical consequences; the situation in the rural areas may become unbearable for numerous poor families, whereas urban growth and inequality reach unsustainable levels (Haapala, 2003a, Heinonen, 2006; 2008a).

Every year a high number of rural dwellers migrate to urban areas carrying a hope of better employment, standard of living or education (NIS, 2005a). As shown by the author's studies, migrants are pushed from the rural villages because of the multiple hindrances to their income generation (Haapala, 2003a). Even so, the migrants are not always able to achieve higher living standards in the city (Chapter 7.2). Especially the poor, uneducated migrants, are not in a good position and often expose themselves to informal employment and housing, poor nutrition and pollution (Heinonen, 2004; Heinonen, 2008a).

On the other hand, as presented by the author's studies, the development in Phnom Penh has not been able to meet the needs of the poor. The participatory development sought has been held up by population growth, foreign investments, construction boom and weak authorities (Chapter 7 and 8). The three outer districts, where most of the poor settlements are located now and will be located in the future, for instance, have still many deficiencies in access to safe drinking water (Heinonen, 2004; 2008a).

Even if access to safe water is a critical asset for poverty reduction in terms of income and health, only around one-third of the poor communities have

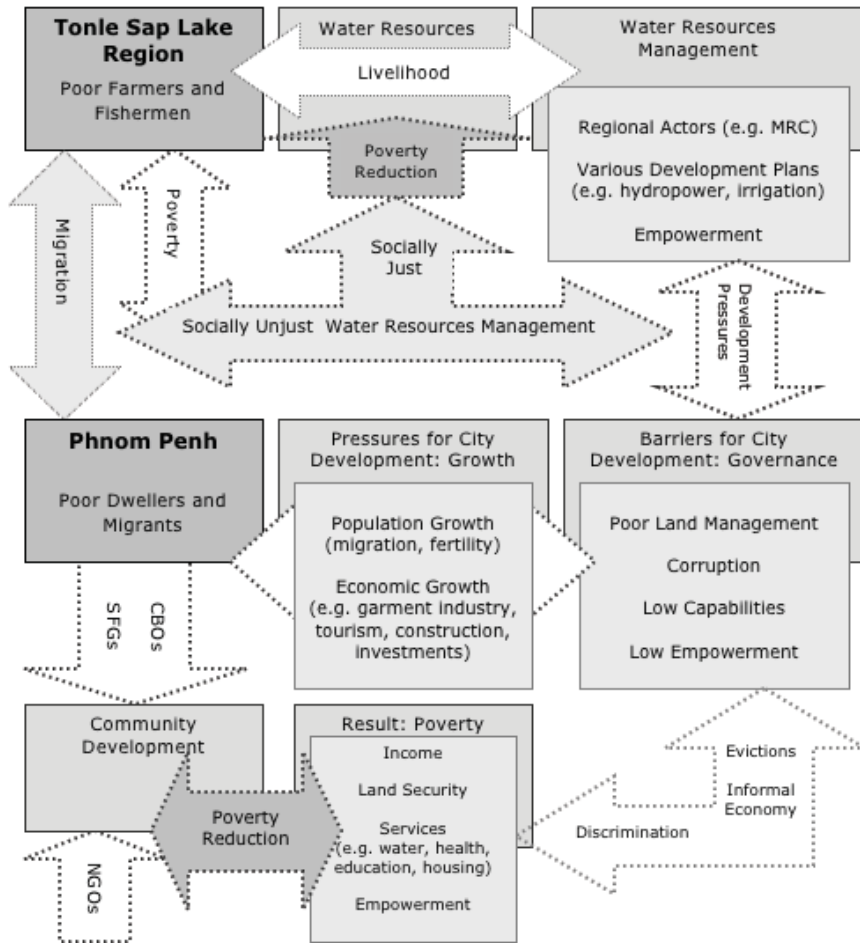


Figure 25 Water resources play a central role in poverty reduction in the Tonle Sap Region and Phnom Penh

access to piped water (SUPF, 2003). Consequently, poor people use secondary water sources, such as private vendors, ground or surface water. The research of the author specifies that these sources of water supply, nonetheless, involve problems with quality, regularity, reliability and cost-efficiency. The private services are not regulated and they are very costly. The surface and groundwater sources contain pathogens, heavy metals and other chemicals, and also have a great risk of drying out (Heinonen, 2005).

Over the last years, the access to piped water, sanitation and drainage in the poor communities has nevertheless improved (SUPF, 2003), mainly

thanks to the efficient work of PPWSA, community organizations and NGOs (Chapter 9). However, the sustainability of this development is endangered since many of the poor communities have been relocated to areas with poor infrastructure (STT, 2006; COHRE, 2009). The previous relocations have been weakly planned, and thus created new problems related to infrastructure and poverty, as presented by the Dey Krahorn case (Chapter 8.3.3).

As illustrated by the author's studies, besides reducing access to public services, the unsuccessful relocations have damaged the community organizations and their attempts to

influence development. In addition, the previous relocations and evictions have undermined the belief in the abilities of the authorities to address the problems of the poor and to enhance poverty reduction (Chapter 8). This may hinder future city development; while the population of the city continues to grow significantly and the three outer districts are to be further developed, the role of the poor communities becomes crucial. Strong participation and community activism is needed to develop the numerous poor communities on the outskirts, e.g. through piped water connections (Chapter 9).

The community organizations are still rather weak and fragile in Cambodia (Chapter 3.2.1, 3.2.3 and 8). However, the author sees water supply development as one way of supporting community organizations. Enhancing togetherness within and between the poor communities and more effective empowerment will increase the capacities of the communities. Furthermore, improved access to water supplies will sustain health, employment opportunities and thus reduce poverty (Chapter 8.4 and 9.2). However, the development of poor communities' physical and social structures calls for a change in the current operational model of the city. There is a great need for assisting and funding the communities and giving them a space to interact with the decision-making of the city.

10.6.1 To sum up: What is the role of water resources in poverty reduction?

Water resources have two tails in poverty reduction of Cambodia: rural and urban. The rural tail is related to the livelihoods of the poor inhabitants. Water resources play a crucial role in the continuity of traditional income generation, particularly in the Tonle Sap Region. Water affects the wellbeing of the region's people and their abilities to tackle poverty. Changes in water resources may hamper the possibilities of the people to live in the rural areas and increase the migration pressure from the region. The narrow scope and exclusiveness of water resources management that is taking place in the region may thus lead to irreversible costs in the future; the situation in the rural areas may turn unbearable and urban growth may reach unsustainable levels.

The urban tail of water resources in poverty reduction is linked to safe water supplies, sanitation and drainage. Again, water plays a critical role in decreasing poverty through its connections with income, health, education and housing. The poor settlements, particularly in the outskirts of Phnom Penh, still face many obstacles in accessing safe water supplies and proper sanitation and drainage. These problems are derived from the insufficient capacity of the authorities to meet the increasing needs of the city's poor, the absence of an authoritative intermediary that would support the poor communities to overcome the various hindrances to community development, and the continuing relocations that have pushed informal dwellers from served to non-served areas.

Moreover, the relocations and especially the low empowerment of the poor people in the city development have undermined the trust in authorities and hindered community activism. This, in the long run, may create further obstacles to poverty reduction and infrastructure development; in the future the role of poor communities becomes crucial to the development of water services and meeting the MDGs in Phnom Penh.

11 Conclusions

11.1 RURAL AND URBAN PERSPECTIVES ON WATER RESOURCES, POVERTY, & PARTICIPATORY DEVELOPMENT

The following points answer the six research questions of this study. These topics are more broadly elaborated in the preceding chapters 10.1-10.6.

RQ I. What are the components of poverty in the Tonle Sap Region?

Poverty in the Tonle Sap Region can be understood through the following five elements: income, health, empowerment, education and security. These elements are largely related to the livelihood opportunities and development prospects of the inhabitants. Farming, fishing activities, cattle breeding, collection and small-scale trading offer a livelihood for most of the poor rural dwellers in the region. However, these livelihoods face many difficulties today and increasingly in the future.

Many of the obstacles faced have roots at the national and regional level. The future water resources development plans, low education and skills, limited access to capital and natural resources, and powerlessness in terms of participation in decision-making have caused many of the problems. As a consequence, these elements also involve numerous possibilities to support the inhabitants to carry on with their traditional livelihoods, find a new source of livelihood and tackle the deep poverty of the region.

RQ II. Does recent water resources management enhance poverty reduction?

There is a great contradiction between the regional modern and the traditional local needs in the Mekong Region. For instance, small-scale

water development projects such as small-scale irrigation, flood control and irrigation schemes can enhance the livelihoods of the local dwellers in the Tonle Sap Lake Region. By contrast, the large-scale hydro-power development projects, which as such can be economically advantageous to Cambodia, could carry multiple risks to the local livelihood structure within the same region. Due to these contradictions and the far-reaching impacts of water resources development, the region's water resources management is in a crucial position when aiming at equal poverty reduction. Water resources management calls for continuous and broad strategies, wide stakeholder dialogue as well as information sharing related to the proposed plans and their cumulative consequences.

Today, the region does not have an actor that could protect the interests of the various stakeholders and perspectives and analyze the impacts of a range of development plans that are under consideration in the region. The recent initiatives of the Mekong River Commission in terms of implementing an integrated approach and stakeholder participation, nonetheless, are good starting points for socially just decision-making and equal poverty reduction. However, putting the strategies into action takes time because of the poor skills and the limited space of civil society as well as the top-down decision-making structures of the member countries.

Hence, reaching equal poverty reduction in the region seems unlikely in the near future. For the moment, the participation of local people in the work of MRC and the other development organizations may, nonetheless, improve the living standards of the poor locally and to some extent make the local concerns heard in regional decision-making.

RQ III. How does rural-urban migration change poverty?

Since future migration tend to follow the current migration patterns, the deepening rural poverty in the Tonle Sap Region increases migration pressures especially to Phnom Penh. However, the capital city does not have expansive employment opportunities to offer for the mushrooming migrants. As a result, the rural migrants often end up working in the informal sector. The sector is, nonetheless, characterized by low and insecure income, poor working conditions and non-existent social protection that hinder the possibilities to earn a decent income and remit money to rural areas. As a consequence, migration does not always provide better opportunities for the migrants and their rural families. Given that the employment opportunities of the migrants in the city are limited and only relying on a few sectors, the buffer income that migration offers for the rural families is not sustainable in the long term. In addition, the increasing pool of migrants in Phnom Penh narrows the niche of the present poor in the employment sector.

The rural areas of the country are experiencing an outflow of middle-class, educated young migrants. These migrants move to the city to stay and are wanted there for supporting the urban development. On the other hand, these migrants would be crucial for rural development and poverty reduction. Presently, urban areas draw educated people out of the rural areas, while the poor migrants with small capital eventually return to their villages. If this development continues, how is the country able to reduce poverty and achieve equal economic growth? There are already signs that the rural areas of Cambodia are far behind the urban areas in terms of social and economic development, and the rural-urban migration, which is a coping strategy for many rural families, does not seem to resolve this problem.

RQ IV. What are the obstacles to poverty reduction in Phnom Penh?

Social exclusion, in terms of employment and housing, is the major obstacle to poverty reduction in Phnom Penh. Due to the unsatisfactory

employment conditions in the informal sector and the inappropriate policies that have further hindered the employment opportunities, the poor informal workers have not been able to improve their living standards despite their hard work. The limited spaces for income generation and secure housing decrease earnings and exclude the poor from decision-making. Giving space to the poor to carry out their work increases their opportunities to earn an income and rise from the poverty trap. To remove these barriers and to secure the income of the poor families, there is a great need for services that can support, monitor and regulate informal employment. However, setting sound regulations calls for deeper understanding about the sector: needs, obstacles and behaviour.

Decent income is a major question in poverty reduction. Yet, its weight has not been addressed in the current city development activities, such as the relocations. Consequently, these activities have not been able to reduce poverty but have created new problems in the even more challenging outskirts areas of the city. These relocation areas may in the long run become new poverty pockets in Phnom Penh and thus become barriers to further poverty reduction.

RQ V. How is participatory development supported in Phnom Penh?

Recently, many initiatives to support urban poor communities and participatory approaches have been introduced in Phnom Penh. However, these approaches have not been coherent, effective or broad enough. The emerging grass root activism in the city has thus not found a counterpart at the upper level of decision-making. As a result, the community organizations have not been able to participate in the development discussions fully and the city has seen many tragedies due to blocked stakeholder dialogues.

These disparities are a result of inefficient authorities and policies to address community development. Currently, there is no authority that could efficiently support community organizations and facilitate the conflict situations that the present city development and poorly planned relocations

are creating. Moreover, the authorities need to work in closer cooperation with the community organizations and to include the perspectives of the poor into the policy framing and performance. There also is a great demand for new channels of influence in terms of both governance and civil society. At present, the authorities in Phnom Penh are not capable of supporting community development and participation at full capacity. Accordingly, equal poverty reduction is not to be achieved in the near future.

RQ VI. What is the role of water in poverty reduction?

Water resources have two tails in poverty reduction in Cambodia: rural and urban. The rural tail is related to the livelihoods of the poor inhabitants. Water resources play a crucial role in the continuity of traditional income generation, particularly in the Tonle Sap Region. Water affects the well-being of the region's people and their ability to tackle poverty. Changes in water resources may hamper the possibilities of the people to live in rural areas and intensify the pressure for migration out of the region. The narrow scope and exclusiveness of water resources management that is taking place in the region may thus lead to irreversible costs in the future; the situation in the rural areas may become unbearable and urban growth may reach unsustainable levels.

The urban tail of water resources in poverty reduction is linked to safe water supplies, sanitation and drainage. Again, water plays a critical role in decreasing poverty through its connections with income, health, education and housing. The poor settlements, particularly in the outskirts of Phnom Penh, still face many obstacles in accessing safe water supplies and proper sanitation and drainage. These problems are derived from the insufficient resources of the authorities to meet the increasing needs of the city's poor, the absence of an authoritative intermediary that would support the poor communities to overcome the various hindrances to community development, and the continuing relocations that have pushed informal dwellers from served to non-served areas.

Moreover, the relocations and especially the low empowerment of poor people in city development have undermined the trust in the authorities and hindered community activism. This, in the long run, may create further obstacles to poverty reduction and infrastructure development; in the future the role of poor communities becomes crucial to the development of water services and meeting the MDGs in Phnom Penh.

11.2 LIMITATIONS OF THE STUDY AND FURTHER RESEARCH NEEDS

This study analyzes the strategies, roles and possibilities of the poor to enhance poverty reduction in Phnom Penh and in the Tonle Sap Region. The focus of this study is specifically on the grass root observations. Hence, the participatory studies conducted by the author, among the 134 urban and 113 rural poor, make up the majority of the observations presented in this study. The study examines the linkages of water resources, poverty and participatory development. Therefore, especially the strategies that are crucial for poverty reduction through the lenses of water resources management are highlighted.

Given that the presented research is largely based on the observations of the local dwellers and the study has a special focus on water resources, this thesis does not aim to cover all the possible strategies that the Cambodian poor have to reduce poverty. In contrast, this study presents and analyzes the most critical strategies that emerged in the interviews and discussions in the eleven study communities as well as in the experts' interviews. Through the presented selection of organizations the dwellers participating in this study have been able to augment community development and eventually enhance poverty reduction (Table 8). The organizations and strategies presented are seen as the most crucial ones for equal poverty reduction in the study regions, and thus their capabilities and requirements need to be studied further and addressed in the future.

The outcomes of the participatory studies are combined with supplementary information

from a series of reviews, data analyses and expert interviews. The results of the participatory studies conform fairly well to the other information available. This supports the objectivity and reliability of the studies performed. Accordingly, it can be concluded that this research work conveys accurate information about poverty and participation in Phnom Penh and in the Tonle Sap Region.

The research work conducted may, however, have been subject to bias. The participatory studies, which are as such repeatable, carry some prejudices. The observations gathered through the discussions present the views of the participating individuals. Therefore, the presented opinions greatly depend on the participants as well as their ability to represent the overall views of the community; another group of participants might have reported different observations of poverty and participation. For instance, the opinions about the activities and willingness of the Municipality of Phnom Penh to support the poor communities were negative among the dwellers in this study. However, if the sample had included an ex-chief of the Dey Krahom Community, the truth might have been different. These possible biases were, nonetheless, acknowledged during the sample selection and the groups were composed as heterogeneous as possible (more information about the methods and their limitations can be found in Chapter 4.2).

Moreover, some bias may have occurred due to the deficiency of the existing data sources in Cambodia. Therefore, this study has used some relatively old sources. Using old migration studies, for instance, has excluded the recent changes in migration flows and thus might have introduced the possibility of prejudice to the results. However, the current migration flows tend to follow the previous migration patterns and thus the analyses of the migration flows from 1993 to 1998 are considered relevant data sources for this study. The latest population census 2008 will produce new information about the migration flows in 2010. But since the analytical frame has remained somewhat similar to the ones used in previous

studies, the information gained will still remain rather limited.

In order to support decision-making on equal poverty reduction in Cambodia, more information is needed. During the research process the author identified several information gaps particularly related to migration, the informal sector and community organizations in Cambodia. Further information about the following research topics would be crucial when aiming to tackle inequality and poverty in the Tonle Sap Region and in Phnom Penh:

Migration:

- impact of the present water resources development plans on livelihoods, population movements and rural push
- influence of climate change on livelihoods and migration
- current status of seasonal, circular and permanent migration
- role of urban pull among the young migrants
- influence of infrastructure improvements on migration (e.g. the media and road access)
- social constraints of migration (e.g. gender, social networks, culture)

Informal sector:

- role of informal sector in the country's economy
- general statistics of the informal workers (e.g. age, gender, education, domicile, housing)
- general statistics of the informal jobs
- (e.g. type of employment and place of income generation)
- relationship between informal sector and poverty (e.g. encountered problems and needs)

- strategies to address poverty caused by the sector (e.g. regulations, policies, authorities)

Community organizations:

- general statistics of community organizations (e.g. type, household coverage, structure, encountered problems)
- ways to support togetherness in the communities and strengthen the community organizations (e.g. education, empowerment, development projects, PRA-techniques)
- community organizations and their general partners in development work
- ways to enhance community participation in development work (e.g. formal governmental structures, municipality of Phnom Penh, MRC, other development organizations)

11.3 WRAPPING UP: CAN THE POOR ENHANCE POVERTY REDUCTION IN THE TONLE SAP REGION AND PHNOM PENH?

At the grass root level, the community organizations, especially the Community Development Committees, have a major role in reducing poverty (Table 8). In many urban and rural communities, the Development Committees have actively worked for various development projects that have supported poverty reduction e.g. through infrastructure improvements. The community organizations are also closest to the community members and thus the most effective mechanism to foster the participation of poor people.

However, despite their competence, the community organizations are still quite fragile. The organizations require assistance in building trust within and between the communities and in improving channels of influence to the upper level of decision-making. The strong community organizations are essential to enhancing stakeholder participation in the administrative

processes and achieving poverty reduction in both the urban and rural areas of the country.

The fragility of the community organizations is also seen in the weakness of community saving groups. Even though saving groups provide essential buffer income for many poor families and hold great potential for community development, their contribution to development and poverty reduction frequently remains limited. Overall, there is a great need for comprehensive micro-credit programmes to provide initial capital for the poor dwellers in both Phnom Penh and the Tonle Sap Region.

Furthermore, because of the limited access to the media, education, and know-how, the poor dwellers need information and assistance in finding new, sustainable income generation opportunities. For instance, in the Tonle Sap Region the villagers need help in finding new sources of income, since the traditional livelihoods are threatened by several factors e.g. water resources development, climate change, and land use conflicts. By contrast, the needs of the poor dwellers in Phnom Penh are largely related to tackling informality and finding new decent income sources.

Non-governmental organizations also play a major role in poverty reduction in both the Tonle Sap Region and Phnom Penh (Table 8). Several NGOs support communities in physical and psychological development. They also facilitate dialogues related to community improvements and thus at some level empower the poor communities to become involved in development work. The efforts of the NGOs have, nonetheless, remained project-based and therefore the organizations seldom are able to push the local problems on top-level decision-making. Consequently, there is a great call for broader collaboration between the NGOs and for ways of escalating the activities beyond the local level.

In addition to the numerous NGOs, the urban poor communities are supported by the Urban Poor Development Fund. The organization supports partnerships of poor communities and other

stakeholders, and offers funding for community development actions. Even though UPDF is a foremost step towards people-centred planning, the organization has limited capabilities to meet the needs of the hundreds of poor settlements in Phnom Penh and to sustain people-centred decision-making under the high development pressures.

In order to support the poor, urban communities with full capacity, UPDF needs further resources in terms of staff and skills. The organization also needs to find more effective ways to improve its role as an objective intermediary in the development discussions. Similar problems are also hindering the activities of the Municipality of Phnom Penh in reducing poverty and increasing participatory development. The work of the authority suffers from low capacities, sound policies and coherent operation models to tackle the problems of informality, housing and empowerment that the city is increasingly confronting.

The Tonle Sap Region is also under great development pressure and thus surrounded by multiple development programmes. Many of these organizations aim, among other development objectives, to reduce poverty and to empower local people. However, the high number of development programmes and the diverse ways to empower civil society might confuse the local dwellers as well as undermine their motivation to participate. Habitually these programmes tend to empower same, rather exclusive, groups that are used to communicating with development programmes. These groups cannot present the opinions of the whole community. These exclusive groups do not usually include the poorest or richest in the community and thus cannot target the ones in the most need or, on the other hand, those that have the most power at the community level. Moreover, the groups rarely empower villagers through the formal bureaucracy structures (e.g. Community Development Committees) and thus do not support the ongoing decentralization process.

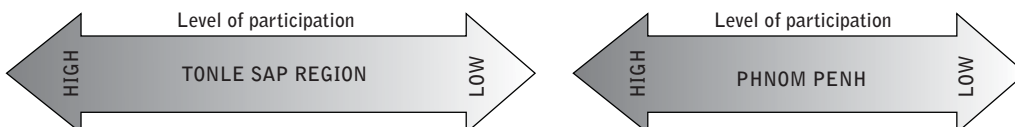
In order to coherently empower local people and to achieve poverty reduction in the Tonle Sap

Region, the development programmes, such as the Mekong River Commission, must try to support the common organizational structures, e.g. development committees, and empower people through these recently established organizations or find relevant stakeholder groups that could present the views of the wider group of civil society objectively. Just repeating the participatory studies within the same group that other development organizations have addressed, cannot present the views of the wide group of the dwellers in the communities. Moreover, there is a great need for collaboration between the various overlapping development organizations and programmes in the region.

Overall, improving the possibilities of the poor to enhance poverty reduction in Phnom Penh and in the Tonle Sap Region calls for several changes at both the community and decision-making levels:

- Communities and community organizations are still quite weak. They need assistance in strengthening their feeling of togetherness and, in order to create a critical mass, new ways to collaborate with other communities. There is also a need to find new, coherent channels to participate in the development programmes and especially in the general development discussion.
- The development organizations and the non-governmental organizations of the study regions must find ways to collaborate more closely and together try to reach the higher level of decision-making and widen the civil society's channels of influence. To reach this level, the project-based and narrow activities of the organizations need to change into more broad and general development strategies.
 - The various development organizations, such as the Mekong River Commission, that are working for the development of the region's water resources need to find methods for co-operation, information sharing and new channels to empower local

Table 8 Selected organizations through which the poor dwellers can enhance poverty reduction



ORGANIZATION	TYPE OF DEVELOPMENT	IMPACT IN POVERTY	FACED OBSTACLES	FUTURE NEEDS
Community Development Committees	Community development incl. roads, schools & drainage	Income, security, health & education	Mistrust & low co-operation	Strengt, support & new channels to influence
Non-governmental Organizations	Community development: physical & psychological	Income, health, education & empowerment	Project-based, local & narrow	Reach national level & increase collaboration
Saving Groups	Supporting dwellers to overcome sudden expenses	Buffer income to tackle income loss, illness, etc.	Limited capacity & mistrust	Strenght, extension, & togetherness
Other Development Organizations	Various community development activities: physical & psychological	Income, health, education & empowerment	Project-based, local & narrow	Co-operation & long-term projects
Community Organizations e.g. Fisheries Groups	Supporting income generation & empowerment of locals	Income, security & empowerment	Inclusivity & low authority	Exclusivity, support & capabilities
Programmes of MRC	Empowering locals in the various development work	Income, security & empowerment	Project-based & low authority	Co-operation, support & capacities
National Mekong Committee	Presenting national & local needs in water resources management	Empowerment & security	Inclusivity & low authority	Exclusivity, support & capabilities

ORGANIZATION	TYPE OF DEVELOPMENT	IMPACT IN POVERTY	FACED OBSTACLES	FUTURE NEEDS
Community Development Committees	Community development incl. roads, schools & drainage	Income, security, health & education	Mistrust & low co-operation	Strengt, support & new channels to influence
Non-governmental Organizations	Community development: physical & psychological	Income, health, education & empowerment	Project-based, local & narrow	Reach national level & increase collaboration
Urban Poor Development Fund	Supporting partnerships & funding community development	Co-operation, authority & empowerment	Low capacities & authority	More staff, skills, collaboration & authority
Saving Groups	Supporting dwellers to overcome sudden expenses	Buffer income to tackle income loss, illness, etc.	Limited capacity & mistrust	Strenght, extension, & togetherness
Other Development Organizations	Various community development activities: physical & psychological	Income, health, education & empowerment	Project-based, local & narrow	Co-operation & long-term projects
Municipality	Supporting public participation, dialogies & funding	Income, empowerment & security	Low capacities & lack of policies	More fund, personnel sound policies & collaboration

people, particularly the poorest ones. In addition, they need to enhance their authority in the member countries in order to have more influence on the development plans of the countries.

- At the national and city level, there is a need to enhance equal poverty reduction by specific authorities and sound policies, and by implementing strategies to address the various problems related to poverty, especially the ones tackling informality and empowerment.

Furthermore, to sustain the previous efforts, radical development in the overall democracy and decentralization process in Cambodia is required.

To wrap up, can the poor enhance poverty reduction in the Tonle Sap Region and in Phnom Penh? There are various activities through which the poor dwellers in the Tonle Sap Region and in Phnom Penh can amplify participation and enhance poverty reduction (Table 8). Many of these strategies, however, are rather narrow, project-based and fragile, and thus have only limited impacts on the overall poverty reduction and level of empowerment. These activities often require assistance from a development organization such as NGOs, which shows that the general bureaucratic structures in Cambodia do not rationally support the empowerment of civil society. Consequently, the possibilities of the poor people in the study regions to enhance poverty reduction remains at the grass root scale and the results are rather local and limited. Nor the current activities support the poor to actively participate in development work, not to mention achieving self-development. Community activism faces a lack of competent authorities and sound policies to empower civil society and mistrust and weaknesses within the communities, thus hindering their ability to reach the highest level of influence.

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INDIVIDUAL INTERVIEWS (ALPHABETICAL ORDER)

Mrs Anette Arndt	Adviser, GTZ
Mr Bao Vuthy	Field Officer, CEDAC
Mr Beng H. S. Khemro	Deputy Director General, Ministry of Land Management
Mr Chap Sotharith	Executive Director, Cambodian Institute for Cooperation and Peace
Mrs Christel Thibault	Researcher, Université de Paris
Mr Christian Cheron	Counsellor, Ministry of Agriculture, Forestry and Fisheries Cambodia
Mrs Eeva Härmä	Analyst, Ministry of Environment Cambodia
Mr Ek Sonn Chan	General Director, PPWSA
Mrs Heta Annika Tenno	Water and Sanitation Specialist, UN-HABITAT Cambodia
Mr Hong Panharith	Director, ASEAN Documentation Centre Cambodia
Mr Jan-Willem Rosenboom	Country Team Leader, Water and Sanitation Program
Mr John Dore	Coordinator, Regional Water & Wetlands Program, IUCN
Mrs Joy Grant	Urban Planner & Environmental Management Advisor, URC
Mr Juha Sarkkula	Team Leader, MRC/S/WUP-FIN Tonle Sap Modelling Project
Mr Keo Chenda	Program Manager, Enfants & Développement
Mr Kong Kosal	Lecturer, Royal University of Fine Arts Cambodia
Mr Kong Socheat	Project Manager, Church World Centre
Mr Marko Keskinen	Researcher, Helsinki University of Technology
Mr Matti Kummu	Researcher, Helsinki University of Technology
Mr Meas Kimseng	Coordinator, Sahmakum Teang Tnaut
Mr Mickey Sampson	Country Director, RDIC
Mr Olli Varis	Professor, Helsinki University of Technology
Mr Prak Angkeara	Deputy Director, MLMUPC
Mrs Rena Sugita	Researcher, Mekong Watch
Mr Samreth Sok Heng	Coordinator, URC
Mr Shibanuma Akira	Expert, National Institute of Statistics, Ministry of Planning Cambodia
Mr Sok Visal	Communication Officer, UPDF
Mr Sokhum A.	Chief, Municipality of Phnom Penh
Mr Somethearith Din	Habitat Programme Manager, UN-HABITAT Cambodia
Mrs Somsook Boonyabanha	Director, CODI
Mr Supphawut Manochantr	Assistant General Secretary, Duang Prateep Foundation
Mr Sour Sethy	Researcher, Royal University of Phnom Penh
Mrs Susan Novak	Senior Social Development Specialist, Mekong River Commission
Mrs Susmita Dasgupta	Senior Economist, World Bank
Mrs Thipparat Noppaladarom	Assistant Director, CODI
Mr Tommi Tenno	Natural Resources Management Officer, FAO
Mr Yim Sambo	Officer, Ministry of Rural Development Cambodia

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- TKK-WD-07** Can the Poor Enhance Poverty Reduction? Rural and Urban Perspectives on Water Resources, Poverty & Participatory Development in the Tonle Sap Region and Phnom Penh, Cambodia
Ulla K. Heinonen

CAN THE POOR ENHANCE POVERTY REDUCTION?

Rural and Urban Perspectives on Water Resources, Poverty & Participatory Development in the Tonle Sap Region and Phnom Penh, Cambodia

Ulla K. Heinonen

Dissertation for the degree of Doctor of Science in Technology

In recent years, Cambodia has seen a significant economic growth. However, this development has not reached the poorest dwellers, resulting in escalating inequality. The Tonle Sap Region is one of the poorest regions in the country. The livelihoods of the region's poor are greatly dependent on water resources. The livelihoods are thus vulnerable to possible changes in water resources associated with the current development plans. By contrast, Phnom Penh, which is the main destination for the region's migrants when searching for a better level of living, is struggling with increasing poverty, informality and inequality.

Participatory development is considered crucial when aiming at equal poverty reduction. Consequently, this study analyzes the strategies used by the poor to participate in decision-making and to enhance poverty reduction in urban and rural areas of Cambodia. Furthermore, the study analyzes the role of water resources and migration in the country's poverty reduction. The study focuses especially on grass root level observations. Hence, the participatory studies and expert interviews undertaken serve as a major source of information for the research.

This study identifies various strategies used by the poor for participating and enhancing poverty reduction. Many of these, however, are rather narrow, project-based and fragile, and thus have only limited impacts on general poverty reduction and empowerment in the study regions. To conclude, poverty reduction is hindered by the lack of competent authorities and sound policies to address poverty, inequality and informality as well as mistrust and weaknesses within the communities. Improving the possibilities of the poor to enhance poverty reduction calls for several changes at both the community and decision-making level.