



**Master's thesis
Planning Geography**

**WATER MANAGEMENT IN CAMBODIA
– RESOURCES AND RELATIONS**

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January 2007**

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ការគ្រប់គ្រងទឹកនៅកម្ពុជា — បទនាង និងទំនាក់ទំនង

ទឹកមានម៉ឺនពិសេសមួយ គឺជាប្រភពនៃជីវិត និងជីវភាពរស់នៅនៅកម្ពុជា។ ស្របពេលជាមួយគ្នា កសិកម្ម ការសេវាទំនាក់ទំនងប្រើប្រាស់ព្រៃឈើ ឧស្សាហកម្ម វារីអគ្គិសនី ការធ្វើទារ៉ាចរណ៍ និង ទេសចរណ៍ កំពុងប្រកួតប្រជែងគ្នាដំណើរយកធនធានទឹក។ នៅពេលសិទ្ធិ និងការទទួលខុសត្រូវ ដែលទាក់ទងទៅនឹងទឹកដ៏មានប្រយោជន៍និងមិនចិញ្ចឹម មិនត្រូវបានលាស់ទោស ទំនាស់កើតមានដោយ ងាយ។ ដូច្នោះ ការគ្រប់គ្រងទឹកគឺជាការចាំបាច់ ដើម្បីរៀបចំផែនការ និងត្រួតពិនិត្យការប្រើប្រាស់នូវ ធនធានទឹក។

បរិបទអន្តរជាតិត្រូវបានពណ៌នានូវលក្ខណៈដោយឡែក ដោយទន្ទេមេតង្គ ដែលហូរកាត់តាមប្រទេស ជំនួសគ្នាមួយ។ ប្រទេសទាំងអស់នោះ មានតួនាទី និងផលប្រយោជន៍ខុសគ្នាដោយផ្អែកទៅតាម តំបន់ភូមិសាស្ត្ររបស់ខ្លួន។ ឡាវទៀត ទឹកគឺជាឧបករណ៍មួយសំរាប់កិច្ចសហប្រតិបត្តិការ និង សន្តិភាព។ នៅថ្នាក់មូលដ្ឋាន ធនធានទឹក និងជីវភាពរស់នៅដែលពាក់ព័ន្ធ បង្កើតនូវមូលដ្ឋាន សំរាប់សុខុមាលភាព និងក្នុងការអនុវត្តទំនាក់ទំនង សំរាប់ធនធានសេដ្ឋកិច្ច និងធនធានមនុស្ស។ ទាំងអស់នេះគឺជាសេចក្តីត្រូវការមុនគេបង្អស់សំរាប់ប្រជាជនមូលដ្ឋាន ដើម្បីចូលរួមនិងការពារនូវ សិទ្ធិរបស់ពួកគេ ក្នុងការប្រើប្រាស់ទឹក និងវិធានដើម្បីកសាងសមត្ថភាពសំរាប់ដំណើរការរបស់រដ្ឋ។

ប្រទេសកម្ពុជាតឹងផ្អែកយ៉ាងខ្លាំងទៅលើទន្ទេមេតង្គ។ ប៉ុន្តែ ប្រទេសកម្ពុជាមានប្រវត្តិសាស្ត្រមិន ទៀងទាត់ ដែលឥទ្ធិពលរបស់វាអាចត្រូវបានគេមើលឃើញ ឧទាហរណ៍ដូចជា រចនាសម្ព័ន្ធប្រជាជន នៅក្នុងពេលមួយដែលស្ថាប័នសាធារណៈត្រូវបានផ្អាកជាបណ្តោះអាសន្ន ហើយការទុកចិត្តគ្នាត្រូវបាន ធ្វើឱ្យចុះខ្សោយ នៅក្នុងសង្គម។ នៅពេលដែលក្រាមតែសរស្សីឆ្នាំ ១៩៩០ បានទាមទារនូវលក្ខណៈ ស្មើភាពបង្អួចប្រទេស ប្រទេសកម្ពុជាមានស្ថានភាពទន់ខ្សោយនៅក្នុងចំណោមប្រទេសតាមដង ទន្ទេមេតង្គ។

ទិក្ខុបបទអនុបណ្ឌិតនេះ វិភាគនូវក្រុមផលប្រយោជន៍នៃការប្រើប្រាស់ទឹក ថ្នាក់អន្តរជាតិ ជាតិ និងមូលដ្ឋាន ទំនាក់ទំនងអំណាច និងធនធានរបស់ខ្លួនដែលជះឥទ្ធិពលដល់ការគ្រប់គ្រងទឹក។ រដ្ឋ

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សាលាសិក្សាស្រី ហែលស៊ីនកិ ខោយកង្វាតូស៊ីសាស្ត្រ

ត្រូវបានគេមើលឃើញថាជាអ្នកដើរតួរមួយដ៏សំខាន់ ពីព្រោះខ្លួនមានការទទួលខុសត្រូវផ្លូវការនៃធន
ធានទឹក និងការសំរេចចិត្តរវាងអ្នកដើរតួផ្សេងៗទៀត ។

នៅក្នុងការប្រើប្រាស់ទឹក ត្រូវបានផ្តោតទៅលើផលិតកម្ម ក្នុងការគ្រប់គ្រងត្រូវបានផ្តោតទៅលើ
ការធ្វើផែនការ និងក្នុងទំនាក់ទំនងអំពីការត្រូវបានផ្តោតទៅលើធនធាន។ ធនធានទឹករបស់កម្ពុជា
ត្រូវបានគេមើលឃើញថាមាន ទន្លេមេគង្គ និងបឹងទន្លេសាប។ រយៈពេលនៃការសិក្សាពីរវាង ឆ្នាំ
១៩៩១ និង ឆ្នាំ ២០០៦ ។ ឯកសាររួមមាន ការសំរេចចិត្តកំណត់កម្រិតទឹកដែលត្រូវបានប្រមូល
ក្នុងរយៈពេលនៃរដូវក្តៅនៅប្រទេស ហ្វាំងឡង់ និងនៅកម្ពុជា ក៏ដូចជាពិចារណា និងការសិក្សា
ស្រាវជ្រាវនាពេលមុនៗ ។

លទ្ធផលនៃការសិក្សាបង្ហាញថា រដ្ឋនៅថ្នាក់មជ្ឈឹម មានការលំបាកក្នុងការសំរេចចិត្តសកម្មភាព
របស់អ្នកដើរតួផ្សេងៗគ្នា ដោយសារធនធានរបស់ខ្លួនមានលក្ខណៈគុណភាព និងទំនាស់ផ្ទៃក្នុង ។
មេរៀននៃប្រវត្តិសាស្ត្រ និងប្រយោជន៍ដាច់ណាត់របស់អង្គការ ធ្វើឱ្យមានការលំបាកក្នុងការរៀបចំ
ផែនការ និងពង្រឹងច្បាប់ ។ ប៉ុន្តែ សង្គមស៊ីវិល និងអ្នកគាំទ្រអន្តរជាតិកំពុងសកម្ម និងមានលទ្ធភាព
ជាច្រើន សំរាប់បណ្តាញសហប្រតិបត្តិការថ្មី ។

ពាក្យសំខាន់ៗ: មេគង្គ កម្ពុជា ការគ្រប់គ្រងទឹក ធនធាន ការទទួលខុស

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ABBREVIATIONS

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CARERE	Cambodia Area Rehabilitation and Regeneration project
CCC	Cooperation Committee for Cambodia, coordinating NGOs
CNMC	Cambodian National Mekong Committee
CPP	Cambodian People's Party, political party
EU	European Union
FUNCINPEC	Political Party, National United Front for an Independent, Neutral, Peaceful, and Cooperative Cambodia (<i>Front Uni National pour un Cambodge Indépendant, Neutre, Pacifique, et Coopératif</i>)
GMS	Greater Mekong Subregion programme of ADB
INGO	International non-governmental organization
IWRM	Integrated Water Resource Management, a theoretical framework to water management
Khmer Rouge	Extremist communist regime in Cambodia (1975-78)
MDG	Millenium Development Goals
MRC	Mekong River Commission
NGO	Non-governmental organization
NMC	National Mekong Committees
PRK	People's Republic of Kampuchea (1979-1989)
SOC	State of Cambodia, Cambodia (1989-1993)
SWOT	Analysis of the strengths, weaknesses, opportunities and threats
TKK	Helsinki University of Technology (<i>Teknillinen korkeakoulu</i>)
TSBR	Tonle Sap Biosphere Reserve
UN	United Nations
UNDP	United Nations Development Programme
UNTAC	United Nations Transitional Authority in Cambodia (1992-1993)
WUP-FIN	Finnish modelling project related to Water Utilization Programme of MRC
MOWRM	Ministry of Water Resources and Meteorology
GDP	Gross Domestic Product

1.

INTRODUCTION

*‘Cambodia is like a play with too few actors,
all of whom have to play several roles.’*

Om Radsady, a former parliamentarian,
who was murdered in 2003 (Pietarila 2006).



FIGURE 1.1 Map of Cambodia (adapted from UN 2006a; EIA Ltd. 2004).

Water resources are essential for the socio-economical performance of Cambodia. Though, long-term planning does not seem to be a strong element in Cambodian water management which according to Mareth et. al. (2001), lacks any province-wide land use policy or master plan. In addition, the voice of the local water users seems to be weak (Sokhem & Sunada 2006:414).

In this study I am mainly interested in the resources of the water management at the central state level in Cambodia. This means analysis of the abilities of the ministries and other governmental bodies to coordinate between the national, international and local levels of water management which includes the activities to affect the condition

of the water for production. It will be done by outlining interest groups and estimating their relative power.

The field trip to Cambodia organized by the Department of Geography (University of Helsinki) in 2003 was the starting point for my interest in Cambodia in general. I got interested in the background reasons of the above mentioned planning limitations of Cambodia and ended up concentrating on power relations of the interest groups. The decision of the Ministry for Foreign Affairs of Finland to strengthen cooperation in the Mekong region and consideration to take Cambodia as a long-term development cooperation partner (UM 2006:5) further inspired to tackle this question.

Water management of the Mekong Region has been studied a lot (for example by Öjendal 2000; and the researchers at the Water Resource Laboratory of the Technical University of Helsinki, TKK). There are also studies about water management in Cambodia but the situation is changing all the time e.g. in terms of participation.

Power relations and diversity in the interests in planning have been recognized for example by Flyvberg (1998) in Denmark, by Öjendal (2000) at the Mekong level, and by Pfeffer (1981) from a more theoretical viewpoint. Still, the studies have not particularly focused on the reasons for difficulties in Cambodian planning.

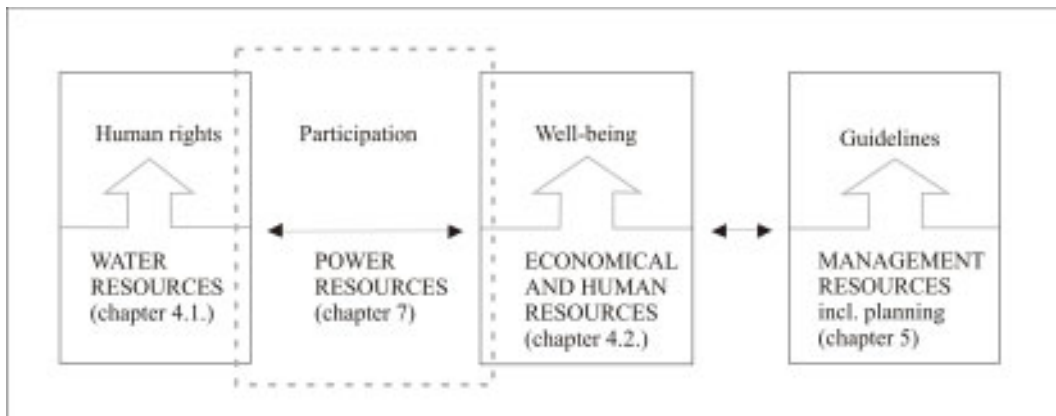


FIGURE 1.2. Framework of the study. Water resources, economy or subsistence as well as planning depend on each other in Cambodia. The upper part shows the desirable result in each of the areas. However, power distribution (focus of chapter 6 and 7) defines how large part of population can access the resources for subsistence, even how extensive input the society can give to the planning process in terms of physical and human resources.

Geography seems to be a good approach to power relations. Geography is specialized in regional distribution and relations of historical, cultural, environmental, political and social factors. Planning geography - better called as 'urban and regional planning' - uses this tool box for presuming what should be done now to reach the aimed

future situation - and what would be the aimed future situation where all the factors listed above would be in balance.

The study proceeds from chapter 2 which introduces the point of view of this study: the materials, methods and research questions to chapter 3 about the regional context. It continues in chapters 4 and 5, in both of them from general experiences to the answers of the research questions concerning Cambodian situation. In these chapters, water as a resource base and as an object of management is discussed according to the logic of the FIGURE 1.2. In chapters 6 and 7, the power relations of the society are outlined by the help of the water management. The results in these chapters have been summarized in conclusions (chapter 8) and the future expectations are discussed (chapter 9).

The main material for the study is from the semi-structured interviews I conducted during summer 2006 in Finland and Asia and from Water Voice Project which is a database of opinions, comments, and ideas on water issues from grassroots people. In addition, literature has been used.

The key concepts: *Mekong, Cambodia, water management, resources, participation*

2. MATERIALS, METHODS AND RESEARCH QUESTIONS

The theme is approached through interviews and literature which seemed to be the most natural way to take part in the current discussion. Statistics and maps probably could not have reached the topic that well, nor do reliable statistics and maps about Cambodia exist in such regional scales and in such extent that would have been needed.

The problem of relative lack of academic or otherwise documented information has been remarked by e.g. Öjendal (2000:39-41). Öjendal mentions also that the government material is often based on its own interests and needs. The studies of NGOs often similarly have a narrow scope and they generally are quite uncoordinated (Bonheur 2006). Much of this is because collecting information safely in the field has not been possible in Cambodia for a few decades because of the Khmer Rouge troops. Because of this, the study is based on qualitative materials and methods, particularly interviews.

In addition to the semi-structured interviews conducted during summer 2006, other material used is the text database of Water Voice Project (Mak 2003) consisting of opinions, comments, and ideas on water issues from the grassroots people; the Participatory Research Approach (PRA-) studies of TKK (Keskinen et. al. 2002a; 2002b); and literature concerning Cambodia. Instead, official documents have been referred occasionally. From the material the actors, their interests, conflicts and roles are supposed to be found. The models of Bryson and Crosby (1992:363) and Silfverberg (2006) are used as framework for this.

2.1. Qualitative Methods

Simplest defined, qualitative material appears as text. Features of a qualitative study are the discretionary sampling, the role of the researcher and the narrative character of the results. In qualitative research, qualitative-inductive analysis of the material is used. In it, themes and their connections are important. The researcher is supposed to describe an event, understand a certain action or to be able to give a theoretically meaningful interpretation of a phenomenon. In practice, the analysis is supposed to create clarity into the material collected and thereby bring in new information about the subject of the study. (Eskola & Suoranta 2005:15, 61, 137.)

The advantage for the scientific level of the material is then not the quantity but the quality and the comprehensiveness of the conceptualization. The researcher is trying to situate the study into its social connections. During the qualitative research the researcher is supposed to learn something new or get surprised. It is essential for learning new that the presuppositions of the subject are realized and taken into account. In qualitative research the research plan as its best develops along with the research project. Objectivity of the study stems from the recognition of one's own subjectivity. (Eskola & Suoranta 2005:15-20.)

Naturally, the interpretation of the qualitative material is more subjective than with the quantitative material. However, this can elevate from material features which would not be discovered in quantitative material.

In this study the presuppositions – of both the interviewer and the interviewees – might have affected the researcher being a young Finnish (Western) female student. Evidently the interest in the rights of the poor and the environmental issues has directed the research. On one hand, being an individual student and having a relatively low status despite the role of foreigner might have helped to discuss also about the difficult issues. On the other hand, as an outsider it is possible that many things have remained unnoticed in interviews.

Compared to Öjendal (2000), Flyvberg (1998) and the researchers of TKK (Keskinen et. al. 2002a;2002b), this study was done rather far away from the particular research subject: only two weeks were spent in the country. Luckily, many people who have experience in the region were met. In addition, the Mekong region had been visited once before, for one month in 2003. Still, the distant location naturally limits the depth of the analysis.

2.1.1. Interview as a Method

Interview is interaction where both of the parties influence each other (Eskola & Suoranta 2005:85). Interaction facilitates flexibility and helps to raise causal relations and meanings. The new themes raised by the interviewees in discussions have partially directed the scope of the study.

Interview is dependent on context and situation. This creates the problem of interviewees possibly talking in different way than they would do in other kind of situation. This can be taken in account when the results are being interpreted: the results should not be generalized. (Hirsjärvi et al. 2004:196.)

Öjendal (2000) even talks about ‘rhetorical dances’ when the respondent e.g. wants to talk about everything except where he or she has primary information to contribute. Another example is where a Ministry is ‘selling’ it’s a preferred project or approach of their own institution. Also, within government structures it has been a survival technique for a long time to weight cautiously what is said (Öjendal 2000:40-41).

In Asian culture it is also important not to lose one’s face that is to raise humiliating issues into discussions. Even answering negatively is considered impolite. This is something which makes formulating questions challenging compared to Finnish bluntness.

To interpret interviews is challenging. Sulkunen (1990) sees four kinds of difficulties in it. First, the interpretation is often done long time after being on field. Second, the analysis of the texts is difficult on semiotic tools because of the length and loose structure of the material. Third, the material is vast, and fourth, the researcher and the interviewee have occasionally difficulties to understand each other. (Sulkunen 1990:275-276.)

It can be admitted that even in the interviews for this study, the above mentioned features of Sulkunen (1990:275-276) were noticed. The tapes were typed up approximately two months after the interviews had been done. There was also more and less official information to bring together and pages after pages of material, and neither the researcher nor the interviewees were native English speakers.

One more difficulty in interviews is the multilevel character of the interpretations. Hoikkala (1987) mentions that the interviewee does own interpretations during the discussion; the researcher does the second level interpretation while dealing with the material; and the third while editing the report. The fourth interpretation is finally done by the reader (Hoikkala 1987:175). Öjendal (2000:40-41) mentions that the interviewees themselves might already make references to general knowledge or reports and studies done somewhere else, this kind of information thus already being secondary data. This is natural part of discussion, noticed also in the interviews of this study.

Interviews in Practice

According to Cassell and Symon (2005:12), qualitative research interviews vary in methodological features such as length, style of questioning, and participant numbers (group or individual). The main division is to structured, semi-structured and

unstructured interviews. In semi-structured interviews, the themes only can be specified in advance or alternatively everyone can have the same questions but they can be answered freely. When the thematic method is used, the questions do not have any strict formula or order. (Eskola & Suoranta 2005:86.)

In this study the themes of interview were chosen beforehand (see APPENDIX 1). There was a list of questions, but they varied and were chosen according to the situation. Also the order of the questions varied. As a special feature, everyone was not asked about the same themes, but the topics were chosen or weighted according to the field of specialization of the interviewees. It was seen as the best method because it helped to raise relating themes, and it was also more flexible, as the interviewees came from different contexts and had knowledge of rather different fields. The interviews started by inquiries whether the interviewees' had experience on Cambodian situation, water management or the Finnish development cooperation.

The interviews of this study can be described as a combination of semi-structured and the unstructured interview. The main difference compared to the traditional form of unstructured interview, described by Eskola and Suoranta (2005:86), is that only one interview per person was done. The length of the interviews varied around one hour according to the schedules of the interviewees and the impression about the significance of the view to the research questions.

Most of the interviews were recorded. However, also some spoken information outside the actual interviews and therefore outside the recorded material has been used. In addition, there were situations when using the recorder seemed to affect the willingness to answer the questions. The recorded interviews were transcribed loosely, not word-for-word, instead searching for themes, events and opinions. This also kept the amount of material to interpret relatively short.

Choosing of the Interviewees

The interviewees were searched with the 'snowball method' which means asking the existing contact persons (first at the TKK Water Resource Laboratory) to recommend someone who would know more about a certain field. The amount of the interviewees was tried to keep rather small in order to have a chance to familiarize better with the material. Finally, the group of the interviewees consisted of both, Cambodian and Finnish experts and officials.

From Cambodia:

- Dr. Neou Bonheur is Deputy Director of the Department for Nature Conservation and Protection within Cambodia's Ministry of Environment. He is also a Deputy Permanent Secretary of Tonle Sap Biosphere Reserve (TSBR) Secretariat which is an inter-ministerial coordination body. As Project Coordinator of the Tonle Sap Environmental Management Project, Dr. Neou Bonheur supervises three project components: natural resources coordination and planning, community fishery organization, and capacity building for biodiversity conservation of the TSBR.
- Mr. Pech Sokhem is a Researcher at the Science and Technology Agency of the University of Yamanashi. He focuses on major rivers in Asia, including Mekong. In addition, he is a former Official in the Ministry of Foreign Affairs in Cambodia and in MRC.
- Mr. Vong Sok (National Programme Coordinator in the Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme which is a five-year (2004-2009) joint programme of The World Conservation Union and MRC. Its goal is the conservation and sustainable use of wetland biodiversity.
- Mr. In Samrithy is an NGO Liaison Coordinator in Cooperation Committee for Cambodia (CCC) which is an NGO membership organization promoting information exchange and NGO coordination in Cambodia. CCC's members include both Cambodian and International NGOs.
- Provincial officer from Battambang, whose identity is kept confidential on request.

From Finland:

- Dr. Juha Sarkkula is a Team Leader of the Mekong River Commission Lower Mekong Modelling project (Mekong River Commission Secretariat/WUP-FIN, 2nd phase, 2004-2006). Finnish Environment Institute (SYKE) forms a project consortium together with Environmental Impact Assessment Centre of Finland (EIA Ltd.) and Helsinki University of Technology (TKK/Water Resources Laboratory). The project is funded by the Development Cooperation Department, Ministry for Foreign Affairs of Finland. Before the project, Sarkkula has been working in SYKE.
- Ms. Tove Selin is a Civil society activist and Project Coordinator in Siemenpuu Foundation which offers support for civil society organisations in developing countries working for ecological democracy, environmental protection and prevention of environmental threats.
- Mr. Matti Nummelin (Senior Environmental Adviser) and Mr. Eero Kontula (Water Adviser) work in the Department for International Cooperation, Ministry for Foreign Affairs of Finland.

Two of the interviewees from Finland (Sarkkula and Selin) know both, about circumstances in Finland, and in Cambodia. Nummelin and Kontula concentrate on the Finnish development cooperation.

Certain biases can be found in the composition of the interviewees. First, there was only one current representative of the central government level. It is difficult to receive valid information because of their status (Cassell & Symon 2005:19) and to organize meetings with the government officials. Consequently, the views concerning central state are practically external opinions.

Second, rather lot of information was gathered about the development cooperation of Finland. This was earlier supposed to be the focus of the study, also because of the proximity of the material. However, the visit to Cambodia and the received information about the internal affairs of the country stressed to focus more on Cambodia itself. During the field visit the local level participation seemed to be more concretely related to power relations than the development cooperation or the formal democratization. Because of this, reflected afterwards, NGOs should have been visited more and more time should have been spent at the village level.

Third, the environmental as well as the civil society viewpoint are a bit over-focused. This was however conscious, as the official material of the institutions seems to in turn highlight the economical, technical and the more centralized perspective. In addition, as study of Murdoch and Abram (2002:16) shows, the discourse of sustainable development can accord with local aspirations. The actors of private sector in water management seemed difficult to reach.

2.1.2. Earlier Studies and Literature

Material of Water Voices (Mak 2003) and participatory studies of Keskinen et. al. (2002a;2002b) gave some idea about the everyday life at the countryside.

Water Voice Project material (Mak 2003) is a database of opinions, comments and ideas on water issues from the grassroots people. The document consists of 225 voices collected between March 2002 and February 2003 from the 22 provinces in Cambodia. The material is a result of the cooperation between the Mekong River Commission and the Secretariat of the 3rd World Water Forum. Dr Solieng Mak, Mr Kamoto Minoru, and Mr Chea Chan Thou (Ministry of Environment, Cambodia) collected the water voices in Cambodia as a Water Voice Messenger. The second

collection has been done between May 2003 and May 2004 but the material is not yet available. (Mak 2006.)

The Water Voices material (Mak 2003) is classified according to the provinces. In addition, the date of the voice collection as well as the age group, gender, occupation and the village of the voice senders are mentioned. Alternatively the opinions are of the groups of the villagers. Each of the voices are given a title and key words.

The collection of the Water Voices material (Mak 2003) is not evenly distributed along the country and the sampling has not been chosen beforehand. In addition, the material is translated from Khmer into English. It is difficult to estimate how much the voice collectors have affected to what people have said. Though, the material helps to discover connections between different activities and shows what kind of concerns the local people have related on water.

Socio-economical studies of WUP-FIN project were done in six villages (here has been used two of them, 2003a and 2003b). A weakness in using this secondary data collected by participatory methods is that there is no real picture about the circumstances – something which have great influence on the results of the participatory research. In addition, like in every secondary data, the sampling and other choices have been made on basis of different focus. This study uses the participatory study material of WUP-FIN project mainly to describe livelihoods and features of the Mekong River and Tonle Sap Lake.

Literature (Öjendal 2000), articles (e.g. Sokhem & Sunada 2006; Mareth et. al. 2001; Öjendal & Sedara 2006; Hughes 2006a and 2006b) as well as some working papers of the Cambodian research institution (CDRI: McKenney & Tola 2002) was used alongside with the interviews as a material in order to be able to answer the research questions.

2.1.3. Field Trip to Cambodia

The purpose of the field trip to Cambodia was to interview local experts and to observe the context and the water use in practice. Most of the interviewees had been contacted beforehand. About half of the time was spent in Phnom Penh (see FIGURE 1.1.), as the head offices of the major organizations are situated there. Another half of the time was spent travelling around Tonle Sap and visiting provincial capitals Pursat, Battambang and Siem Reap. From both, Pursat and Battambang, a short



FIGURE 2.1. The field trip gave idea about the local way of life in villages and by the water. Views from Prek Ta Kong village and from the shop by the Sangker River.

daytrip to nearby village was done (Prek Ta Kong and Ang Sang Sak). Journey between Battambang and Siem Reap (8h) was done by boat along the Sangker River.

Both of the villages visited were sites of the socio-economical analysis for WUP- (Keskinen et. al. 2002a;2002b). In these villages the material of Keskinen et. al. was tried to compare to the current situation by the help of simple transectual walk and asking questions from the villagers by the assistance of an English speaking NGO (Cambodian Family Development Service, CFDS) Worker in Pursat and the Provincial officer in Battambang. However, as the visits were not longer than two hours, it was just a way to familiarize with the local conditions in general rather than collecting of concrete material.

The schedule of the visit in Cambodia depended greatly on the office hours and the preset activities of the interviewees. The week days were convenient for the official interviews as in weekends there were chances to meet more freely mainly the Finnish contact persons. In general, the visit to Cambodia gave practical perspective to the study, although more time would have of course given deeper scope to for example local level. However, Cambodia had been visited earlier in 2003 for about one week with a group from the Department of Geography. Then also the northwest and southeast borders were visited and the Mekong River in Vietnam was travelled along.

2.2. Limitations and Research Questions

The main goal in this study is to formulate the interest groups of water management in production in different sectors and regional levels as well as to estimate and the mutual power relations of those groups. Power relations are examined from the perspective of resources and common or conflicting interests of the groups. The formal administrative system is only seen as context.

The underlying reason for all this is to find out what is the long-term ability to manage (plan and control), water resources in Cambodia. As mentioned, the hypothesis is that there is no coordinated long-term planning of water management par excellence but the actions follow each other according to the various interests of the actors. Wanted or not, this kind of politics would affect the sustainability of the development cooperation.

This study concentrates on the side of production in water management, as did Öjendal (2000:31). His concrete reasons for giving priority to production instead of sanitation and health were: i) Water management for rural production is more of a collective effort, and ii) The local, national, and regional debate has been more vivid (and therefore more accessible).

This study has following research questions:

- 1. What kind of change would be needed the most concerning the resources and decision-making at the national level?**
- 2. Are there hierarchies, conflicts or possibilities for cooperation within the interest groups of water management in Cambodia?**

In order to be able to answer the first question, is tried to find out, how Cambodian water resources are exploited, how the water management in Cambodia has changed after the year 1991 and how the use of the water resources is currently planned in Cambodia. The resources of the public administration form the basis for the question on power relations. After other actors at the national and local level have been identified and their resources and interests are introduced, the relative power and relations of central state versus other actors are assessed.

In terms of national levels, the focus is at the public sector, the central state level, more concretely on line-ministries and Cambodian National Mekong Committee (CNMC). This is the level which in this study is seen to have a coordinating role between other actors and levels. Other actors covered here are political parties, private sector, media and research at the national level, local authorities, communities and NGOs at the local level. International level covers Southeast Asia and Mekong Basin as well as international development cooperation. Groups or coalitions, instead of individuals are on the focus of this study. As water in production is mainly used in agriculture and fishing, the focus is mainly on rural areas.

Time scale of the study is emphasized between years 1991 and 2006. Explanation for the time period is the Peace Convention in 1991, governmental elections in 1993, the commencement of the Greater Mekong Subregion Programme (GMS) of Asian Development Bank (ADB) in 1992 and Mekong Agreement of the Mekong River Commission (MRC) in 1995 between the Lower Mekong countries. These events will be discussed more profoundly below.

3. REGIONAL CONTEXT

The location of Cambodia is characterized by two regional contexts, Southeast Asia and Mekong. Southeast Asia can explain more about the cultural traits, and nowadays even more the economical guidelines the countries of the region try to follow. Mekong River connects the countries within its basin primarily on ecological terms. However, as natural resources are important part of the economical development, the Mekong Region has actually become one of the core areas within Southeast Asia.

3.1. Southeast Asia



FIGURE 3.1. Map of Southeast Asia and Mekong Region (adapted from University of Texas at Austin 2002; UN 2006a). Mekong countries are highlighted with a darker colour.

Southeast Asia (see FIGURE 3.1.) is roughly bordered by China in the north and India in the west. In the east is Pacific Ocean and in the South Indian Ocean. The natural environment in Southeast Asia is characterized by the tropical or subtropical climate. Monsoon brings seasonal rains to the mainland.



FIGURE 3.2. Monsoon showers and flooding are common features of the Southeast Asian climate (Battambang).

Internationalism has been characteristic to Southeast Asian culture as long as history knows (Heikkilä-Horn & Miettinen 2000:452). It is difficult to define a particular Southeast Asian culture as the countries have received very different influences along with conquerors, colonialism and current ties of globalization. Still there are some features which are common to the roots of the culture in these countries. According to Heikkilä-Horn and Miettinen (2000:452), common features to the countries of Asia are the hierarchical relations in society, the strong role of traditions, social relations and family as well as ancestors and traditions as a base of life.

The main cultural influences have come from India, China, Arab countries and Europe (Heikkilä-Horn & Miettinen 2000:452). The history of religions describes the influence well. According to Heikkilä-Horn and Miettinen, Hinduism began to affect in the beginning of the Common Era. Buddhism came through various routes: partly with the Indians like Hinduism – partly along with some Chinese and monks. Islam came as a third foreign religion along with the Indian traders by the 13th century. Christianity came in the 16th century. (Heikkilä-Horn & Miettinen 2000:29-35.)

At the same time with the Christian missionary work, the trade started with Europeans who first had come to Southeast Asia as explorers. This gradually led to the establishment of European colonies in the region. In the mid-20th century, Southeast Asian countries gained their independence. After this the countries started to develop their political and economical life along with the nation building. This has not always

been easy and countries have met political experiments, civil wars and economical crises. (Heikkilä-Horn & Miettinen 2000:451.)

All of the countries of Southeast Asia have some Western political and economical structures. However, institutions are weak as these structures do not always fit together with the local governmental tradition of the countries emphasizing on harmony and hierarchy (Heikkilä-Horn & Miettinen 2000:448, 451). Even if Southeast Asia has shown some of the fastest levels of economical growth in last the decade, the well-being is far from equal distribution between and within the countries.

In Asian culture, according to Remes (1997), the relations of the actors are particularly important, and much of the process happens in personal contacts, even if the organizations formally are very hierarchical and sectoral. Actually, the formal position does not always directly reflect the importance of an actor (Remes 1997:139). Sokhem (2006) has noticed that in Cambodian politics, many important linkages between the actors do not appear in official documents.

3.2. Mekong River Basin

The catchment area of the Mekong River covers three percent of China, two percent of Myanmar, almost the whole of Cambodia and Laos, about one third of Thailand and one fifth of Vietnam (Öjendal 2000:15, see TABLE 7.4).

The Mekong Basin is a particular area because of its natural conditions as well as the political and the social importance. Mekong (see FIGURE 1.1. and 3.1) runs through six countries, very different between each other: China, Myanmar, Laos, Thailand, Vietnam and Cambodia. As a water basin, Mekong creates regional divisions flowing south from the Tibetan mountains to its delta in Vietnam. The location by the river gives the countries very different starting points from the political view: the actions of the countries upper along the course affect the amount and quality of the water at the lower course.



Water regulation still has its role in discussion about the water resources of the Mekong River Basin. The vast

FIGURE 3.3. Rice farming is the main beneficiaries of water resources in the Mekong Region (Sangker River, close to Battambang).

difference in water flow between the dry and wet seasons have always been one of the driving forces to regulate the river. The annual change in water level of course strongly affects agriculture, navigation, and hydropower potential. On the other hand, hydropower, irrigation for commercial agriculture and other large-scale activities also influence the hydraulic regime – hence changes in water flow and water quality are politically and environmentally sensitive issues. (Öjendal 2000:25.)

Though, the Mekong Basin has not yet been ruthlessly exploited and there is a reasonable change of managing the resource wisely before it gets disruptively exploited. At present there is only one mainstream hydropower plant, the Manwan dam, in the upper reaches in China. A weakly developed legal, institutional and environmental regulation, in combination with vested interests among the elite, makes the balancing act difficult though. (Öjendal 2000:21-23.)

Recently, frequent and severe transboundary problems and concerns have emerged in the Mekong Basin, casting serious doubt on the effectiveness of the existing regional governance structures and practices. These problems and concerns include: blasting and dredging of the river channel in the upper Mekong for improving navigation; a large-scale dam cascade in China and Vietnam, ambitious dam development plans in Laos; and Cambodia's concern about the flood control measures along the Vietnam-Cambodia border. (Sokhem & Sunada 2006:404.)

As territory in 145 nations falls within international basins, cover 45.3 percent of Earth's land surface, host about 40 percent of the world's population (Wolf et. al. 2005:82-83), Mekong is not alone with the need of political cooperation in water management.

3.2. 1. Actors of the Mekong Region

The Mekong Region has not been free of warfare. Over the history, Vietnam and Thailand have struggled of Cambodia, the land area between them, which has made Cambodia careful in cooperation with its neighbors (Chandler 1996:1). Cold War Era made also divisions between the countries. At the Upper Mekong, the whimsical acts in hydropower plant decisions of China (Öjendal 2000:142) and the military junta of Myanmar (Sillanpää 2004) are not factors encouraging to interaction. Still, certain level of cooperation is attempted.

Interestingly, according to Sokhem and Sunada (2006:401), many of the actors in the Mekong Region draw their financial and technical support from almost the same pools of donors, financiers and contributors.

Association of the Southeast Asian Nations

For Mekong countries, the main forum with other Southeast Asia is the Association of the Southeast Asian Nations (ASEAN). It was established by Indonesia, Malaysia, Philippines, Singapore and Thailand in 1967. Later Brunei Darussalam (1984), Vietnam (1995) and with hesitation Myanmar and Laos (1997) and Cambodia (1999) were occupied in ASEAN. The association is supposed to accelerate economic growth, social progress and cultural development as well as promote regional peace and stability in the region. The steps in ASEAN regional development cooperation programme typically include harmonization of policies and of institutional mechanism and capacity building. (ASEAN 2006a;2006b.)

Realising the great economic potential of the Mekong Basin and desiring to cooperate in the development of the Mekong Basin, countries of ASEAN have formed the Basic Framework of ASEAN-Mekong Basin Development Cooperation. The framework is supposed to strengthen the interconnections and economic linkages between the ASEAN member countries and the Mekong riparian countries as well as to enhance economically sound and sustainable development of the Mekong Basin. (ASEAN 1996.)

One of the main goals of ASEAN is to create coherent politics in relation to Japan, China and the global economic organizations (Heikkilä-Horn & Miettinen 2000:451). As a concrete aim, the ten countries of ASEAN are going to create a free trade area of 560 million inhabitants by the year 2015, European Union serving as an example of the economical integration (Sillanpää 2006).

The difficulties of the cooperation within ASEAN are the huge differences between the countries in size and development (Sillanpää 2004). There is also lack of social, economical and political similarity within the countries. Despite the disparities, the countries have become closer to each other in the 90's. On one hand this is result of the ending of the Cold War, on the other hand result of the tightening of the competition in world trade. (Heikkilä-Horn & Miettinen 2000:446.)

ASEAN is seen for Cambodia as a possibility of having an Asian example to follow, but on also as a threat of increased competition for weakly regulated Cambodian

markets (Bonheur 2006). Cambodia has also joined World Trade Organization (WTO) in 2004. WTO is the only global international organization dealing with the rules of trade between nations. Its goal is to help producers of goods and services, exporters, and importers conduct their business. (WTO 2006.)

Joining WTO improves market access, and also sends a strong signal to trade and investment partners about Cambodia's future direction (World Bank 2004:94). Hence, WTO directs Cambodia to the economical opening, as does the ASEAN.

Mekong River Commission

The story of Mekong cooperation begins in the middle of the 20th century with the formal signing of the Geneva Accords, when the newly independent nations of Cambodia, Laos and Vietnam took their places on the world stage. Officially the cooperation started in 1957 around Mekong affairs in form of Mekong Committee (MC), backed by UN. However, lack of stability in the region resulted in the interruption of Mekong Committee sessions in the late 1970s. In response to Cambodia's absence, in 1977 Lao PDR, Thailand and Vietnam adopted a new statute forming the basis of the Interim Mekong Committee. After the peace convention in 1991 Cambodia was eager to join the group again and the Mekong River Commission (MRC) was established in 1995. (MRC 2006a.)

The basis to MRC cooperation lies fundamentally in the 1995 Agreement (Sokhem & Sunada 2006:401). Its main idea to have the common interest in jointly managing the shared water resources and developing the economic potential of the river (MRC 2006a). Mekong Agreement Visions specify three development goals for the basin: economic growth, poverty reduction and environmental sustainability (Varis & Keskinen 2006:429). MRC is supporting a joint basin wide planning process called the Basin Development Plan, with the four countries (MRC 2006a). The national level is coordinated through National Mekong Committees which were created in 1959 (Öjendal 2000:118).

MRC is developing tools in support of planning and management. In the Mekong Basin, the MRC is one of the main stakeholders applying basin-wide Integrated Water Management (IWRM) (Kummu et. al. 2006:514). As Varis et. al. (2006) mention, IWRM is in accord with sustainable development concept, as stipulated at the Johannesburg Summit in 2002. It also highlights basin-wide context, with stakeholder participation and good governance (Varis et. al. 2006:395).

In general, MRC is working more on a 'software side', compared to ADB (Sokhem & Sunada 2006:403). 90 per cent of the costs of the MRC work are supported by the foreign donors (Sarkkula 2006). These are for example the Nordic as well as West European countries, Australia and New Zealand, Japan, Korea, USA, European Union, World Bank, UNDP (United Nations Development Programme) and ADB. In addition, MRC is cooperating with many other organizations. (MRC 2006b.)

MRC has been criticized of its weakness to really conduct regional resource development. Secondly, it is criticized of being too large and ambitious to deal with e.g. setting standards, doing survey work and collecting data (Öjendal 2000:164). Its development trends have been disapproved of profiting only the political level, thus not reaching the local people's everyday lives as well as of struggling between large scale interventions and the principles of sustainable development (Sarkkula 2006). According to Selin (2006), MRC realizes rather centred planning. In the case of Cambodia, this is also result of the CNMC not having been able to bring information and express needs of the national and local levels (for example Öjendal 2000:283; Sokhem & Sunada 2006).

Asian Development Bank

Asian Development Bank (ADB) is another main actor in the Mekong Region, a multilateral development financial institution owned by 66 members, 47 from Asia and 19 from other parts of the globe (ADB 2006c). It has launched the Greater Mekong Subregion -programme (GMS) in 1992 in order to enhance economic relations among all the six Mekong countries. The program has contributed to the development of infrastructure to enable the development and sharing of the resource base, and promote the freer flow of goods and people in the subregion. ADB acts in the role of financier and provides technical and advisory support as well as loans. (ADB 2006a; ADB 2006.)

Main features of ADB compared to MRC are the participation of China (Selin 2006), the ability to mobilize required funds and focused more on 'hardware' building infrastructure, promoting economic cooperation through GMS Programme. Instead, MRC works more on a 'software' side and concentrates on developing rules, policy and basin planning. (Sokhem & Sunada 2006:403-405.)

Development in infrastructure, navigation and tourism appear attractive for the countries (Sokhem & Sunada 2006:405; Sarkkula 2006). There is criticism towards the centred planning practices and the strong impact of GMS on Mekong basin

(Sokhem 2006). Selin (2006) doubts, if ADB even understands all the impacts of its actions and strong business interests.

Both of the goals of ADB, the development of infrastructure and the freer flow of goods and people in the subregion, are finally supposed to lead to economical growth. In this way it has great synergies with ASEAN and World Bank. These actors are more influential than MRC as they have more concrete economical actions and greater resources. ADB has mainly a competing role with MRC. Both of them want to be the actual coordinators of the water management of the Mekong Basin, speaking for sustainable development, but from their own starting points.

United Nations and World Bank

United Nations (UN) is one of the main collectors of the basic statistics of developing countries, aiming strongly at reaching the Millenium Development Goals (MDGs, solving international economic, social, cultural and humanitarian problems) and protecting and promoting human rights as well as at international peace and security. UN acts through its six bodies as well as specialized agencies and programmes. It provides for technical assistance and other forms of practical help (UN 2004).

In the past UN has impacted on the Mekong region first through supporting the creation of the Mekong Committee in 1957, then the Cambodian peace process and the establishment of the new coalition government in the early 1990s (Öjendal 2000:110,112). The latest action is to promote the arrangements of the Khmer Rouge trial (Pietarila 2006).

World Bank concentrates on global poverty reduction. It also helps development countries to improve government capacities, to implement legal and judicial systems which encourage business, protect individual and property rights and honor contracts, to develop financial systems and to combat corruption. It provides financial and technical assistance to developing countries in form of for example low-interest loans, interest-free credit and grants. (UN 2006b.)

As Kaisti says, according to World Bank it is not a political actor but in reality has considerable political and economical power. This is consequence of its great economical capacity, significant personal resources and world-wide operational field. Still, the voice of the small stakeholders is weak, according to the principle of 'one dollar, one voice'. Significant part of the development aid consists of information collection and sharing. The natural resource management of World Bank has been

criticized for unsustainable forest policies in Indonesia and for strict conditions of assistance. (Kaisti 2006.)

In the Mekong Region, according to Sokhem (2006), World Bank has very big projects related to the activities of the ADB and MRC. Since 1992 the World Bank has provided Cambodia with technical expertise and more than US\$ 659.2 million in loans and grants, and about \$ 99.7 million in trust funds to support efforts to reduce poverty and promote economic growth (UN 2006b).

Role of the International Development Cooperation

Nowadays international agencies have great impact on the guidelines of the Southeast Asian future through trade and development cooperation. Mareth et. al. (2001) criticizes the results of the international development cooperation: it mostly consists of a bunch of project reports and as much of the project funds are spent on international consultants, the national capacity building, ownership and local benefit remain weak after the project completion. Mareth et. al. (2001) is afraid that if the projects and funds are not internationally better coordinated, more problems in terms of institutional conflicts, duplicating activities and wasted resources may evolve in Cambodia.

Hughes (2006a), too, remarks that the support has not converted effectively into influence over the actual functioning of the state. The donor efforts to sponsor turnaround started in 1993 by structural adjustment for macroeconomic stability, together with provision of humanitarian assistance and aid for rehabilitation. The second phase, from 1998 on, has focused on reform of governance. (Hughes 2006a:74-75.)

Hughes (2006a) criticizes donor engagement on two main grounds: lack of coordination among donors and distrust of the existing administrative structures. In addition, relatively little attention was paid to ensuring the penetration of aid beyond the city. In the area of the donor-government relations, much progress has been made since 1999 in terms of developing more constructive relationships, establishing frameworks for consultation, and promoting national ownership of reform programmes. However, in the interconnected areas of civil-military and state-society relations, there are fewer grounds for optimism. (Hughes 2006a:75.)

In general, stronger responsibility of the international funding institutions and agencies is claimed (Sokhem & Sunada 2006:406; Selin 2006). There again, as

Nummelin (2006) mentions, the budget support— to which Finland has also shifted — decreases possibilities of the donor country to affect the development as the recipient government or organization can prioritize its own goals. This can be seen for example in the weakened impact of the Finnish support on environmental affairs, one of the main focus areas of the Finnish development cooperation (Nummelin 2006). The differences in goals are often concerning the emphasis between economical and environmental interest and the scale of the actions.

Another mis-match on the scene according to Öjendal (2000:203) is that as the primary objectives of supporting rural development from the side of the Cambodian government are achieving food security, increasing the rural productive base, and promoting political stability—admittedly, promoting national economic growth is an overall priority. However, according to Öjendal, contributing to national economic growth seems to be the single most important criterion of the international donor community. All this does not mean that there would not be common interests of the donor and recipient agencies. The problem is instead the lack of the coordination between the actions.

In addition to ADB and World Bank, the support of industrialized countries themselves has a huge share in the budgets of Cambodia, MRC and NGOs (UNDP 2006:345; Sarkkula 2006; Samrithy 2006). The donor countries often channel their support through the budgets of the international development institutions, but there is also bilateral support to the countries. The most visible countries taking part into the development of Cambodia mentioned in the interviews were Australia and Japan as well as the countries of the Northern and Western Europe.

Outside the public funds, the private investors affect the development in the area: the net foreign direct investment inflows were 2.7 per cent of GDP in 2004 (UNDP 2006:345). Taiwan and Malaysia particularly are the largest foreign investors in Cambodia, and they heavily support the Cambodian garment industry (Hughes 2006a:67). Tourism and infrastructure are also interests of the foreign investors. However, the international companies have not really entered the country as it is still seen as an unstable business environment (Bonheur 2006). Still, another common and rather unofficial form of ‘development assistance’ is the received human and financial resources by the people of the poor countries studying and working abroad.

The number of international non-governmental organizations (INGOs) in Cambodia has reached about 300, up from 25 in the early 1980s (ADBb 2006). They focus mainly on development, health, education, human resource development, natural

resource management and human rights, as do the Cambodian NGOs (Samrithy 2006). However, according to Samrithy, the INGOs also act as channels for funding. They also support local people's rights in international development projects (Selin 2006b).

Japanese Mekong Watch, American Oxfam international and the joint program of twenty organizations, The Mekong Program on Water, Environment and Resilience (M-POWER) have been the most visible forms of research and NGO work according to the interviews. They are all concerned about themes like justice, democratization and consultation in development planning and implementation, livelihoods and infrastructure.

3.2.2. The Interests of the Riparian Countries

In order to understand the power relations of the Mekong countries, it is useful to get acquainted with their interests. According to Öjendal (2000), compared to the situation in the 60's, which were marked by the collective interests of the non-communist countries in the Basin, the situation has now returned to a more 'normal' one for international watersheds. That is, the different states protect their right to, and particular use of, water. (Öjendal 2000:143)

However, geographical facts remain: as Öjendal (2000:84) mentions, the upstream country can only 'lose' by engaging in negotiations, the midstream country can then argue for general rules applying to everybody in the basin and thereby enjoy the relative safety such a regime provides, but also lose the profit maximization seemingly within reach. Downstream countries are naturally interested in the cooperation.

China and Myanmar

In 2002 Myanmar and China became dialogue partners of the MRC (MRC 2006a). The Mekong River is touching only a minor part of an inaccessible part of the Myanmar. Regional cooperation around the development in the Mekong River Basin can, however, be used as a vehicle to break its international isolation and especially to seek closer ties on the regional level. (Öjendal 2000:141.)

China is seen as a very powerful country, even though (or because) it is not active in MRC (Selin 2006; Öjendal 2000:142). As an extreme upstream country, China has few incentives to seek regional cooperation in the discussion on the use of the water. However, in a package together with increased market access in Mainland Southeast Asia, transportation possibilities southwards through Thailand (Laos, Cambodia or/

and Vietnam) and soft credits from the ADB, involvement becomes attractive. Yunnan province (see FIGURE 3.1.) in China is already involved in the GMS. China's situation is the mirror image of Burma's; on the one hand it has no special need to reassert itself politically in the region through Mekong cooperation, on the other, the river cuts through a large part of the country. Some stretches descend sharply and the potential for the development of hydropower is high. (Öjendal 2000:141-142.)

China is also a political giant, a large number of people live in the Basin and it has great plans for future. China is not a rich country, but it can nevertheless mobilize both enough engineers and capital to carry out basically any invention it would like to. A concern has, moreover, been launched over industrial pollution emanating from China. There is no doubt that China has a need for the Basin's resources. If China is going ahead with its plans, and there are few reasons to believe otherwise, coordination is a keyword. (Öjendal 2000:142-143.)

Sarkkula (2006) describes the Chinese activities at the Mekong as 'buying souls and natural resources'. He sees that China has a significant role as investor for hydro-power and other activities also in Cambodia. The Chinese living abroad have traditionally been influential in business activities of Southeast Asia (Remes 1997:98).

Thailand

As Sarkkula (2006) mentions, in MRC, Thailand aside of Vietnam is clearly the most advanced in socio-economical terms. This gives both of the countries also different status in the international debate (Sarkkula 2006). Following circumstances give Thailand quite a leverage over, but also responsibility for, the development in the Lower Basin: the level of GDP, a possessed cadre of engineers and managers as well as capability of self-financing, far exceeding the other three countries in the Lower Basin. The level of industrialization is also far higher. Finally, Thailand has superior contacts to outside world. (Öjendal 2000:129.)

Overall industrialization has occupied basic priority in Thailand's development strategy. Agriculture has enjoyed long time economic growth and provided basis for the coming industrialization. Thailand aims at leaving the 'low-end-products' and shift to the 'high-end-products' and at the same time returning to environmentally sound production. Tourism is another success story in Thailand. Curiously, Thailand does not mention fishing in the official paper in spite of its large importance for the local production and consumption, which might be taken as indication of the relative

neglect of the traditional sectors. The dilemma is, how the rural areas will be drawn into the industrialization development. (Öjendal 2000:129-130.)

The most important part of the Mekong Basin of Thailand has been neglected and remains far poorer than other parts of the country. The region faces high population growth, ecological degradation, temporary drought and permanently unreliable rainfall. Industrialization and effectivization of agriculture have some serious implications: need for cheap energy supply, and a great need for fresh water. Transbasin diversions or large-scale dams are the commonly recommended remedies for water restraint problems in Thailand. (Öjendal 2000:129,130.)

Thailand in general seems to, i) favour the building of middle and large-scale dams (possibly in Laos) and capturing water for domestic use and large-scale irrigation. The conclusion is that there is a shortsighted, but tempting argument for Thailand to disregard the Mekong cooperation with downstream countries (Öjendal 2000:131).

Vietnam

As said, Vietnam has relatively stable socio-economical conditions. It has faced a huge economical growth during the recent decade, seven per cent a year in 2005 (Massa & Einola-Head 2006:55). In the footsteps of Doi Moi [‘renovation’, economic reforms since mid-1980s] – with its focus on foreign investments, rapid industrialization, and acceptance of individual consumerism – the need for electricity generation is also sharply rising (Öjendal 2000:140).

For Vietnam, as for Thailand, the Mekong Basin occupies minor, but important parts of the country. Vietnam has roughly speaking two significant parts of the country covered by the Mekong Basin: the delta of Mekong and the highlands in the west. Vietnam’s location as the furthest downstream country makes it, however, vulnerable to changes in the Basin’s water regime: it is sensitive to too little, too much or too polluted water. Already, the delta regularly faces salt water intrusions. Since agricultural production in the delta is crucial for the Vietnamese development strategy, the Vietnamese interest in the Mekong River is tightly knit to securing and improving agricultural and fishing productivity in the delta. (Öjendal 2000:139-141.)

Combined the economical growth and the needs for agriculture, it seems that Vietnam has two rather conflicting needs: to limit upstream exploitation and at the same time develop hydropower production. The third priority of Vietnam is flood control which fits to both of the needs. One can assume that with increasing population pressure

and increasing modernization, the pollution of the river will increase. (Öjendal 2000:141.)

Laos

Laos is a small mountainous, ethnically divided and sparsely populated country with a low degree of industrialization. The majority of the population generates their living from subsistence farming and a third of the population lives outside the money economy. Laos combines, on one hand, the position as a key country in the Mekong River affairs, abundant with natural resources, but on the other, has very little 'weight' to back up this crucial role. Laos will, for the foreseeable future, partly depend on external resources; whether it comes from the powerful neighbours or from the donor community. For Laos, it is important to keep good and balanced relations with the two large neighbours. (Öjendal 2000:132-133.)

Laos has the greatest hydro-power potential of all four countries. The projects related to the Mekong River are benignly viewed from the many of the potential donors (especially Thailand and Vietnam), so Laos will have good chances of attracting a considerable share of the project financing on soft terms if they can find a formula for achieving this in an environmentally acceptable way. (Öjendal 2000:133.)

Forest products are the other major export earner for Laos. Currently, logging seems to be carried out at a far too hasty and indiscriminate pace to be sustainable. Also tourism is seen as a prioritized sector for the future and heavily dependent on conservation of the environment. Laos requirements on a new regional river agreement would thus principally be a certain protection from power politics, a possibility of a reasonable expansion of hydropower and a maintained, or improved, river transport capacity. The general up-keeping of biodiversity and balance in the ecological systems are also of crucial importance in the long run for achieving these goals. (Öjendal 2000:134-135.)

Cambodia

Cambodia is squeezed between two strong states, Thailand and Vietnam. In history, these countries have consistently tried to patronize or absorb their neighbour (Chandler 1996:243). As Cambodia is situated at the lower course of the Mekong River, it is also strongly dependent on the actions of the countries at the upper course –and a losing role on changes of the river basin especially because of its extremely sensitive ecological regime.

Cambodia has a low status in Mekong affairs, because of its small size in terms of economy and low purchase power of the population as well as historical and political reasons (Selin 2006). In the international politics of Cambodia the role of the donors seems to get more and more significant. Sarkkula (2006) highlights the difficult history and weak capacity of the both, Cambodia and Laos.

Cambodia is the ‘newcomer’ in the Mekong cooperation and it has little chance to influence upstream countries and experiences difficulties when making rational long-term plans. Increase of agricultural production and the attainment of food security are two of the major strategies of the country. There is a broad consensus among the Cambodian experts on the Mekong River that water development must, in at least short and medium term, focus on rural development. (Öjendal 2000:135-139.)

In the long run, Cambodia is interested in developing its hydropower capacity, perhaps even on the Mainstream. Up to 33 per cent of the hydropower potential in the Lower Mekong Basin is said to be found in Cambodia. This potential in combination with present poverty and hope for the future modernization builds a high pressure on the development of the hydropower sector. (Öjendal 2000:136.)

An agreement on the development of the Mekong water resources must contain a limited change in flows, possibilities to receive assistance for developing rural areas and a future flood control measure. There is all reasons to believe that the Mekong issue is a top priority for Cambodia. (Öjendal 2000:139.)

As seen, the geographical position determines the interests of the countries a lot. To see the situation more en bloc (see TABLE 7.4.), where is collected the above introduced implications of the relations.

3.3. History of Cambodia

The history of Cambodia has been marked by the geographical location between Thailand and Vietnam, at the crossroad of the Chinese and Indian influences. The first signs of inhabitants at the region of Cambodia date back to the B.D. 4200. It is also known that in the beginning of the Christian era a phenomenon called Indianization swept Cambodia and elements of Indian culture were absorbed or chosen by the Cambodian people in a process which lasted more than a thousand years. During this time there were coastal trading states like “Funan” created and faded or changed into polities further inland, known in the Cambodian case by the collective term “Chenla”. (Chandler 1996: 9-26.)

In Cambodia the years from the A.D 802 until 1431 were time of Angkor which was a flourishing kingdom of the Khmers. It is said to have got its power from the advanced irrigation system. The two main features of the post-Angkorean era were a shift of the capital from the rice-growing hinterlands of northwest Cambodia to the trade-oriented riverbanks of in the vicinity of Phnom Penh on the one hand and the increasing importance of the Thai and the Vietnamese foreign power in Cambodian internal affairs on the other. (Chandler 1996:29-97.)



FIGURE 3.4. Tuol Sleng Genocide Museum reminds of the horrors during the years 1975-1978 in place where there used to be the largest Khmer Rouge prison (Phnom Penh).

The French established a protectorate over Cambodia in 1863. During this period, which lasted until the 1950's, export linked Cambodia with a world outside Southeast Asia, new roads and rails were built and the population grew fourfold. The nominal control of the French lasted until the 1945. In 1953, Cambodia finally gained independence and was ruled by Prince Sihanouk until 1970. In 1970, Cambodia's National Assembly removed the prince from power in the context of a Vietnamese Communist invasion, U.S. involvement in the Vietnam War and a burgeoning civil war inside Cambodia. (Chandler 1996:4-5.)

The Communists were victorious in 1975, and during the next three year, many of the Cambodian institutions were destroyed or overturned, and the urban population forcibly exiled from the towns and cities, was put to work alongside everybody else as agricultural labourers. The new Khmer Rouge regime abolished money, markets, formal schooling, Buddhist practices and private property. During the Khmer Rouge regime over one million Cambodians, or one in seven, died of overwork, malnutrition, and misdiagnosed diseases or were executed. (Chandler 1996:5.)

In 1979 'People's Republic of Kampuchea', later renamed as State of Cambodia (SOC), struggled to its feet under Vietnamese protection (Chandler 1996:5). According to Chandler (1996), for several years, the regime submitted to Vietnamese guidance and control, particularly in the realms of defence, internal security and foreign relation. Vietnamese forces began withdrawing from Cambodia in 1986; the last Vietnamese troops left in 1989 (Hughes 2006a:70).

Peace convention with the help of UN in 1991 was the turning point for Cambodia. The years 1992-1993 were characterized by the presence of troops of the United Nations Transitional Authority in Cambodia (UNTAC) which were supposed to supervise the situation and organize governmental elections which were held in 1993. Still, the Khmer Rouge controlled perhaps a fifth of Cambodia's territory in the north and northwest part of the country still during the 1990s (Chandler 1996:241).

The Constitution 1993 restored the monarchy and placed Sihanouk on the throne, but gave him very little power (Chandler 1996:241.) Since the Constitution, Cambodia is known as Kingdom of Cambodia. According to Hughes, the history of the 1990s can be summed up as the attempt by various Cambodian parties to gain maximum advantage from a new international framework characterized by peacekeeping, international aid, and foreign trade and investment (Hughes 2006a:69).

Since the Constitution, government has had actions to decentralize the governance and to develop the legislation (Öjendal & Sedara 2006:510). First ever communal election in Cambodia was held in 2002 (Sithirith s.a:2) and the fourth national election in 2008. There is also intention to hold a UN supported trial to punish the main actors of Khmer Rouge, something which can help trust building in this broken society (Pietarila 2006) – although the opinions of this vary, especially within the Cambodians. Thus, according to Pietarila, the organizing of trial has been slow.

Following chapters introduce the theoretical frameworks of the natural resources, management and power as well as the experience on the Cambodian practice related to these issues. The regional and historical context of Cambodia determines much of the water management of today, as seen in the chapters below.

4.

WATER RESOURCES AND WELL-BEING

First, this chapter reviews the impact of natural resource base to livelihoods and subsistence and therefore to well-being. Well-being results in society from economical resources, often through opportunity to education. This strengthens the human resources and awareness in the society which are important elements for democracy and participation. This circle, described in FIGURE 1.2. begins from the rights and access to natural resources. This in turn, is dependent on power relations.

4.1. Features of Water

Water can be viewed from various dimensions. It is challenging even as a ecological substance, but if seen as natural resource, it becomes also economically and politically significant factor which spreads well-being around it. However, the functioning of the rights and responsibilities within the society determine the actual benefits.

4.1.1. Water as a Substance

97 per cent of the world's waters exist in oceans and only three per cent of the total amount is fresh water, of which less than one per cent is accessible for direct human uses (see FIGURE 4.1.). Only high quality fresh water, in high quality water, in the right quantity at the right place at the right time, is truly useful (Goswami 2003:245).

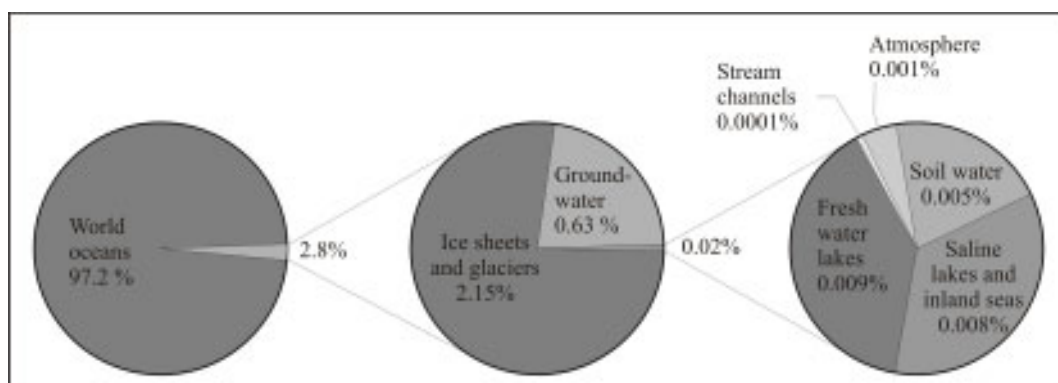


FIGURE 4.1. Volumes of global water in each reservoir of the hydrosphere (adapted from Strahler & Strahler 2002:135). Fresh water makes up only a small fraction of the total volume of global water.

Öjendal (2000:24) brings out the feature of the fresh water as a life necessity which we need for all thinkable human activities. Kontula (2006) criticizes that this meaning is often forgotten and water in development is only discussed within two dimensions, drinking water of hydropower. Öjendal reminds that water is a scarce commodity which can be seen in absolute and relational terms and measured by national and local access, the relational scarcity and local access being the most problematic (Öjendal 2000:295.)

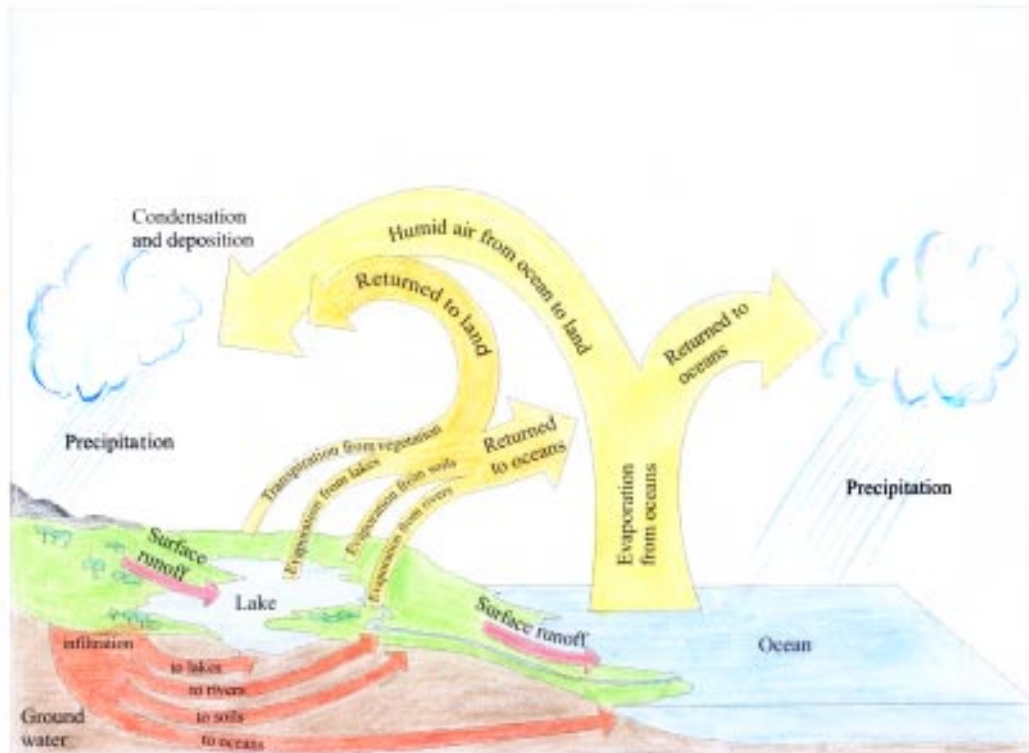


FIGURE 4.2. The hydrological cycle. The hydrological cycle shows the relation of water, land and vegetation (adapted from Strahler & Strahler 2002:438).

In geography, fresh water is often approached through the system maintained by the energy of sun, the hydrological cycle (see FIGURE 4.2.). Strahler and Strahler (1997:715) define it as a ‘total plan of movement, exchange, and storage of the Earth’s free water in gaseous state, liquid state and solid state’. Mäkinen (2005:29) describes it as ‘a natural system that includes evaporation, precipitation, water circulation and the water reserves: oceans, lakes, rivers, groundwater and ice.’ In practice, the hydrological cycle the complexity of controlling water, and the various processes where water is essential.

This study includes to water management the parts of the hydrological cycle from when precipitation first touches the ground until the water evaporates into air or runs to oceans. Naturally, this study concentrates on fresh surface water and the liquid state.

The hydrological cycle shows the moving nature of water. In addition, the hydrological cycle illustrates the role of the land and water in water flow and micro-climate as a result of erosion. Vegetation has an ability to detain water and soil and it also affects rainfall - and thereby to humidity and temperature - through evaporation. In Southeast Asia, exposed soil surfaces are vulnerable to devastating soil erosion as most of the bases of soil are found in a shallow surface (Strahler & Strahler 2002:595).

The cycle highlights the role of the whole catchment, where the hydrological cycle according to Mäkinen (2005:29) takes place on the ground (Mäkinen 2005:29). Catchment is 'the area from which rain flows into a particular river or lake' (Wehmeier 2005:232). It is a functional entity, political and cultural regional unit and planning area (Mäkinen 2005:29-32). Also terms basin and watershed are used to describe the source area of the water.

4.1.2. Water as a Natural Resource

'Natural resources' can be defined as 'materials or substances occurring in nature which can be exploited for economic gain' (Pearsall 2002:950). They can be divided to material and immaterial resources (the diversity, purity and values of the nature).

In case of material natural resources, according to Haggett, the primary distinction made is between non-renewable resources, which consist of finite masses of material such as coal deposits, and renewable resources. Non-renewable resources form so slowly that, from a human viewpoint, the limits of supply can be regarded as fixed. Renewable resources can be separated further into those whose levels of flow are generally unaffected by human action and those demonstrably affected. (Haggett 2001: 306-307.)

Water, air and sun energy are the most important of the renewable natural resources because they are needed to create and sustain creatures and plants on Earth. For



human use the renewable natural resources provide for agricultural crops, forests, fishing areas, irrigation water. It is still good to remember, that the renewing of these resources has its own cycle, and there is seasonal and regional variation on the

FIGURE 4.3. Rainfall brings water close to the users (Ang Sang Sak).

availability of the resources. As Sun et. al. (1989:4) writes, the land and water resources are the key components of the natural resource system of any country.

The human gains from the natural resources through biodiversity maintenance, carbon storage and water cycling are called environmental services. These services are difficultly calculable in terms of money but they provide basis for many livelihoods, habitat for species and also a scientific reserve for possible future needs. It is consequential to realize the importance of the ecological services for the socio-economics in Cambodia, even if this does not come out in the official national economy.

The absence of water and the economical services in the national economy is mainly due to the difficulty to measure water and to surely assess the interconnectedness to distant land and forest resources. The difficulty to measure water comes clear as compared to land and air, like Öjendal (2000:24) did. He writes that water is somewhere between these extremes: possible but awkward to regulate.

4.1.3. Socio-economic Conditions and Well-being

Water security in agriculture pervades all aspects of human development. Land and water are two key assets on which poor people depend on their livelihoods (see FIGURE 1.2.), usually far more than do people who are better off. Water cannot be considered in isolation from wider capabilities such as health and education, or from access to other productive assets, including land, capital and infrastructure (UNDP 2006:174).

Without access to infrastructure providing safe drinking water, electricity, fuel, and transportation, poor people rely on natural sources of clean air and water, fertile soil, renewable energy, and biodiversity to meet their needs (Melnick et. al. 2005:11). In practice, access to water depends on the proximity of the water basin or the ability to acquire water pumps (Keskinen et. al. 2002b:30).

Well-being has two sides, the material and the immaterial. Standard of living can be measured through economical factors. According to UNDP (2006), the human development index (HDI) focuses on three measurable dimensions of human development: living a long and healthy life, being educated and having a decent standard of living. Thus it combines measures of life expectancy, school enrolment, literacy and income and this way looks beyond GDP to a broader definition of wellbeing (UNDP 2006:263).

In addition to standard of living, according to UNDP (2006), quality of life consists of immaterial services or factors. This is why not even the HDI is a comprehensive measure of human development. It does not, for example, include important indicators such as respect for human rights, democracy and inequality (UNDP 2006:263). Power relations, freedom and safety are also factors difficult to measure.

Water in production has natural relation to economics. Economies can be divided to macro- and microeconomics according to their scale. As macroeconomics is usually seen in the GDP, microeconomics relate more closely to livelihoods and the 'living economies' concept of Shiva (2006) which she describes simply as 'nature and people kept alive'.

The share of the world's water use can be seen from statistics: for agriculture it is 69 per cent, for industry 23 per cent and eight per cent for domestic use (UNESCO 2006).

4.1.4. Competition, Rights and Responsibilities

A critical issue relating to rates of resource use is their ownership (Haggett 2001:327). Even if water resources were generally public areas, water basin can be possessed along with land areas. Alternatively the user rights can be sold for a certain period of time. A significant feature is also the proximity of the water body: the rights alone do not guarantee the possibility to access the resources. Also the land use of the surrounding areas affects the quality and quantity of the water resources, thus the access.

Broadly defined, water rights represent socially accepted and enforceable claims to water. They define the terms allowing for the removal of water from its natural environment, the use of water in a natural source and the management of water flows. There are three broad categories of rights common to most societies: public water rights held by the state, common or customary rights legitimized by norms and traditions and private property rights to use or transfer water (through, say, groundwater extraction or irrigation). These overlapping rights have an important bearing on how the claims and entitlements of rival users play out when competition increases. (UNDP 2006:178-179.)

There is criticism of free use of water leading to overexploitation and to overrun the carrying capacity of the environment (e.g. Hardin in the sixties). This is because an individual user may not understand the consequences of one's actions for the

circumstances for the community as a whole. In countries of high population growth, uncontrolled access can lead to environmental degradation easily, as do the commercial interests.

Kontula (2006) reminds that unfortunately in areas of water deficit, water often also has a weak productivity. Where water has clear ownership- and user rights, saving and trading water might be efficient strategy for protecting the ecosystem and raising the productivity of the water (Postel & Vickerst 2004:95). However, Shiva (2006) and Öjendal (2000:24) see it difficult to price water in developing countries as they see it as an essential human right.

From the concern of the ability to decide on one's close living environment have arisen philosophies like ecological democracy and earth democracy (Selin 2006a; Shiva 2006). Shiva defends common rights because they give an individual an ability to manage, or use, natural resources themselves to a certain limit. Instead, ownership rights she does not see as important (Shiva 2006). User rights have a special significance in developing countries where the government is not giving social security for the inhabitants. Still, the responsibilities must grow along with freedom and rights, which actually is the main problem in the idea of the common rights.

The legal system is normally one of the most direct methods for regulating societies, and perhaps the most visible expression of what 'the state wants' (Öjendal 2000:203). Though, as Tola mentions, law formulation is complicated: Law should only have a single clear interpretation, it should be extensive enough, and give equal rights within society. As drafted, it should be accepted by various decision makers. Then, the law to function, the officials as well as common people should learn to know its content and to understand how to apply it to everyday life. This can take several years, not to mention the need to make changes into the law after it is passed and brought to everyday life. Finally, law implementation should be controlled to make the law creditable. (Tola 2006.)

The English language reflects the potential of shared water competition: the word *rival* comes from the Latin *rivalis*, meaning one using the same river as another (UNDP 2006:215). Shared water is competed between countries, often in order to reach economical growth. Within countries water is often required for needs of microeconomics. At the local level the population growth is seen the most concretely as the resources might get scarce. As moving water makes even distant regions interconnected and different water uses often are harmful for each other, the conflicts arise easily (see TABLE 7.2.). More concrete examples about these features are seen below.

4.2. Water Resources and Well-being in Cambodia

Unique water regime has for long supported livelihoods and subsistence of Cambodia. In recent decades, social challenges and unwary treatment of the natural resources have risked the natural source of well-being. Now, the state has an important role on creating rules and supporting stronger control related to water resources.

4.2.1. State of the Natural Resources

The monsoon brings seasonal rains to Cambodia generally between May and November, the rest of the year is dry. In wet season much of the Cambodia is under water (See FIGURE 1.1.). Over the years, rice farmers and administrators have calibrated their activities to the ebb and flow of these conditions. (Chandler 1996:7). The Mekong River is the lifeline of the country (Varis et. al. 2006: 395) and Tonle Sap Lake can be regarded as the ‘Heart of the Mekong’: without it the Mekong River and its aquatic life would not flourish as it does today (Keskinen 2006:466).



FIGURE 4.4. Cambodian population is concentrated close to the water basins (Sangker River).

Tonle Sap is the largest permanent fresh water lake in Southeast Asia and is said to be one of the most productive inland waters of the world (Varis et. al. 2006:395). It has been listed as an international biosphere reserve (TSBR) by UNESCO. In the wet season, flooding in the Mekong River causes the Tonle Sap River to change its direction and flow northwest (upstream) in to the Tonle Sap Lake (Kummu et. al. 2006:502,510).

The lake has an extra-ordinary water regime with a huge seasonal variation in water level and volume. During the wet season, the water depth in the lake rises from a mere one meter up to ten meters and the surface area of the lake more than quadruples, extending the lake over vast floodplains consisting mainly of flooded forests, shrubs and rice fields. This brings valuable nutrients to the fields and gives favourable conditions for fish migration. (Keskinen 2006:463-464.)

For the Mekong system, the lake functions as a natural floodwater reservoir during the wet season. Equally, the slow release of floodwaters from the lake is a very important source of water for the Mekong delta during the dry season (Kummu et. al. 2006:502.)

This study concentrates on the Mekong River and the Tonle Sap Great Lake as the water resources of Cambodia. Despite the particularly sensitive features of these two water bodies, the principles of water management in Cambodia can be generalized, nevertheless by taking account the local context.

Cambodia is abundant with water in general. As Cambodia only has one rainy season a year, the problem is more about the regional and seasonal distribution. In addition, according to Mak (2003:3) and Öjendal (2000:138), the floods and droughts have increased and worsened. Destroyed crops force people to move and find other livelihoods (Mak 2003:5).



FIGURE 4.5. Many people have moved into the cities in order to find alternative livelihoods, but the working conditions can be difficult (Battambang).

Öjendal (2000) mentions the destructive heavy rains in 1991, 1994, 1996, 1997 and 1999 in Cambodia. According to him, the problem is likely to be enhanced in the years to come if the present rate of deforestation. As regular phenomenon, however, the flooding is crucial for the up-keeping of the phenomenon of the Tonle Sap River floating 'upwards', feeding the Tonle Sap lake in the rainy season. (Öjendal 2000:138).

Water quality is affected by the pollution from the floating villages, industry and pesticides. In addition the built structures change the flooding and flow regimes, decrease the sediment and nutrient transport and block the fish migration routes (Kummu et. al. 2006:511).

The over-use and illegal use of natural resources are probably the biggest local threats to the ecosystem (Kummu et. al. 2006). In addition, according to Öjendal (2000:138), lack of regulation, piecemeal law-making and mismanagement of natural resources has resulted in major environmental degradations. The deterioration of the natural resources and the rapid population growth is an unsustainable combination that in turn has led to worsening living conditions throughout the region (Varis et. al. 2006:397).

4.2.2. Socio-economic Conditions and Well-being

Current Demographic and Economical Structure

Cambodia is socio-economically one of the weakest states of the Mekong (Massa & Einola-Head 2006:11). Because of the Khmer Rouge regime in the 70's and after this the non-recognition and embargo of the government by Western donors until the peace convention, the situation the moderately stable conditions in Cambodia have not evolved before the 90s. For the same reason, Cambodia has entered the cooperation of the Mekong River relatively late, in 1995. Currently, Cambodia is in transitional phase towards a market-oriented economy. The change was initiated in 1985 and intensified in 1989. (Öjendal 2000:135.)

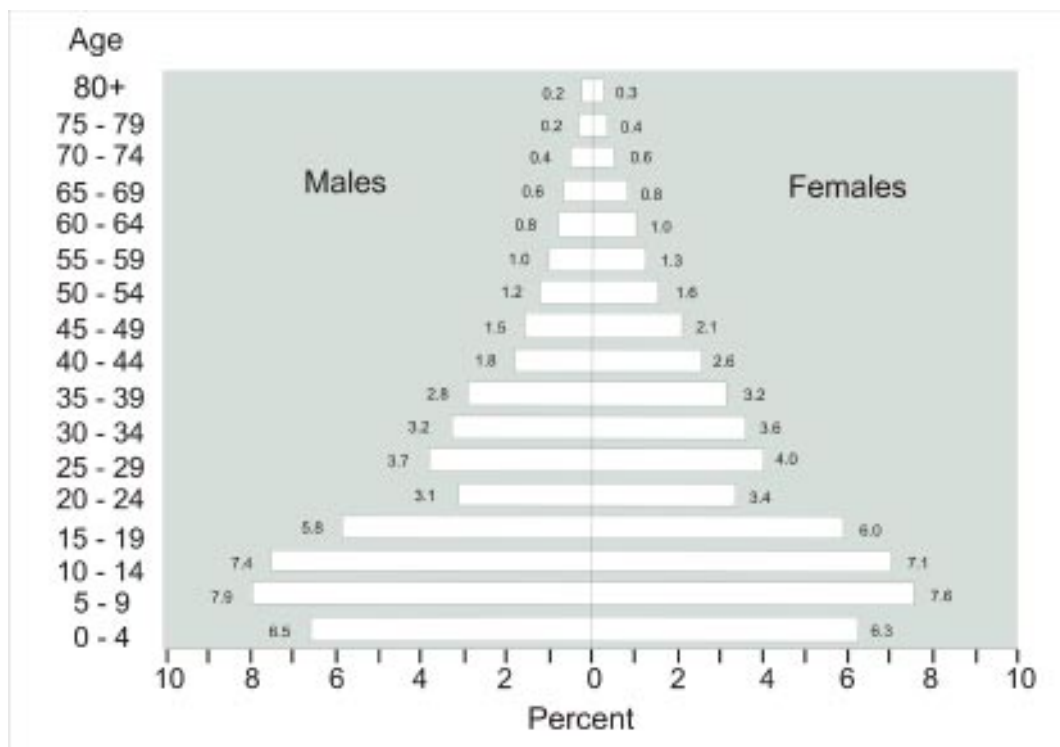


FIGURE 4.6. Age and sex distribution of Cambodian population in 1998 (NIS 1998). Note the low proportion of the 20-24 year-old and of the adult men.

The bias in the population structure still affects the activities of the society (see FIGURE 4.6.). The most striking features in the figure are the minor proportion of the 20-24 year-old, born between years 1974-1978. Another civil war and disorder related feature is the proportion of the adult males. Especially the educated are missing from the population, as according to Chandler (1996:215), they were seen as a threat for the 'new society' of the Khmer Rouge. The form of the pyramid shows that the Cambodian population is expanding.

The proportion of the young puts two kinds of difficulties on population structure. Firstly, the population growth and problems in traditional livelihoods force the young to move into cities, where there already is competition on jobs. Secondly, as the young are often leaving their villages in order to find alternative income sources, the rural areas often have to rely on the elderly and the children.

According to Hughes (2006a:68-72), with respect to human development, the growth of the population at 2.5 per cent per year to an extent offsets the impact of economic growth on incomes. In addition, Hughes (2006) says, the benefits are not equally distributed within country. Sokhem and Sunada (2006:408) note that the standard of living continues to decline and gaps rapidly increase between rich and poor.

Surveys of investors have found that Cambodia is seen as a high-cost and unstable business environment, suggesting that the sustainability of the rates of growth posted during the 1990s is questionable. At the moment Cambodia's major investors are its regional neighbours. (Freeman 2002.)

Other foreigners mainly contribute through development cooperation. Official development assistance has grown from 3.7 per cent of GDP to 9.8 per cent, reaching US\$ 34.7 per capita in 2004 (UNDP 2006:345). As Cambodian economy itself is relatively modest, there is a danger of the international support to skew the economical development of the country.

The emergence of a free market in land and goods before the initiation of a peace process, although initially popular with ordinary farmers, quickly permitted the bias of wealth accumulation by members of the state and military. This was through the established networks of protection and patronage. (Hughes 2006a:70.)

TABLE 4.1. The basic human development values for Cambodia (UNDP 2006:283-337).

Population	13.8 millions
Annual population growth rate (%)	2.3 ^a
HDI	0,583 (129/177 countries)
GDP per capite value (PPP Us ^b)	2.423
Inequality measures - Gini index ^c	40.4 ^d
Adult literacy rate (% ages 15 andolder)	73.6
Life expectancy	56.2

^a 1975-2004

^b Measured by purchasing power parity, PPP.

^c A value of 0 represents perfect equality, and a value of 100 perfect inequality.

^d Survey year 1997.

TABLE 4.1. shows the weak economical performance of Cambodia in terms of GNP. Gini index exposes the unequal distribution of resources. The low HDI, adult literacy rate and life expectancy tell about the lacks in public educational and health care system. In Cambodia, of the more than 10 million Cambodians currently living in rural areas, over 8.5 million depend on natural resources to support their livelihoods (McKenney & Tola 2002:1).

Wealth in villages depends mainly on land ownership, tools and freedom of debts. The livelihood level also varies according to season along with the availability of rice (Keskinen et. al. 2002a:30;2002b:29,36). The amount of agricultural land being opposite to the amount of population is clearly seen in the studies of Keskinen et. al. (2002a:39).

4.2.3. Livelihoods and Water Uses

In microeconomics the main importance of water comes through fishing and irrigation. On larger scale water is needed for industry, hydro-power and navigation needs. The relations of these activities are assessed in TABLE 7.2. According to Öjendal (2000), the Tonle Sap is a crucially important source for food and living in Cambodia. The importance of the Mekong River Basin area for Cambodia is expressed by the vice-president of the national Mekong committee (CNMC) in this way: ‘while 85 percent of Cambodia is situated at the river basin, to develop the river basin is the same as to develop 85 percent of Cambodia.’ (Öjendal 2000:135.)

The results of the socio-economic analysis indicate clearly that the livelihoods of the population in the Tonle Sap Area are very closely connected with annual hydrological cycle of the lake (Keskinen 2006:474). According to Chandler (1996:6) the relation between the seasons, water, rice and the subsistence economy has remained same through the Cambodian history. This is mainly due to the flooding irrigation water and the fish migration cycle. According to McKenney and Tola (2002:1) most rural inhabitants depending on natural resources are subsistent, relying on one crop of rice per year, fish and other aquatic resources, and a range of forest products.

As studies of Keskinen et. al. (2002a; 2002b) show, Cambodian peasants gain their subsistence from various sources and environment is used in various ways. This fact of multiple ‘professions’ means that the people require as diverse environment as possible (Selin 2006). During his socio-economical case studies in 2002, Keskinen noticed, that the main source of livelihood in villages and communes appeared to be

surprisingly uniform, thus increasing people's vulnerability to the sudden environmental changes (Keskinen 2006:475). Mareth et. al. (2001) too, claims for more alternative income generation so that fishing efforts and hunting would not increase anymore.

Agriculture

Cambodian farmers have been cultivating rice for at least the last 2000 years. They mention that wet season rice dominates Cambodian agriculture, and is grown in all of Cambodia's provinces, but the largest concentrations are in the lowland areas around the Tonle Sap Lake and Mekong. There are different seasonal patterns of agriculture on rain-fed and irrigated areas resulting in different amount of annual crops and in the share of other livelihoods as a base of subsistence. (McKenney & Tola 2002:28.)



FIGURE 4.7. Livelihoods, mainly agriculture, are based on traditional practices (Ang Sang Sak).

Farmers themselves consume relatively little of livestock products and pigs and poultry, but they raise them in order to sell meat and eggs for cash (McKenney & Tola 2002:28, Keskinen et. al. 2002a:36). Farmers often grow rice during wet season and use the same land for cultivation of vegetables in dry season (Keskinen et. al. 2002b:30).

In farming, the distance to water basin is not as necessary as in fishing, because irrigation water is be received through rainfall, water canals or pumps. On the other hand landlessness and annual climatic changes are a significant problem in agriculture. The techniques in farming are not very effective, according to Öjendal (2000: 188), because traditionally land was abundant in Cambodia and there were few incentives to seek intensification of agriculture. This means that the production in Cambodia remains heavily dependent on the weather, as Hughes (2006a:67) mentions. Currently, forests can also be cut in order to gain agricultural land, as in Ang Sang Sak village (Keskinen et. al. 2002b:32).

Fishing

According to McKenney and Tola (2002), Cambodia's fisheries play a critical role in rural livelihoods by providing opportunities for households to diversify their livelihood activities, optimise their labour resources as well as give them access to an income-generating activity with very little capital investment and without land ownership. They also help to maintain or improve nutrition, as fresh and processed fish represent a significant source of protein (McKenney & Tola 2002:51). In the central state interests, according to Sarkkula (2006) the rural economy and the securing of the fish resources do not have similar importance.



FIGURE 4.8. In Cambodia, fishing is the main supplementary livelihood along with agriculture and at the same time the main source of protein (Prek Ta Kong).

Fishing has a suffering role in relation to built structures of hydropower and irrigation which limit the flow of the water and fish migration (Sarkkula, 2006). On the other hand preparation and use of certain fishing tools can decrease flooded forests and increase sedimentation. Sedimentation is harmful as it makes rivers shallower. Red sediment which comes from the upland and destroys rice when fields are flooded. (Keskinen et. al. 2002a:38; 2002b:32.)

According to Sokhem and Sunada (2006), other factor in addition to hydropower which makes the fishery conflicts solving difficult is the inextensive fishing legislation, different perceptions of government officials and other key stakeholders of the fishery co-management as well as the weak concept of community. There is also lack of resources and cross-sectoral coordination. Neither does the fishing lot practice encourage for fish stock conservation, because the lots are auctioned every two years. (Sokhem & Sunada 2006:412.)

Forests

Forests provide cooking fuel, timber for construction, materials for tools and household items, resins, vines, wild fruits and vegetables, livestock fodder, and medicines. Rural Cambodians also benefit from a range of important non-extractive forest values. These include cultural and spiritual values, rich flora and fauna diversity, and vital ecological services, such as stabilisation of watersheds to regulate flooding

and silting levels. Forest cuts in wetlands destroy the fish habitats. (McKenney & Tola 2002:5,63.)



FIGURE 4.9. Along with other products, local people gain fuel wood from forests (Ang Sang Sak).

Other Livelihoods

The biggest cities of Cambodia are characterized by service branch and tourism. Sihanoukville has waterfront by the Gulf of Thailand, whereas Siem Reap and Phnom Penh have connection to Tonle Sap and airports. Tourism has a twofold impact on water resources as there is a risk that it over-uses the groundwater resources (Sarkkula 2006; Mak 2003:83), but along with tourism the recreational use and environmental values might get more and more important.

Still, according to Öjendal, tourism is seldom mentioned in Cambodia in connection with the Mekong Basin development. Angkor Wat and the tip of the Tonle Sap is, however, one of the major tourist sites in Southeast Asia (and the world) as long as Tonle Sap or the surrounding forests do not disappear. Several other areas are suitable for tourism as well. (Öjendal 2000:138.)

In addition to tourism, globalization has brought industry to Cambodia. Hughes (2006a) writes that the only flourishing industry – garment manufacturing – is heavily dependent upon regional foreign direct investment. However, the garment industry



FIGURE 4.10. Angkor Wat temple is part of the Angkor World Heritage Site and also a major tourist attraction of Cambodia (Siem Reap).

has been the main contributor to Cambodia's growth and poverty reduction performance (Hughes 2006a:67-68). Industrial pollution, as reported from the local level, is already harmful for agriculture (Mak 2003:14).

Other Water Uses

Navigation worsens basin erosion and repels fish resources (Mak 2003:18) and this way worsens conditions for local livelihoods. There again, transport connections are useful for trade and tourism.



FIGURE 4.11. Rivers are important routes in transporting of the local products (Sangker River).

Hydro-power can similarly both benefit and impede agriculture and villages by flood control, but also by changes in the water regime. In addition to diminishing nutritive flood for fields, dams often increase sediment capture.

As the economic development and the population growth put the water resources under growing stress, understanding the interactions and interconnections between water, environment and society is an absolute necessity for balanced equal management of the basin (Keskinen 2006:463). Geography is a useful tool in these kinds of tasks.

4.2.4. Competition, Rights and Responsibilities

In Cambodia, the over-arching legal instrument is the Constitution of the Kingdom of Cambodia 1993. In practice, the user rights for the part of the areas are owned by private landowners, the private investors (fishing lots) or communities (fisheries and forests). Though, according to the Constitution, the state owns all areas, including the ones covered by water, within its territory. Moreover, the state does not only own the area, it is, according to the constitution, sovereign in managing water. However, Cambodian constitution is not always fully respected; or at least it is slow in being realized. (Öjendal 2000:203-204.)

Large-scale fishing works under fishing lots which are auctioned for private companies of fishing teams. Fishing lots are rather well supervised but the fairness and prices of the auctions are under suspicion (Sarkkula 2006). Agriculture, forestry and fishery concessions are for example granted by the government without sufficient consultation with other stakeholders (Mareth et. al. 2001).

The tradition of governments to sell user rights dates back to the French colonial times (Mareth et. al. 2001; McKenney and Tola 2002:86). McKenney and Tola write that in recent years, there have been fisheries reforms, decentralisation efforts, and greater focus on community-based natural resource management. In practice, community management — according to McKenney and Tola, broadly an effort to support and empower communities to continue their traditional uses of resources and encourage sustainable practices—implements the idea of ecological democracy. As free access has noticed to encourage to anarchical exploitation of the resources (Provincial officer 2006), community management is often hoped to bring some control (Keskinen et. al. 2002a:32;2002b:32).

Even if the increased community management has received considerable attention as a potential alternative (or complement), concession forestry remains the most dominant approach to forest management in Cambodia to this day. Banning of the collection permits in 1999 has not changed this practice much. Government's decision to give control of timber exports to the Ministry of National Defense, intended to generate timber revenues against the Khmer Rouge, has solidified the military's role in logging. (McKenney & Tola 2002:59,81.)



FIGURE 4.12. The principal purpose of the community management is to create awareness and strengthen the sense of responsibility of the local people (Ang Sang Sak).

Legislation

There is uncertainty of the jurisdiction of the areas, as the responsibilities and rights of the ministries are overlapping, also resulted by the insufficient legislation. According to Sokhem and Sunada (2006), natural resource related law reform has been slow, due to other higher political agenda, such as World Trade Organization

accession and Khmer Rouge trial. Public participation has been absent in the law formulation and it is assumed that there is also strong resistance by powerful elite to the reform (Sokhem & Sunada 2006:411).

There is an urgent need to complete natural resource assessments to facilitate planning and monitoring of natural resources management and the analysis of trade-offs. The current national legislation related to water use consists of

- land law (2001)
- fisheries law (1987)
- forestry law (2002)
- various sub-decrees (e.g. for community management of fisheries and forests)
- environmental protection law (1996)

(World Bank 2004:81, Sokhem & Sunada 2006:409.)

Land law from year 1992 has been criticized as it has failed to clearly distinguish between state and private land, to delineate a regime for state compulsory purchase of land, or even to establish mechanisms for reviewing of this, allowing land expropriation by state officials (Hughes 2006a:70-71). Still, it clarifies the status of most privately occupied land in Cambodia and provides the basis for a modern land registration system (World Bank 2004:80).

The current fisheries law is a remnant of the period of Vietnamese domination. It is universally regarded as ineffective and unconstitutional. Still, it is for the moment the only legal framework for the management of the lakes resources. (Mareth et. al. 2001.)

The forest law, like the previous ones, clarify the state's rights and obligations in management of natural resources, and associated sub-decrees define the policy instruments, such as commercial concessions and community based management. However, the hierarchy of claims to state natural resources is not described in the laws. (World Bank 2004:79.)

Also law enforcement was also concern of many interviewees. However, as Mareth et. al. (2001) state, the process of re-establishing the rule of law in Cambodia after thirty years of civil unrest and war, is still going on (Mareth et. al. 2001).

Competition

As seen of the interests of the riparian countries (chapter 3), there clearly is competition on water resources between the Mekong countries. Within Cambodia, the population growth and over-use have led to the decreased resources, for example the daily fish catch from Tonle Sap used to be earlier about 20 kg per family, as it is nowadays only about 2 kg (Keskinen et. al. 2002a:38; Heinonen 2006). As the Provincial officer (2006) describes the current situation: ‘earlier fishes kept people alive, now the people need to keep fishes alive.’

The Tonle Sap has been a site of increasing fishery conflict over the last 10 years, mainly between poor subsistence fishermen with more powerful private fishing lot owners (Sokhem & Sunada 2006:408). According to Sarkkula (2006), illegal fishing is a huge problem. It happens at wrong time, in wrong places and by wrong tools and the actions against this are few even if the malfeasances can be visible even daytime. Few actors want to interfere into this as one might get trouble. (Sarkkula 2006.)

As in fishing, the illegal use is common also in forestry, both on small- and on large-scale. Sarkkula (2006) sees small-scale illegal use resulting from poverty. Also land grabbing has become more and more common in recent years (Tola 2006; Sarkkula, 2006; Sokhem & Sunada 2006:410-411). Samrithy (2006) says that local people complain about insignificant penalties of land grabbing.

The next chapter expands on in discussion about the needs of the society, introducing the framework of the means to better understand the requirements of the different actors and the future in management and planning. The chapter also presents the new directions of planning and specifies the features of the natural resources in planning.

5. MANAGEMENT AND PLANNING

Taking equally account all the different interest groups in water use requires planning and interaction between the decision-makers and the water users. This study views the equality of the use of the water resources in Cambodia from these starting points.

5.1. Management from the Planning Perspective

Shortly, as planning is setting of future goals and means to reach them, management tells about the *ability* to plan and control actual scene, e.g. the use of water resources (see FIGURE 5.1.). Vice versa, in long-term view, planning can be seen as a means to manage. However, short-term management, implementation, is part of planning process (see TABLE 5.1.) and outside the focus of this study. This study concentrates on planning as one means to manage.



FIGURE 5.1. Relations of the terms power, governance and participation, to management, planning and development. The three first mentioned are related to power distribution as the three last mentioned specify the approach to the control of the resources.

More exact, management can be seen as process of being charge or running activities, like regulating resources and controlling the use or exploitation (Pearsall 2002:864) It can also be seen as dealing with situations in a successful way (Wehmeier 2005:933). This study concentrates on responsibilities and the success of the management system as a way to control water use.

5.1.1. Definitions for Planning

So what kind of process is planning? Hautamäki (1991) sees preceding action and making action rational as the most important elements of planning. Hautamäki sees that planning from the broad view is needed always when something new is created, is acted in a different way than before or when in general is tried to act expediently in the future. (Hautamäki 1991: 4,171.)

Flyvberg (1998:226) highlights the relation of knowledge and planning. In a way or another, all the planning theories handle this relation (Lehti & Ristola 1990:27). However, later the rational, comprehensive planning paradigm which expected really to foresee future circumstances, has given way to more flexible strategic planning which according to Sotarauta (1996:123) takes the dynamic circumstances as a starting point. Actually, within the last decade, the centralized strategic planning has, met the requirements of participatory planning. After all, Flyvberg's study (1998) shows that the rationality still has its role in reasoning of the made decisions.

From the point of view of this study, the definition for planning given by Forester (originally the expression of Stephen Plum in the University of California in Forester, 1989:20) seems also appropriate. According to Ilmonen and Peltonen (2004), Forester sees planning as 'organizing hope' which means that planning is not only problem-solving but also developing of the imagination of the members of the society on what is possible. Though, Forester mentions that it leads us by the questions about the way the planners communicate to the great audience (Ilmonen & Peltonen 2004:113.)

According to Hautamäki (1991:4), not to follow up or to plan actions ahead can also be a planned decision. Neither does planning entirely relate to the view of development – planning does not always require change but it can also have a goal of limiting change in new circumstances. Thus, planning emphasizes the creation of one's own goal instead of reaching certain stages.

From the Asian or the 'Southern' view, it is important to remember that the idea of planning comes already from the Age of Enlightenment along with the linear idea of time and the confidence in reason (Sotarauta 1996:51). According to Sotarauta, at the same time with Enlightenment the ideas of the possibility to plan social life and of affecting and managing the future were born. This Western view of development, however, does not always fit very well with the other culture's views (Vasko et. al. 1998:12). Even for the Western countries, the large-scale planning in the name of 'development' and 'progress' has brought numerous problems. One example is the activities of Tennessee Valley Authority (TVA), the point of departure for 'modern' water management (Öjendal 2000:58-59).

Another problem in regional and community planning, according to Hautamäki (1991:2) is that it does not seem to be able to make good use for history. Instead, he says, in planning new trends have always been searched and the previous ideas have been abandoned as outmoded. Hence, he finds that the regional planning has remained fragmented and shallow. The history of planning is full of shifts in the faith towards expert knowledge and ability to manage the future. Also the role of social, economical and environmental factors has been changing, and actually Murdoch and Abram (2002:134) emphasize the constant competition between the environmental and social aspects against the economical gains.

Sustainable development came to colour planning in the 90s in order to finally combine economical, environmental and social views. As Murdoch and Abram (2002:134) mention, in attempting to combine the competing, and at times, conflicting rationalities, development and environment, planning policy has often found it hard to maintain a balanced approach. Sustainable development is difficult to clearly define and operationalize which is probably the reason why sustainable development has not reached the role of which was cherished the hope in the 90's. Shiva (2006) claims, related to developing countries, that there is no capacity in poor countries to think about the future generations, as there is no capacity to think about the generation of today neither.

5.1.2. Planning as a Process

Planning can be described as an act or process (Wehmeier 2005:1151). These days, according to Viitala (1999a:202), studying processes of planning is seen as the core of planning theory. This idea was brought already by Faludi (1973:3,7). He claimed for procedural theory (planners understanding themselves as the ways in which they

operate), to be dominating in relation to substantial theory (to understand whatever the area of concern of planners may have been). He calls this ‘theory of planning’ instead of ‘theory in planning’ which would be substantial theory dominating.

Planning process starts by formation of the values and norms. As choices and decisions get more and more detailed and time perspective gets narrower, after strategic planning the last stage is to decide how to implement the plans. Viitala has created a field of planning (see TABLE 5.1.), based on the division of Ozbekhan in the sixties (Viitala 1999b:207). This model divides planning to phases called ‘normative’, ‘strategic’ and ‘operational’ planning. This study concentrates on the middle stage of planning but also touches the other stages.

TABLE 5.1. The field of planning (Viitala 1999b:5). This study concentrates on the middle column of the table.

THE FIELD OF PLANNING	Normative planning	Strategic planning	Operational planning
Environment and the generations of the future	the indicators of the sustainable development	the agendas of the sustainable development	the assessment of the environmental impacts
Civil society	the interpretations of the discussions of the civil society	the goals of the NGOs and the companies	complaints
General administration	the discussion on values of the political head of the country	strategic choices	budgets and master plans
Sectoral administration	the norms set up by the central state administration	the development goals of the sectors	the alternatives of the implementation

After the scope of the Viitala’s (1999b) table comes the ‘unplanned’, which is the reception by the citizen in real life, something Öjendal (2000:48) has described as ‘a non-perfect world’ in water management and on which the planners work hard for understanding it better.

Along with the stages shown in TABLE 5.1., the planning process goes through analysis of the context, then goals and implementation. The genuine idea of a continuous process is reached by internally or externally conducted evaluation and feedback. In practice, the limited time and human resources often make feedback collection less attractive than sticking on routines. Planning as a continuous process, but nowadays often fragmented into separated projects which have a certain budget and goal: this eases the control of funds but weakens the role of feedback (Silfverberg 2006).

As a solution to weak cultural experience or other resource deficits in planning, Silfverberg (2006) suggests an alternative idea called 'negative planning'. This would fit much better to development planning than the traditional way. Negative planning would first define what is *not* allowed. After that could be done everything else that allowed and needed. This would be much more flexible way and at the same time it would give more attention to ownerships and agency in the process (Silfverberg 2006).

Legislation, strategies and land use plans function as guidelines for planning and decision-making. The main difficulty is to keep them flexible for creativity and future needs, but at the same time ensure their ability for control. Formulating these guidelines is time consuming especially if interests are conflicting or resources are limited. Finally, the guidelines are interpreted by actors, according to their interests and knowledge.

5.1.3. Communicative Paradigm and Governance

Planning always has a rational undertone but rationality should still be understood in a broader way than just a short-term economical gain, as the general wisdom of action including also the ecological, ethical, aesthetic and human points of view (Hautamäki 1991: 171). According to Viitala (1999:204), reasoning is situated in the space of two definitional dimensions, instrumental and communicative.

New communicative paradigm has brought criticism towards rationalist, comprehensive approach of planning, thus against the instrumental reasoning. It had goal orientation, comprehensiveness and objectivism as its dominating elements. Communicative rationality instead is based on flexibility and plurality, interaction and learning. In addition, it highlights the relations of the actors. It is important to discuss who plans, for whom, in which conditions and what is sought by planning. (Jauhiainen & Niemenmaa 2006:18,62.)

Forester (1989) and Flyvberg (1998) have interesting views to communicative planning. Forester (1989:82) sees that planner as a negotiator and mediator that actively tacks between the interest groups. Flyvberg's study (1998) highlights the importance of power in planning. Forester (1989:101) sees that the planner who pretends to act as a neutral regulator may sound egalitarian but is nevertheless acting, ironically, to perpetuate and ignore exiting inequalities. But Stein and Harper (2003: 131,137) criticize Flyvberg of seeing everything as power because if planning theorists focus too much on power, it can blind them to other realities.

Communicative planning sourcing from Habermasian idea of communication based on interaction and life-world has been criticized from various grounds. One of the critics according to Jauhiainen and Niemenmaa (2006) is to set the parties of planning into an apparently equal position, even if that kind of situation is rare. In practice, entirely shared discourse and genuine understanding between the parties is almost impossible to reach (Jauhiainen & Niemenmaa 2006:64). Still, the appreciation of substantive social knowledge and plurality of real life as starting points are difficult to criticize.

According to Sotarauta (1996:63), the communicative view and the shift from traditional rational planning have brought new factors and stakeholders within the sphere of planning, increased complexity, dynamics and diversity. In consequence of various interests, negotiation and compromise become more important than technical rationality (Morgan 1996:167). The keys for solutions, the knowledge for the possible solutions, are spread to various individuals, communities and organizations which Sotarauta calls change from ‘the government of uncertainty’ to ‘governance of unclarity’. (Sotarauta 1996:54,63.)

In simplicity, Mäkinen (2005) sees that governance is a kind of cooperation crossing the sector borders where the combination of the actors changes along with problems and situations, without following the sectoral and institutional borders but interests. This highlights local and regional level practices (Mäkinen 2005:5, 107-108).

However, governance requires flexibility, ambition for mutual understanding as well as ability to exploit the tension between conflicts. It is important to remember that if power is decentralized, the responsibility to control development is decentralized as well. This means that power ends up being between different units, to their relations of interdependence, and this is where trust becomes important. (Sotarauta 1996:66.)

5.1.4. Participation

According to the current view the beneficiaries make the final impact, and that is why they are also seen as a good starting point for planning (Silfverberg 2006). In research activities related to water management, the participation of local people has also proved to be crucial, because local people provide invaluable insights in the interconnections between water, environment and society (Keskinen 2006:478).

Thus, the local people and their context related information are actually seen as more and more important tools for planning. The basic idea is that local people

should be taken into consideration during planning process in order to secure social and ecological sustainability as well as to minimize long term economical costs.

But the great audience can be brought into planning only through publicity (Viitala 1999a:206), information sharing is a base for any participation (EC 2003:12). The first level of real participation is consultation. It does not, however, concede any share in decision-making. At the second level, in active involvement, even sharing the responsibilities is possible. The choice of level depends on aspects like: the timing of public participation and the stage of the planning process, the (political and historical) context for public participation, available resources, objectives or benefits of public participation and the stakeholders identified to be involved. (EC 2003:12-13.)

Mäkinen (2005) reminds that at the same time as the meaning of the interaction is emphasized, and it seen to have actually an intrinsic value, the ultimate reason for interaction should be proceeding of affairs. This is why interaction should not be only exchange of thoughts and chitchat, but decisions need to be made (Mäkinen 2005:109-110).

Decisions and projects have different stakeholders depending on their impacts. A stakeholder can be any relevant person, group or organisation with an interest in the issue, either because they will be affected by the subject (victim, gainer) or because they have influence, knowledge or experience with the subject. To restrict the amount of actors, the guidance document for implementing the EU water directive introduced additional factors for selection, like the scale and context; involvement; and capacity for engagement. (EU 2003:15,63.)

Stakeholders can be limited to 'landowners in the area and those on whose living, working or other conditions the plan may have a substantial impact, and the authorities and corporations whose sphere of activity the planning involves' like in The Finnish Land Use and Building Act. According to the Finnish act, these actors should have 'the opportunity to participate in preparing the plan, estimate its impact and state their opinion on it, in writing or orally.' (FINLEX 1999.)

Other reasons to claim for participation in addition to the creation of tools for planning are to realize the rights of the local as well as to give local people tools for taking care of their living environment themselves. Ponnikas (2000:17-18) brings out different forms of participation from the citizen point of view; they can participate independently or supported by the administration, and they can use institutional or

direct means to affect decision-making. Though, Häkli (2006) has noticed that the official system has difficulties of reaching people's discussions in everyday life arenas, e.g. in public saunas in Finland.

The word democracy literally means "rule by the people." Its realization has often been criticized because of the difficulty to the representatives to stand for varying interests and the constituents to really be able to influence by voting. Flyvberg's study (1998:236) shows that formal democracy does guarantee nor transparency neither participation. Instead, everyday practices, commitment and taking account the divergent interests are highlighted as a base for governance and democracy (Flyvberg 1998:5,235; Sotarauta 1996:331; Shiva 2006; Mäkinen 2005:50).

According to Robertson (2004), decentralization denotes a process or situation in which powers and responsibilities are transferred from a central authority to other, usually to more local organs. The term can be employed in relation to the political decision-making process, to the distribution of powers between elected authorities and to the organization of the bureaucracy (Robertson 2004:132). This means creation of new decision-making bodies or new responsibilities within the composition of existing actors.

Local level is a good small scale platform to learn practices for participation. Because of the concrete results it can also be more rewarding than the participation within the time scale of public elections. According to Selin (2006a; 2006b), taking account the local people emphasizes the equal appreciation of the know-how of the different actors, not only the educated experts. The essential questions according to Selin (2006b) are, what people want, have they been consulted and do they have a chance to choose. Selin (2006a; 2006b) discusses specially about the ecological democracy, the view which is related to regions dependent on natural resources. In cities, neighbourhood or local democracy are more common forms to highlight the local voice.

5.1.5. Natural Resource Management

'Natural resource management can be seen as 'rational utilisation of environment to provide the highest sustainable quality of living for mankind.' (Tewari & Tewari 2003:442). This study sees natural resource management as planning and controlling of the use of resources, especially as an ability to succeed on this.

Sun et. al. (1989:1) reminds that natural resources can be used in various ways -they can be husbanded to maintain productivity at a sustainable level, they can be enhanced (to increase productivity), or they can be degraded. Shiva (1992: 207) actually gives a historical view to this. She writes that once exploitation had created degradation and scarcity, the management of natural resources became important in order to maintain continued supplies of raw material for commerce and industry. Important point here is the belief that the requirements of economy can be secured by moderate and controlled use. This view is called sustainable development. It came to politics in the beginning of 1990s, introduced first by the Brundtland Commission of UN in 1987.

Öjendal (2000:240) brings a more political view concentrating particularly to water management. His study tries to find out how the different cooperation stakeholders with their divergent needs may create situations of conflict. Mekong and Cambodia are taken contexts and the general purpose is to discuss about the role of water and risk to conflicts in development process. According to Öjendal (2000), water management is the result of institutional and actor-driven attempts at deciding who should do what with the water and how, when, and on which grounds it shall be done.

Öjendal (2000) sees two political dimensions in water management: it is on the regional (basin) level that the political discussions or agreement on water on sharing have to take place and it is on the local level where the repercussions, or benefits, are most directly felt. Actually, he sees that getting the water up is only half the job, the other is to produce simple, efficient and sustainable system for allocation. (Öjendal 2000: 240,293.)



FIGURE 5.2. At the local level, water management is often related to water sharing and redirecting of the water flows (Ang Sang Sak).

Öjendal (2000) proposes that regional cooperation in contrast to state-centrism, and ‘alternative’ in contrast to ‘mainstream’ policies hold greater chances to contribute to development without triggering destructive conflicts in the process. According to him there seems to be a major ‘learning process’ going on within the field of water management, and the consequences of this learning process provide room (or tools) for chance. These dimensions include for example increased relative scarcity and claim for regarding

water as a ‘good’, increased elements of governance and social point of view as well as multidisciplinary, holistic and integrative approaches. (Öjendal 2000:69.)

Mäkinen (2005) has focused on the governance process of the implementation of the EU Water Framework Directive in Finland. Because of the implementation view he used term ‘governance of water management’ (*vesienhoidon hallinta* in Finnish), though a bit outside the focus of this study. Still, he gives a Finnish example to compare to Cambodian circumstances. First, according to Mäkinen, in Finland water management includes all the activities by which the condition of the waters is tried to *maintain*. In the case of Mekong, to *develop* the basin physically is almost half of the discussion.

Another difference in the focus of Mäkinen (2005) compared to the Öjendal’s study (2000) about Cambodia is that in Finland water use emphasizes recreation while in Cambodia water has a sense to support livelihoods. In addition, in Cambodia the quantity of water is still an important question, while in Finland the quality of the water is mainly on focus. EU is at the moment rather different forum for cooperation than for example ASEAN or MRC. However, EU is the direction ASEAN tries to head for (Sillanpää 2006).

The most striking differences on the contexts of the management discussed by Mäkinen (2005) and Öjendal (2000) can be found at the aspects of scarcity and competition. According to Öjendal (2000), water scarcity and water competition is particularly relevant for many third world countries for two reasons: firstly, most poor countries rely heavily on agriculture for their existence. Secondly, the poorer they are, the more difficult it is for them to ‘buy their way out of scarcity’ and to defend (physically, morally, legally or politically) their present share of the available water resources. (Öjendal 2000:51.)

In general, most developing country institutions tasked with improving environmental management, such as environmental ministries or environmental protection agencies, are weak. They lack adequately paid experts, equipment, and operating budgets to design and implement effective environmental strategies. (Melnick et. al. 2005:95.)

5.2. Features of the Natural Resource Management in Cambodia

Sokhem and Sunada (2006) see that the discussion on natural resources management in the Mekong and Tonle Sap Basins must be structured around numerous interests

and differentiated perspectives within each country and in the entire region. The jurisdiction is overlapping (various provinces and countries by Tonle Sap and Mekong), there are various regional scales, perspectives (economic, political, and social) and disciplines (different financial and technological capacities, professional differences). (Sokhem & Sunada 2006:400.)

5.2.1. Planning in Cambodia

This study sees planning from the view point of long-term planning of the Cambodian government, NGO's and individuals. Especially the mirroring of the interests of the central public sector against the interests of the other actors is on focus.

According to Öjendal and Sedara (2006:507), whether we look at historians, sociologists, or anthropologists, among the recurring features are: exercise of power, social hierarchies, relational rigidity, patriarchal dominance, peasant docility, distance between the state and the people, a lack of general trust and social fragmentation.

Öjendal and Sedara (2006:508) claim that even within development practitioners, this seems to construe a self-perpetuating process which further reifies the perception of an ever-present and determinant, non-changing Khmer political culture. Öjendal and Sedara (2006) contest the widespread assumption that this culture cannot change, or rather that actors within it cannot 'act against their culture' even if they have a good reason. In other words, they question the notion of Cambodia as an unchanging 'conservative society'.

Uncapability or unwillingness for planning is, according to Pietarila (2006), a consequence of the regimes being for long time led by small powerful groups. Pietarila says that the decisions have been made quite irrationally so that the common people have not been able to plan their actions. Intimidation has also limited interest to take responsibilities (Pietarila 2006; Sokhem & Sunada 2006:411). At the local level the irregular rains hinder the plans of the villagers.

In terms of guidelines, in addition to legislation, Cambodia has policy frameworks for land and forests, but no for fisheries or water (World Bank 2004:80). Province-wide land use plans do not exist (Mareth et. al. 2001). Öjendal (2000:71) finds that in general the planning related to water management is rather rigid.

Instead of national plan for the utilization of the available water resources, a number of external initiatives have been taken by for instance Mekong River Commission

Secretariat (directly through its work) and reports of the UN-system and the World Bank. These initiatives constitute the base for water resources utilization planning in Cambodia. The reports are related to agriculture and irrigation, although the UN system is more focused on programming, institutional and policy set-up. (Öjendal 2000:207,209.)

5.2.2. Participation

In Cambodia, participation primarily has increased in form of empowerment projects, participatory methods in planning. Still, according to Öjendal (2000:227), local participation in decision-making process is often weak or very weak and Mareth et. al. (2001) mentions that government decision on development policy or plan is rarely released to the public. Women are seeking a more active political role and are supposedly becoming increasingly involved in local politics, assuming new positions, but they fight a male structural resistance that is not easily broken down (or even identified) (Öjendal & Sedara 2006:526).

The weak participation can be attributed to: e.g. a legacy from the authoritarian centralist system from the 80s, weak institutional structures and the legacies of the Khmer Rouge era (Öjendal 2000:227). Other reasons can be the features that historians, sociologists and anthropologists use to describe Cambodian society according to Öjendal and Sedara (2006:507): exercise of power, social hierarchies, patriarchal dominance, peasant docility, distance between the state and the people, a lack of general trust and social fragmentation.

However, as the review of Öjendal and Sedara (2006:525-526) shows, recently attitudes and actual practices of political life have clearly been changing, routine references to these features as an explain-all device does not suffice anymore; neither do casual references to Cambodia as an ancient, unchanging, unchangeable, conservative society. The local actors would still often require direct, individual and short-term benefits in order to be willing to take part into planning process (Öjendal 2000:172,187-188; Sokhem 2006).

Examples of participation

Empowerment can consist of learning new skills, better understanding ones rights or receiving of new responsibilities. One example of empowerment, mentioned by Sokhem (2006) is ‘village school’ (*Sala Phoum* in Khmer). It means research by the villagers themselves. As MWBP (2006) tells, the research methodology was

developed in Thailand. The method will be tried in fisheries, where villagers are increasingly alarmed by declining catches and *Sala Phoum* promises to provide valuable information (e.g. on fish spawning sites, fish migrations, nursery sites). *Sala Phoum* is part of the MWBP and will be carried out under the technical support and guidance of *Thai Baan* research. The research assistants will live in the villages for the duration of *Sala Phoum* – at least one year in the first instance. (MWBP 2006.)

In 1999, Participatory land use planning (PLUP) was introduced to Cambodia as a tool for sustainable resource management. A number of field experiments, mostly sponsored by NGOs and bilateral projects, have been undertaken at various locations. PLUP can be used as tool to facilitate local level planning processes for sustainable natural resource management in watershed areas and can also facilitate agreement on detailed regulations and management plans defined by local communities. (Backhaus et. al 2004:35-36.)

Decentralization

In addition to actual participation, more actors are taken along in planning through decentralization, which refers to delegation of political and administrative authority to the commune level (World Bank 2004:50). Democratic procedures have been in place since 1993, including three technically sophisticated national elections and a number of political institutions. Participatory development is being pursued through programmes such as the Cambodia Area Rehabilitation and Regeneration project (CAREERE) and Seila. (Öjendal & Sedara 2006:510.)

CAREERE is an UN-body, launching a new form of organization at the local levels in targeted provinces in an experiment on ‘decentralized governance’ with key ministries (Öjendal 2000:225). The SEILA program of the Royal Government of Cambodia is a national effort to reduce poverty through improved local governance (Backhaus et. al. 2004:34).

More concretely, in 2002 the Law of the Administration and Management of the Communes and the Commune Election Law were passed and constituted the formal start of a decentralizing reform. Actually, although political awareness is not very high in rural Cambodia, the ‘*tang pi ka ba chnaot khum*’ (literally, ‘since the commune elections’) tends to be recognized and remembered aside of the three other political events: independence from the French, Khmer Rouge takeover (and its reversal after the Vietnamese invasion), the UNTAC era. The local elections aimed at producing

Commune Councils, which are given a wide-ranging legal mandate to administer local society. (Öjendal & Sedara 2006:511-516.)

Beginning in 1998, the Ministry of Interior pursued the idea of massive decentralization. The ultimate aim of the decentralization reform, as expressed by a high-ranking government official, is to promote pluralistic and participatory local democracy and to contribute to the reduction of poverty. In practice, after this reform, at stake has been political control over rural areas, which became crucial in national elections. (Öjendal & Sedara 2006:510-511.)

The decentralization means that the nature of governance at the local level is expected to move toward becoming a mirror image of the stereotypes of Khmer political culture. There is a discursive change in terms of the perception of local authorities, and indeed of local politics. On a larger scale can be seen the birth of a discourse supporting the idea that the state can benign and exercise power on a popular mandate for the common good. Rules and arenas for political competition are different from what they used to be, and there are new and more different actors present: it is local elite groups – whether party-, patronage-, military-, kinship- or economically-based – that complete for the wider political space. (Öjendal & Sedara 2006:510-526.)

Still, the progress of decentralization is seen rather limited (Mareth et. al. 2001; Sokhem and Sunada 2006:411; Öjendal 2000:71), although World Bank (2004:51) making exception in terms of the new commune councils. Sithirith (s.a.:5) claims that in forestry and fisheries decentralization is taking place on degraded areas, leaving productive rich areas to private concession.

According to Sokhem and Sunada (2006:411) the weak decentralization is because government and its agencies not fully realigned their systems and because the responsibilities are not clearly defined. Centralized decision-making can be seen as the attention towards the capital, Phnom Penh. This can be result of different needs of the cities and the rural areas (Selin 2006) as well as the unawareness, understanding and weak interest on remote areas (Nummelin 2006).

5.2.3. Changes in Water Management in Cambodia

Cambodia's history revolves around the Tonle Sap Lake and the Mekong River. Angkor, capital of the former Khmer Empire and one of the greatest ancient civilizations in the Asia, is located in the proximity of the lake (Kummu et. al. 2006:510). Controlled water regime in irrigation is connected to the order and

prosperity of ancient times in the mind of the Cambodian peasantry. Wet rice cultivation has been the backbone of the in Cambodian agriculture since ancient times. (Öjendal 2000:175.)

During the Colonial Era (1863-1953/54), some water infrastructures were built, but the colonial state never succeeded in establishing a grassroots contact, and did not do much development work. After the independence (1953) a fair number of projects were completed. Compared to what was to come later, this period is often described as a 'golden era' and is often associated with good memories by the Cambodian rural population. (Öjendal 2000:179-181.)

Legacy of the Khmer Rouge regime (1975-78) has been major havoc to previous hydraulic regime, altered ecological chains and increased erosion. It also gave farmers bad experiences on working for an abstract common good. During the PRK- Period (1979-89), water management in Cambodia was characterized by the system for keeping political control - it was not very successful for instigating development. It faced also the difficult circumstances subsequent to the Khmer Rouge era. Post-UNTAC-era after year 1993 brought development resources, huge administrative changes, but continuity was lacking. (Öjendal 2000:183-186)

Recent Changes in Water Management

As mentioned, 1990s was time for many changes in governmental structures and relations, and consequently, in water management. As the embargo of the PRK government was over and UN peacekeeping operation started, according to Hughes (2006a:67), in the early 1990s, they resulted in the pumping of US\$3 billion in international aid into Cambodia over the next ten years. The country also joined the Mekong River Commission (1995) and Greater Mekong Subregion -programme was launched by Asian Development Bank (1992) and the Cambodian legislation reform was begun.

In addition, to the first elections after the Khmer Rouge regime, the greatest changes in water management since the beginning of the 1990s, were identified by Sarkkula (2006) as strengthened cooperation and grown aspiration for responsibility between the countries of MRC, the grown power of the donors as well as of ADB. In addition, the livelihood development was taken into a guideline (Sarkkula 2006). According to Bonheur (2006), people nevertheless still have poor access to irrigation water and to technology which they could use to intensify agriculture and other activities.

A change that has happened insidiously, and seen only afterwards from the aerial images, is land use changes (Sarkkula 2006). According to Tola (2006) and Sarkkula (2006), one of the main reasons is land grabbing, in which state gives the ownership of the land to private investors.

Actually, in 2006, World Fish Centre and the WUP-FIN project group (SYKE, TKK, EIA Ltd.) conduct a technical assistance project through ADB on the impact of the newly built structures like edges, roads and dams into the fish populations. The ‘Study of the Influence of Built Structures on the Fisheries of the Tonle Sap’ is financed by the Government of Finland. The water quality model developed for the Tonle Sap basin under the Water Utilization Program-Finland (WUP-FIN) Phase I (2001–2003) will be used and the Cambodia National Mekong Committee acts as an executing agency. (Sarkkula 2006; ADB 2005.)

In a nutshell, however, the water related activities in Cambodia are characterized by rivalry and over-use. As a new feature since the 1990s has become decentralization. Local expertism is lacking as a result of recent decade’s suspended tradition in public administration, research and education. The rise of principles of new water management, introduced by Öjendal (2000:69) in chapter 5.1., can be seen in the national and international policies (especially in MRC). But taking the principles into practice, into politics has been limited at least at the Mekong level (Öjendal 2000:165).

In the chapters 6 and 7, the study will review water management in Cambodia more profoundly, from the perspective of power and interest groups, concentrating on central state in particular.

6. POWER RELATIONS

The reason to study water management in Cambodia through the scope of power is that the activity is characterized by competing uses or interests. They create conflicts (see FIGURE 6.1.). Albeit using rather popular technique on describing the discussion on power, Morgan (1997:160,170), simply describes conflicts as tensions that are created when people think or want to act differently in mutual relations. According to Morgan, these conflicts of interest are ultimately solved through the medium of power.

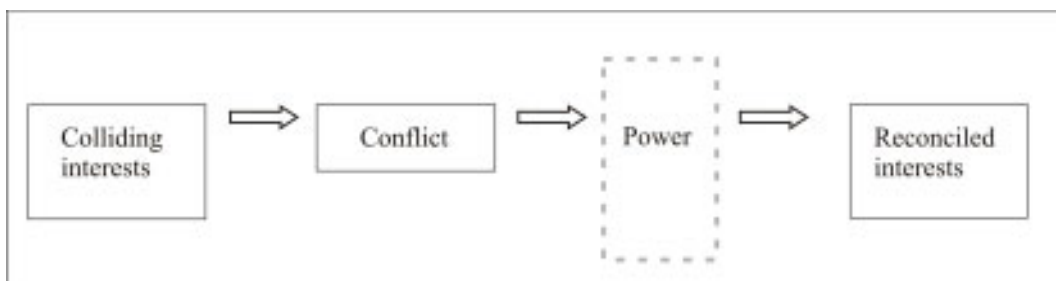


FIGURE 6.1. The relation of interests, conflict and power (Morgan 1996:167-170). This study sees power as a means to reconcile interests.

This chapter is due to answer to the second research question: Are there hierarchies, conflicts or possibilities for cooperation within the interest groups of water management in Cambodia? This question is approached through power and the role of the central state. At the same time, the resources of the actors are reviewed.

According to Pfeffer (1981:35), two tasks are required in assessing organizational political systems. In the first place, the principal organizational actors need to be identified on a meaningful basis. Secondly, he writes, the power of these various actors needs to be assessed. This chapter will proceed from resources and interests of the central state to comparing them to the resources of other national or local interest groups (the context and the international actors have already been introduced in chapter 3). Finally, the conflicting interests and possibilities for cooperation between the actors will be discussed.

6.1. Power as a Resource Base

Power is a rather ambiguous term. This part introduces the features which are seen as concrete indications of power base of an actor.

6.1.1. Definitions for Power

Morgan (1997:170) writes that there are many ways to define power and actually no really clear and consistent definition of power has emerged. Power can be an opportunity, ability, strength, right or authority to control or influence (Wehmeier 2005:1180).

In social relations, power as a resource (i.e., as something one possesses) is an alternative of seeing power characterized by some kind of dependency (i.e., as an influence over something or someone) (Morgan, 1997:170-171). The first of these was the view that Pfeffer (1981) has. To be exact, Pfeffer (1981:7) sees power as a resource being a store of potential influence through which events can be affected, a property of the system at rest – politics is ‘power in action’, it being gained, used, and lost. Here power is seen as a resource base, ability (to control and plan the use of water resources) of an organization or a group that constructs from other, more concrete resources. The study assumes that being aware and taking the resource deficits into account helps to create plans fulfilled more realistically.

According to Pfeffer (1981), the power of organizational actors is fundamentally determined by two things, the importance of what they do in the organization and their skill in doing it. Especially in Asia, the formal authority is not necessarily proportional to the actual power of the actors (Remes 1997:65-66) and therefore the official organizational charts are not given much value in this study.

However, it must be noted that this study actually discusses system, including organizations within it. That means a larger scale than in actual organizational studies. In addition, this study focuses on public institutions of the central state level.

6.1.2. Definitions for Resources

Resources are something ‘an organization or a person has and can use’ (Wehmeier 2005:1293). It is good to remember that even if the individual level is outside the focus of the study, the resources of organizations and furthermore the resources of the whole system (society here) consist of the resources of the individuals. However, in practice this relation is two-way and therefore this study rather sees the whole system as a resource for individual action.

The simplest division of the resources is to distinguish physical resources, human resources and organizational resources. Barney (1991:101) makes a same kind of

categorization. He sees physical capital resources consisting of plant, equipment, location and assets; human resources consisting of manpower, management team, training and experience; and organizational resources consisting of culture and reputation. Some resources, according to Barney, are tangible and physical such as plant and equipment, as others like a brand name are intangible.

Mareth et. al. (2001) has written about the resources of the national level in Cambodia. The features introduced by Mareth et. al. can be distinguished according to the division of Barney (1991) to financial resources (physical resources), to coordination, human resources and capacity, effectiveness of the management of funds (human resources), as well as to transparency and decentralization (organizational resources).

One does not have to literally own power resources, but only to control them (Marshall 1998:520). According to Hatch (1997:283) power can involve the use of coercion (the threat of force), rewards (control of material resources desired by the subject), norms (the legitimacy bestowed by cultural assumptions and values), and knowledge (control of unique and needed information). Hatch finds important also personal characteristics and opportunity. Morgan (1997:171) adds e.g. authority, interpersonal alliances and networks as well as control of counterorganizations and ability to cope with uncertainty.

This study searches for following factors describing the resource base of the actors:

physical resources:

- funds
- control of the armed forces
- control of material resources desired by the subject (enables also grabbing)
- control of counterorganizations

human resources:

- manpower (management team)
- knowledge (training and experience)
- interpersonal networks
- coordination

organizational resources:

- transparency
- commitment and internal trust
- decentralization
- reputation (authority, external trust)

As opportunity depends on a certain moment and issue in question, it is not given much weight in this study.

In organizational culture, one feature is social capital - commitment and mutual trust according to Mäkinen. Social capital helps in search of solutions, when the direction or the purpose of journey is not sure. The amount of social capital increases in interaction but this can take long. (Mäkinen 2005:6.)

Remes (1997) mentions the special importance of knowledge as a base of power in Asia, as it is the tool for personal appreciation and new social relations which further increase the knowledge base of a person. If the information is in written sources, it is seen to be valuable only if it can be reached by few. This could be the explanation to the weak level of information sharing in the organizations. In general, information varies a lot depending on who asks, from whom and how. (Remes 1997:65-66)

Between all the potentials for power, and their manifestation, lies one's willingness (and efficiency) to use it (Marshall 1998:520). Jyrkämä (2003:101) has made a clear division related to agency and actual use of resources. He used his analysis method in rather different context, the care of the elderly, but as its simplicity can also be generalized in other fields, too. His division to willingness (to want), ability (to can, know) and capacity (to be able) helps to show why an actor is not acting as assumed by outsiders.

In addition to achieving physical or manpower, organizations can increase their resource base by learning. According to Brown (1998), organizations typically learn either through direct organizational experience or vicariously from the experience of other organizations. Both learning paths crucially depend on positive and negative feedback. This can be e.g. reward and punishment systems. For an organization to develop a strong shared culture its members must have had opportunities for collective learning. This can be hampered by for example high staff turnover. (Brown 1998:100-101.)

Assessing the resources of an actor is not sensible if it is not known what the actor is trying to reach with its resources. These goals and values are called interests and are discussed next.

6.2. Interests

Interests are the base of the motivation for action, also in planning and management. They are helpful in order to find out the future directions of politics and decision-making, as cooperation and conflicts between the actors are based on interests and interests groups. Here the main interest groups are scarcely found by the help of the division of the sectors within a society.

6.2.1. Definition for Interests

According to Wehmeier (2005), practical definition of interests is ‘a connection with something which affects your attitude to it, especially because you may benefit from it in some way’. An interest party or in this study, an interest group is logically ‘a group of people who share the same aims which they want to protect’ (Wehmeier 2005:810). Thus, this study sees interests simply as preferences and aims wanted to be protected.

However, it is not all simple just to ‘choose’ one’s aim to be protected. The ability of individuals to know their best interests has been a subject for of a long debate in philosophy and social theory, based on concern that individuals may potentially be misled, misinformed, immature, or, more problematically, irrational (Calhoun 2002:234).

Interests often stem from values. In the case of water management, the perceptions about the meaning of environment and water as well as about the possibility to participate, all affect the attitudes and the goals of actors. Values are also weighted within a certain time perspective and geographical scale. Generally, short-term benefits often seem more attractive than possible benefits in the future. The meaning of the geographical scale of the needs is seen in practice in phenomenon called ‘Not In My Back Yard’ (NIMBY). It is resistance by the habitants against changes in nearby environment, even if supporting change in general – somewhere else. In this sense the interests of the planners and the individuals often collide.

6.2.2. Interest Groups

As Pfeffer (1981:37) reminds, the identification of meaningful political unit will also change over time and be dependent on the particular set of issue at hand. According to him, in organizations, just as in the larger society, people have multiple

memberships and interests that are cross-cut in a variety of different ways. The focus on this diversity of interests can be called a pluralistic view.

Pfeffer (1981) sees that what analysts of organizational political systems require, is some simple way of disciplining the analytical process to avoid overlooking important elements and to avoid reaching premature conclusions concerning the political landscape. Pfeffer (1981:38) uses example cases in his matrix, but this study forms interest groups from a broader point of view. However, opinions of the actors to particular issues would be a good method for follow-up of this research theme.

TABLE 6.1. The framework to analyse stakeholder networks (Silfverberg 2006). This study estimates the potentiality to conflicts and cooperation of an actor in form of text in chapter 7.3.

STAKEHOLDERS	INTEREST AND ROLE	PARTICIPATION IN THE PLANNING PROCESS
a) Essential stakeholders		
b) Potential useful partners		
c) Potential conflict partners		

This study forms interest groups by the help of the methods of Bryson and Crosby (1992) and Silfverberg (2006). They both suggest first to find interest groups, then to estimate their role and importance. Silfverberg has created for that a matrix, which is shown in TABLE 6.1. Bryson and Crosby (1992:363) do this by the help of two questions:

- who are the individuals, groups and organizations that are the stakeholders; and
- what are the goals, expectations, or criteria different stakeholders use to judge what they should want in the problem area and how they should evaluate any solution?

Taking account the level of participation of each of the actors brings the analysis further. The matrix of Silfverberg suggests to do this and also four additional questions of Bryson and Crosby (1992:363) approached it:

- How well does the status quo meet each stakeholder's goals, expectations, or criteria;
- how well are the interest groups able to contribute to the activities;
- how can each stakeholder influence the policy change effort;
- how important is each stakeholder to the success of the policy change effort?

The next task is to find potential stakeholders of water management in Cambodia and to assess their resources and interests. The relative weight of these four groups determines the prevailing interests and direction of water management.

Below the public sector, the next level of the society is the private sector. According to Melnick et. al. (2005) the role of the private sector for environment and well-being is to provide new tools for environmental sustainability, take part to policy dialogue and design as well as actively invest in prevention of the environmental degradation (Melnick et. al. 2005:123-124). In addition, private sector can support other actors through funding and service providing. In general, private sector is the engine of growth for the national economy.

According to Melnick et. al. (2005:117), the third level, NGOs, have their main role in providing public advocacy, designing locally adapted strategies and in translating policies into practical solutions. They can also support the implementation of strategies and investment programs on local level. The fourth level, the local communities, are the final implementers, and often the actual users of the resources. In addition, at the international level, this study distinguishes countries and commissions or other international communities working by the virtue of agreement.

6.2.3. State as an Actor

State as a whole can be considered as a set of institutions that has the authority to make the rules to govern society. It includes such institutions as the armed forces, civil service or state bureaucracy, judiciary, and local and national councils of elected representatives. (Marshall 1998:635.)

Any definition of the state has to recognize its complexity. This is because it is difficult to identify the boundaries of the state as funds many activities and civil society is given institutional access to the state. The boundaries of the state are also continually changing, for example through privatization and creation of new regulatory bodies. In addition, the state is the site of internal conflicts. There is no single state interest but, rather, various interests within different parts of the state. It

is not the state as a whole but various actors within the state who make decisions and implement policy. (Marshall 1998:635-637.)

The term government can designate both, the state or the political party currently in power, as distinct from the state as an enduring whole (Calhoun 2002:196). This study focuses on state and government as a set of institutions. This is referred here as 'central state' which in practice, covers the ministries and a bodies consisting of the ministers. This central state is mirrored against the international and local levels that include 'local state', consisting of administration at the provincial and subordinate levels.

In general, state possesses or has control over many of the sources of power through legislation and the armed forces, public funds and its formal authority. Still, it is required to have ability, capacity and willingness to use these means as well as to gain its authority. The main responsibilities of the state would be to plan, control, support and coordinate the national actions through legislation, strategies, plans and concrete decisions. Kontula (2006) sees that state has an important role in water management but in developing countries, often difficulties to run its task.

6.3. Power in Relations

Power of an actor would not be as interesting if it did not determine the partners to cooperate or compete with. In this study, the power relations can show, who plans and for whom.

6.3.1. Power as External Conditions

Power depends on relationships, context and environment. A person is not 'powerful' or 'powerless' in general, but only with respect to other social actors in a specific social relationship. (Pfeffer 1981:3). That is having more than others, or being more eager to use it than others (Räikkä & Wennberg 2000:27).

Power distributions can change. Actually, power relations are constantly changing and demand constant maintenance, cultivation, and reproduction. (Flyvberg 1998:231). As already discussed under the concept of planning, the shift from government to governance disperses power and responsibility. In practice, this happens in decentralization reforms that are now common conditions for the development cooperation and are rising also into the national politics.

Actually, according to UNDP (2006), decentralization has been a core theme in water governance reforms for more than a decade. In reality, however, the change would require empowerment of the actor in addition to the administrative reform: having a right to be heard is not the same as having the power to influence decisions (UNDP 2006:192). Thus, the real change requires organizational learning.

In principle, above mentioned resources of an actor and external conditions together cover about the same field than the SWOT analysis, where is internally estimated the strengths and weaknesses of organization and externally reviewed the threats and opportunities of the environment.

6.3.2. Conflict and Cooperation

Tensions created by colliding interests, are often seen as an unfortunate state which would disappear in more favourable circumstances. In a pluralist view Pfeffer (1981), Flyvberg (1998) and Morgan (1997), suggest otherwise and share the view that conflict will always be in organizations, either explicit or covert. The point is to be aware of them and to actively reconcile them.

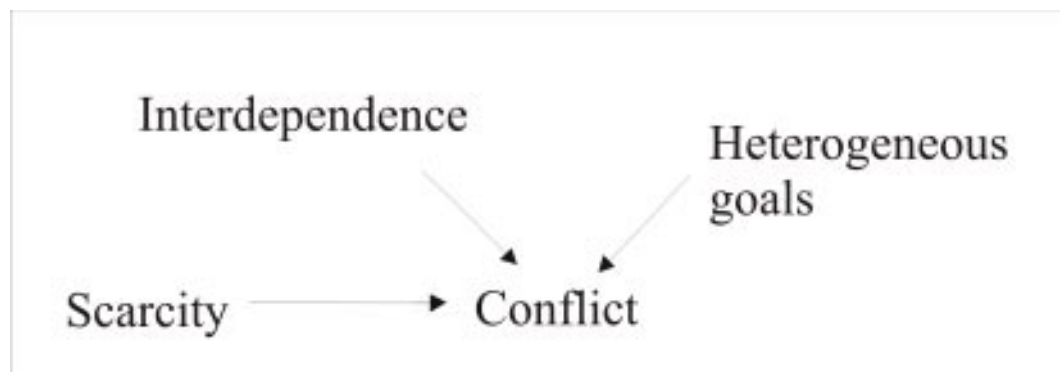


FIGURE 6.3. The model of the conditions producing the use of power in organizational decision-making (Pfeffer 1981:69). All of the three conditions are in play in water management of Cambodia and the Mekong Region.

Pfeffer (1981) has defined three main reasons for conflicts (see FIGURE 6.2.), three conditions for the use of power. These conditions are interdependence, heterogeneous goals and scarcity. Interdependence ties the organizational participants together, in the sense that each is now concerned with what the other does and what the other obtains. In the absence of such interdependence, there would be no basis for conflict or for interaction among the participants. Heterogeneous goals can stem from the heterogeneous beliefs about technology, or the relationship between decisions and outcomes. To the extent that resources are insufficient to meet the various demands of organizational participants, choices have to be made concerning the allocation to

those resources. The greater the scarcity as compared to the demand, the greater the power and the effort that will be expended in resolving the decision. (Pfeffer 1981:68-69.)

In addition to conflicts, also cooperation (acting for a common goal) is an important element of politics: in water management, Mäkinen (2005:111) reminds that none of the actors alone is able to govern the whole field. Both of the phenomena, conflict and cooperation can be created vertically as well as horizontally. That is within and between the levels, e.g. international, national or local levels or governmental and non-governmental bodies.

Whether the conflict eventuates in politics, the use of power in organizational settings depends upon two other conditions, the importance of the decision issue or the resource and the distribution of power. Political activity, bargaining, and coalition formation occur primarily when power is dispersed. When power is highly centralized, the centralized authority makes decisions using its own rules and values. (Pfeffer 1981:70.)

In order to take account the conflicts and cooperation, the Silfverberg's (2006b) matrix is used (See TABLE 6.1.), although the results are brought in form of text. This framework will be the main tool to outline the relations of the interest groups. The questions of Bryson and Crosby (1992:363) are used as additional tools.

The next chapter specifies the Cambodian actors, their interests, resources and relations related to water management. This will be used as the base of the interest group and SWOT analyses of the Cambodian water management of today.

7. RESOURCES AND INTERESTS IN CAMBODIA

The formal organization of the state administration follows a hierarchy of: National, Provincial, District, Commune, Village and Group, which nowadays exist only as an informal function (Öjendal 2000:199). The main actors at the central state level are National Assembly, ministries, Cambodian National Mekong Committee (CNMC), political parties and the army. The National Assembly forms the government and holds legislative power and has 123 members, which of 59 per cent are from the Cambodian People's Party, 21 per cent from the FUNCINPEC Party and 20 per cent from the Sam Rainsy Party (RGC 2006).

7.1. Central State Level

In fact, the central state level includes the ministries, political parties and military forces, the king and National Assembly. Here the focus however is on the three former actors as the king has little power and duties that have little to do with water management. National Assembly is reviewed from the viewpoint of the political parties. Thus, in this study central state level means government which consists of the prime minister and ministries. The relative resources of the actors at the central state level is shown in TABLE 7.1.

According to Öjendal, the Cambodian state administration has structures and working methods which were built on the Vietnamese system from the early 80s, and constructed for attaining political control and maintaining political stability. This can also be one of the consequences for unwillingness to share information. (Öjendal 2000:199-201.)

7.1.1. Ministerial Bodies

In water management, the primary institutions are those who regulate water access such as policies, plans and laws (Öjendal 2000:174). In Cambodia these institutions are ministries. In general, according to Öjendal, the relations of the ministries in Cambodia are complicated, as on national level the division of labour between ministries and departments is not clear-cut. In addition, the administration became, after the 1993 election, deeply politicized, reinforcing inter-ministerial strife. Even

the donors have inconsistent approach to different ministries. The constitution is also rather new and working methods still have to settle. (Öjendal 2000:200-201.)

National Mekong Committee

National Mekong Committees (NMCs) are cooperative bodies of the ministries in water management. According to Öjendal, the NMCs are supposed to coordinate various ministries on a national level and serve as a messenger between the national and regional levels. Still, their role is not entirely clear. (Öjendal 2000:118.)

In spite of having a key function and a mandate, Cambodian National Mekong Committee (CNMC) seems to have generally weak tools in the water management compared to the ministries (Sarkkula 2006; Sokhem & Sunada 2006:407; Öjendal 2000:201) because of the weak capacity and the internal political situation, as after 1993 Cambodian political regime was build up on compromises (Sokhem 2006). In reality, the ministries make quite independent decisions within their own sector, sometimes even directly with another Mekong countries, e.g. with China (Sarkkula 2006).

According to the ministerial sources interviewed by Öjendal (2000:200), CNMC argues that it is the only cross-sectoral body in the country and therefore the only agency capable of assuming an overall water coordination and responsibility. CNMC has direct link with MRC, but is less involved in GMS and ASEAN even if ADB has supported the CNMC with technical assistance since 2003 to define the institutional framework of the [new] Tonle Sap Basin Management Organization (Sokhem & Sunada 2006:410).

However, Sokhem and Sunada claim for the more powerful Basin Authority, that the function of which would be to absorb most or all of the functions of line agencies. At the Tonle Sap region a major step towards the establishment of environmental governance structure was taken when UNESCO recognized the Tonle Sap Lake as biosphere reserve (TSBR) in 2001, its secretariat being established within CNMC. (Sokhem & Sunada 2006:410-414.)

Ministries

The 1998 established Ministry of Water Resources and Meteorology (MOWRM) has a strong control in the CNMC because it is currently chairing the Committee (Sokhem & Sunada, 2006:407-408). In practice, other ministries have to get the

approval of the MOWRM for funding projects and programs related to water resources (Sokhem 2006).

Like in any country, according to Öjendal (2000), water is such a crosscutting issue that it is a concern for many different actors within the state. Everybody wants to be the water-ministry, since there seems to be a lot of money in that. (Öjendal 2000:200). Now MOWRM is establishing itself as an apex water body as a developer of water law and policy, and irrigation networks (Sokhem & Sunada 2006:410). Currently, irrigation sector has been one of the main issues being strongly invested (Sok 2006) and MOWRM has been criticized of its interest in 'big things' (Öjendal 2000:201).

The Ministry of Agriculture, Forestry and Fisheries (MAFF) governs interestingly three conflicting sectors. Fishing department under the MAFF manages and licenses fishing lots and concessions and other fishing zones, drafts fishery related law and regulations. It is also involved in development of community-based fishery. Forestry administration is taking care of forestry and wildlife related policy, but is less involved in Tonle Sap (Sokhem & Sunada 2006:410.)

Forests show the overlapping responsibilities of the ministries: MAFF maintains jurisdiction over much of Cambodia's forests, while flooded forests are under the management of the Department of Fisheries (DoF) and protected areas are under the management of the Ministry of Environment (MoE) (McKenney & Tola 2002:75). Agriculture and fishing direct the interests and responsibilities of MAFF mainly to the rural development.

In addition to protected areas, the general interest of the Ministry of Environment is the quality of the water (Sok, 2006) and nature conservation. MoE is connected to the Tonle Sap Biosphere Reserve (TSBR, inter-ministerial coordination body) administration, the development of the harbour in Tonle Sap and manages the protected areas of Tonle Sap (Sokhem & Sunada 2006:407, 410).

Ministries of Foreign Affairs, Finance and Trade are members of CNMC and at the same time have active connections to GMS and ASEAN (Sokhem 2006). Ministry of Public Works takes care of the navigation, infrastructure development and channel dredging, and used to lead the Mekong regional development 1957-2003. The Ministry of Industry, Mine and Energy is interested in hydropower and licensing exploitation of river bed sand and gravel. (Sokhem & Sunada 2006:410,413.)

Interestingly, Sokhem and Sunada (2006:410) do not mention the ministry of Rural Development, Tourism, Planning or Ministry of Land Management, Urbanization and Construction as the key ministries in water management. Non-sectoral ministries such as Women's Affairs and Justice have legitimated interests too (Öjendal 2000:201) but they are not part of CNMC. In general, the interests of the ministries are connected to different uses of water (see TABLE 7.2.).

7.1.2. Army

According to Hughes, there has been strong concern to retain or attract the support of military generals. She even describes it as the single most important driving factor of Cambodian politics outside of electoral politics, since 1994. Defence expenditures reached 50 per cent of the government's total budget in the mid-1990s, and regularly ate into allocations for basic services such as education and health. At the national and local levels, army has a strong role in natural resource management through control of some concession areas and fishing lots. (Hughes 2006a:72-73.)

Khmer Rouge armed forces controlled forests and concluded profitable deals with Thai entrepreneurs to exploit timber (Chandler 1996:241). At the same time, according to McKenney and Tola, the forest concessions of the government intended to generate timber revenues for the Royal Cambodian Army's campaign against the Khmer Rouge. However, this actually solidified the military's role in logging for a longer time (McKenney & Tola 2002:81). Selin (2006) finds that nowadays the logging is supposed to benefit generals, and it is related for example to foreign furniture industry. The military and police general are said to be able to hold these business activities through their partner companies (Sarkkula 2006).

7.1.3. Political Parties

Cambodian People's Party (CPP) has the strongest position in the country, from villages to national level (Hughes 2006a:69; Öjendal 2000:199). CCP – sourcing from the former party of state in the 1980s – proved most adept at gaining advantage of the new international framework of the 1990s, and consequently dominates Cambodian politics in the early 2000s (Hughes 2006a:69). The Prime Minister Hun Sen is the front man of CCP party and his patronage politics and reforms seem to give him a lot of visibility. According to the interviewees, close relations with the Prime Minister are often the key to success in terms of important posts and deals at the national level.

National United Front for an Independent, Neutral, Peaceful, and Cooperative Cambodia (FUNCINPEC), another of the two major parties, traces its roots to Norodom Sihanouk, the Cambodian independence leader and former King of Cambodia. According to Öjendal, these two major competing parties (CCP and FUNCINPEC) formed a coalition government in 1993. Because of an outbreak of political violence in 1997, this government was replaced by the CCP-dominated one. (Öjendal 2000:171.)

Sam Rainsy Party (SRP) is the third member party of the parliament. According to BBC (2005), it is formed around Sam Rainsy who was expelled in 1994 from the FUNCINPEC party and a year later founded his own party which got its current name before the 1998 elections. It has had various disputes with the Prime Minister in CCP and National Assembly, for example related to the 1997 grenade attack during a political rally (BBC 2005). In addition, as Cambodians are politically very active, there are various other political parties in line for the next elections (Sokhem 2006).

In terms of interests, political parties need publicity. In Cambodia, in practice, this means patronage politics and need for financial resources. Cambodian political parties are characterized by personal leaders – for example the supporter of communists (CCP) or royalists (FUNCINPEC) – rather than by clear differences in terms of political ideologies (Selin 2006). The parties strongly affect the agendas of the ministries and the decisions of other national and local actors (Sarkkula 2006).

7.1.4. Resource base

Physical Resources

In terms of physical resources, Cambodia is said to be poor. That can be true in terms of the GDP or the financial resources of the population. However, Cambodia as a whole is not seen as lacking money. Instead, the official revenues are pocketed (Sokhem & Sunada 2006:411; Mareth et. al. 2001) to benefit the elite and according to Mareth et. al., the management of foreign aid and other public expenditures is ineffective. For example, as Bonheur (2006) mentions, tax collection in Cambodia is minimal. Land tax is resisted both, by the poor farmers and the elite which owns a lot of land (Bonheur 2006).

Public spending is fairly allocated neither to the general resources (Mareth et. al. 2001; Sokhem & Sunada 2006:411), nor to the provincial administration. For instance, the revenues generated from the tourism in Siem Reap is said to be substantial,

while the provincial infrastructure is remained poor until today (Mareth et. al. 2001). In addition, the common salary for a public official or police is only US\$20-40 a month (e.g. Bonheur 2006; Sokhem 2006; Sarkkula 2006). This is related to too large amount of staff who is often even unqualified (Bonheur 2006).

Paying informal fees and having social relations to more powerful actors are needed at state level of Cambodia in order to be able to carry out affairs. In addition, the political parties claim for funds from their members. These requirements combined together with low salaries of the officers fuel the cycle of corruption. (Sokhem 2006.)

As corruption is often explained as a common means to compensate the level of salaries compared to status (Remes 1997:69), in terms of management it is rather seen as an imbedding treadmill which the individuals are seen powerless to affect (Bonheur 2006; Sokhem 2006; Sarkkula 2006). Nissen (2005:8) highlights the relation of corruption to trust and the Buddhist logic of karma and punishment.

In addition to public overhaul of the funds that the national agencies use, Sokhem (2006) claims for more open discussion of the values in politics as in general he sees nepotism and patronage politics also as forms of corruption (Sokhem 2006; Sokhem & Sunada 2006:411).

Human Resources

According to Mareth et. al. (2001), the legacy of the Khmer Rouge regime still has great impacts on the human resources and capacity of almost all institutions and the human resources development has been slow due to the financial deficit and poor education system. While at the national level technical expertise and skills are gradually improved for the last two decades, human capacity is still critical at the provincial level (Mareth et. al. 2001). The deficit of know-how is further aggravated by the brain drain as the possibly trained staff moves to other jobs (Bonheur 2006). This can be because of better salary or working conditions somewhere else (Sokhem 2006).

The state should take care of the dialog and coordination between the stakeholders on international and local levels – here CNMC and its ten ministries have an important role. According to Öjendal (2000:71,217), however, the role of the state and its various institutions and the relation to international development community is troublesome and the management of the available water resources is not efficient on the national level. The governance structure is highly compartmentalized and lacks

a mechanism for feedback and coordination in water related issues among many key ministries and committees (Sokhem & Sunada 2006:407). Lack of coordination, according to Mareth et. al. (2001), has currently resulted in data deficiency, lack of coherent policy, institutional conflicts, wasted money and unclear mandate.

Organizational Resources

In general, the Southeast Asian states are relatively weak (Selin 2006). In terms of organizational resources, Cambodia has been situated to the context of weak state and strong society (Peou 2000:410) and at the same time it is said to have remaining patronage structures, semi-authoritarianism and the exercise of patriarchal power (Öjendal & Sedara 2006:526). The factors together tell about the weak legitimacy of the state and about the need to rule with a heavy hand and in a centralized manner.

Cambodia is classified as a low-trust society, that is a society with low level of trust in anonymous others and institutions (Nissen 2005:8; Pietarila 2006). According to Öjendal (2000:216), this is seen as a lack of social cohesion in the villages as well as the political elite being suspicious towards each other and towards 'change'. For a long time the villages have only seen the downside of 'having state' and therefore it has a long way to go to regain confidence and legitimacy from the side of the rural communities (Öjendal 2000:277). Sokhem and Sunada (2006:412) find Khmer Rouge's devastative practice of agrarian collective cooperation or community in late 1980s as important reasons for weak concept of community in Cambodia.

Öjendal (2000:224-225) finds signs that recently, the weakening of the village cohesion has found nourishment from the liberalization of the economy and the following monetarization of relations, stopping at the nuclear family and the galloping labour migration. In fact, this lack of trust shows up as weak appreciation of politics, low ability for mutual cooperation and like in the interviews as the state being 'an enemy'. The presence of the NGOs has helped to gain initial confidence from the local population (Öjendal 2000:278).

Transparency is considered as one of the crucial issues of the present governance action plan and public reform, which is launched by the Government of Cambodia (Mareth et. al. 2001). However, it is observed that transparency is often lacking across all administration levels (Mareth et. al. 2001; Öjendal 2000:71). As Remes (1997) mentions above, limited flow of information or weak education system can also be conscious tools for gaining power.

The information is often shared in form of text, thus problematic for the large illiterate share of the population, or in Khmer or English, problematic for the fisheries of which many are originally Vietnamese (Selin 2006). Mäkinen (2005:108) mentions the lack of a common language related to international agreements like the EU Water Framework Directive. Sok (2006) mentions that during the past decade, the networks of the political actors have become more complicated. This could be result of the increased funds for the administration.

Wider information flow and collaborative discussion events between the actors have been suggested as solutions for current institutional impediments, trust building and mutual understanding (Mareth et. al. 2001; Selin 2006). More concretely, according to Mareth et. al. (2001) this would be public forums, workshops and seminars that can be regularly conducted at national and provincial levels to facilitate dialogue. Also NGOs can have their role. There is also lot of hope directed to the new generation as the older, more conservative generations retire (Sokhem 2006) as well as the example given by other countries or ASEAN (Bonheur 2006). According to Bonheur (2006), training, education and foreign support have already improved institutional capacity.

7.1.5. Interests

TABLE 7.1. Relations of the central state level actors (see chapter 7.1.).

Central state level	Interests (original role)	Resources
Individual key ministries	vested interests, sectoral aims (to regulate water access such as policies, plans and laws, together to secure harmonious development)	+ funds + networks - the division of labour not clear-cut - compartmentalized structure
Cambodian National Mekong Committee	conflicting, MORWM and irrigation dominate (to express the interests of the national level to MRC and vice versa, to coordinate various ministries)	+ cross-sectoral + key function and a mandate + connection to the international level + internal conflicts - unclear role - secondary role compared to the ministries
Political parties	front men dominate (to support a common ideological basis)	+ funds + can offer publicity - requires funding from members - weak ideological basis
Military and police	to gain from natural resources (security and protection of the natural resources)	+ armed forces + control of the natural resources, funds

As the official interest of the state is achieving food security, increasing the rural productive base, and promoting political stability (Öjendal 2000:203), actually, remaining in power is said to be the biggest political agenda at the moment in Cambodia. (Sokhem 2006). According to Hughes (2006b:469), since the beginning of Cambodia's economic and political reform process around 1989, two entwined imperatives have emerged for the central government: the need to extract material resources and the need to win votes (Hughes 2006b:469). To support these goals, supporting military generals has been important (Hughes 2006a:72-73). In general, water management at the state level has been criticized because of the little respect for 'people' and little (positive) attention to water issues (Öjendal 2000:71).

Individual interests at the central - and local - state levels seem to be the income generation, additional education and social networks. The central level seems to be interested mainly in the vested interests of the elite. Actually, according to Hughes (2006a:77), the plans for rationalisation of the state and of governance remain hostage to these interests related to earlier created networks. As written, the problem is that the representatives of the government are actually representing the interests of one agency in the government, for example their ministry (Sokhem 2006; Sarkkula 2006).

7.2. Interest Groups at the Local Level

In Cambodia, the rules and arenas for competition are different than what they used to be, and there are more, and other, actors present (Öjendal & Sedara 2006:526). Even if the central state has some means to determine which actors can have voice within the society, the initiative of the local level can act as a counterforce against the interests of the government.

7.2.1. Local State Authorities

In Cambodia, the local level consists of province, district, commune and village. The administrative hierarchy is fairly strictly adhered in bureaucratic matters (Öjendal 2000:199).

The province is for most Cambodians the centre of administrative power, and is to a large extent a reflection of the central level with courts, line ministries and so on. The strength of the office of the Phnom Penh government appointed governor varies depending on the person in charge and on his local power base. The provincial governors are often controlling their 'own' armed forces, or have close relations to

those who do. Irrespective their formal position, normally the CPP people have the greatest influence over provincial affairs. Outside Seila, civil servants from the province administration rarely visit the villages. (Öjendal 2000:199-200.)

The District can be described as the centre for rural administration. It does not have the resources to run line-departments as the provinces do. Rather responsibilities are divided along personal lines. The District officers meet regularly with the provincial authorities and with the commune offices; sometimes they meet directly with the village chiefs. Commune office is next in this bureaucratic hierarchy and it is the last level which has an office building and a formalised organisation. This is also the level which involves quite a lot in day-to-day affairs of the villagers and therefore also draws a lot of discontent. (Öjendal 2000:200.)

A new feature at the commune level since 2003 is the commune councils. There are 1621 Commune councils in Cambodia (World Bank 2004:51) and according to Öjendal and Sedara (2006), they are legally given a wide-ranging legal mandate to administer local society. It is also outlined in the law - although instructions for this have yet to be issued - that the commune council can draft and promulgate laws, collect taxes, manage certain natural resources, provide security, support village democracy, and insert a certain degree of 'development dynamic' into rural society (Öjendal & Sedara 2006:511). However, for instance the fisheries and forestry laws, poorly define the roles and responsibility of commune councils, maintaining great power for the sectoral ministries (Sithirith s.a.:2).

As Öjendal mentions, in the village, the chief is the only person employed by the state. Financial resources and technical capacity for investment and extension services are extremely limited (Öjendal 2000:200). As a whole at local level development, Sarkkula (2006) sees that the political parties and village chiefs have considerably power. Village Development Committees (VDCs) are new forms of village level decision-making. According to World Bank, along with other local level committees, VDCs have been established in nearly 8,000 villages by open elections. Many donor- and NGO-supported rural development projects and programs have worked within these rural development structures since their establishment. (World Bank 2004:53.)

Öjendal's (2000) case studies show that the local authorities can offer great support in form of guidance and regulation, even if the central state would not be interested to help local communities. The third of the case studies shows that cooperation between the province authorities and the NGOs can be productive, and the initiative

provincial authorities can even launch well-tried practices elsewhere in the province, too. However, the local state can unfortunately only assist to a certain extent, one reason being their limited resources. (Öjendal 2000:240,264,280.)

7.2.2. Private Sector, Media and Research

According to Bonheur (2006), private sector does not vary much in Cambodia and there would be needed a more stabile foundation for investors, but also better control. The weak governmental support of private sector has distorted labour market: government job is more appreciated because of the insufficient security, salary, continuity and rights of the private sector and as a result, public sector is crowded (Bonheur 2006). Actually, many civil servants remain on the payroll only to benefit from “insider status” and connections, but have stopped going to work in order to pursue secondary occupations in the private sector (Hughes 2006a:73).



FIGURE 7.1. Frequent stalls by the side of the streets demonstrate the large proportion of informal activities in Cambodia (Battambang).

Regarding to the economical cooperation in ASEAN it is worthwhile for Cambodia to develop its private sector competitive in relation to international competitors. The private sector in Cambodia consists largely of small enterprises, which are not formally organized or paying taxes, not at least influential amounts. Informal sector is not a source for public funds, nor for reliable employment and services. However, the tradition of informal action might have also helped to create the active NGO sector.

Cambodian press is described as relatively free (Selin 2006). However, from the point of view of the journalists, there are still various drawbacks in Cambodia (Reporters without borders 2006). There are a few English newspapers – mainly for expatriates and intellectuals in Phnom Penh – and various Khmer language newspapers. But as large segment of the population is illiterate and living in remote areas, radio and TV have a more important role.

TV is actually a kind of status symbol, and no matter how poor people are, it is common to obtain one fuelled by battery. However, Sokhem (2006) criticizes that TV in Cambodia is mostly motivated by business incentives and there are few programs which would have an educational function, even if the role of media would also be to fill up the gaps of knowledge of the society. Nowadays internet is gaining more and more importance as a source of information, and the biggest cities already have a selection of popular internet cafés.

The research and education sector in Cambodia is weak. Sok (2006) sees especially the unsystematic and unstandardized collection of data problematic. However, Cambodian Development Resource Institute (CDRI) clearly comes up as a leading research institute in Cambodia with its partnerships with various, even international level actors. CDRI undertakes programmes and projects and offers library, information and publishing services, and both hosts and participates in conferences, seminars and training programmes on development issues (CDRI 2006).

According to Duggan (1997:13), the broad picture for higher education by 1996 can be summed up as follows: student demand for higher education exceeded supply; university programs were sub-standard; access to programs was heavily influenced by unofficial fees; and finally, externally financed programs favoured foreign language training rather than the mainstream academic programs. In 1997 the concern of Duggan (1997:21) was that the higher education system will stagnate, or if left to private investment, it will rapidly develop into a privatised system beyond control of the Royal Government and its long term education investment framework.

According to Sarkkula (2006), currently the universities in Cambodia are not able to create outstandingly new capacity for the society. Higher education has a bit biased focus, as the social sciences are scattered in different kind of institutes and higher education programmes have little diversity, concentrating on administration and business management (Sarkkula 2006). Objective research would be needed in order to support the evaluations of the development projects and other issues that e.g. NGOs are carrying (Selin 2006). Sokhem (2006) speaks for collaborative research of people with different cultural backgrounds, to support Cambodian resources.

In basic education, the lowest levels are offered free by the government, but there exists various fees that teachers often gather because of their low salary (Samrithy 2006). However, children have a great significance on bringing lessons learned to their family. And much appreciated Buddhist monks are also important actors in terms of education. In Cambodia they have been informing people for example about

the bird flu and in history they had the role of being responsible about providing education. Similarly, the old people have needed authority to inform people. (Sokhem 2006.)

7.2.3. Non-Governmental Organizations

The first local NGO was established in 1991. Since then, the number of local NGOs and associations has increased exponentially (ADB 2006b) and according to Samrithy (2006) there are over thousand registered NGOs. He says that they have emerged in a very short time, in about fifteen years. During the years NGOs have in general became stronger and more professional and all the time having more responsibility and support from the people (Samrithy 2006). In general, the potential of NGOs vary and depend on the political relations and publicity (Pietarila 2006).

Concrete tasks for local NGOs has been supporting of the community fisheries, credits, rice and cow banks and in general fund raising in order to e.g. improve infrastructure (provincial officer, 2006). Although very active, the Cambodian NGOs are very small and have limited resources. There are different views about the strength of the role of NGOs in relation to government but compared to resources, their role is significant. (Sokhem 2006; Sarkkula 2006). Cambodian NGOs themselves mainly rely on international funding especially from INGOs but also from embassies in the country. It is very rare to local companies to support NGOs. However, there are cases that activities have been funded by producing for example hammocks. The workers of the NGOs consist mainly of Cambodian students and foreign volunteers. (Samrithy 2006.)

NGOs have some important roles in the Cambodian society. First, at the local level they support activities of the villages by human and financial resources as well as disseminate information from the central level. Second, at the national level they have advocacy tasks, expressing the complaints from the local level as well as judging policies or practices of the government or donor community. Third, NGOs also conduct lot of small studies in Cambodia. (Samrithy 2006.)

Sok says that the weak reliability and coordination of the NGO made studies is a problem. They also concentrate on strictly limited geographical area or research subject and therefore the results are difficult to compare (Sok 2006). NGO status has also been abused (Öjendal & Sedara 2006:526; Samrithy 2006). Öjendal and Sedara (2006) mention that some NGOs for example can be like private enterprises ran by various shades of the local elite. Samrithy (2006) tells that overlapping project

areas have earlier created conflicts between NGOs, as nowadays the competition on funds is more common.

According to Samrithy (2006), the special role of the NGOs stems from the capacity to fill up the communicational gap of the society between local and central levels because they are familiar with both, the local level situation and partly the policies of the government. NGOs are also helping the locals to gain confidence towards the local authorities (Samrithy 2006; Öjendal 2000:278). Öjendal and Sedara mention interestingly that some tensions have emerged also between the two important elements of decentralization - commune councils and NGOs. There exists for example mutual neglect or ignorance of each other's activities and NGOs can also direct their advocacy work against commune councils.(Öjendal & Sedara 2006:520).

In the interviews as the most visible or special NGOs were mentioned Fisheries Action Coalition Team (FACT) and Youth Star. FACT gains its power from combined interests of fisheries. According to Samrithy (2006), Youth Star has been successful in offering jobs for graduated students in districts and provinces instead of Phnom Penh. Samrithy (2006) and Sarkkula (2006) find that in general, the sectoral coalitions of the NGOs have more possibilities to convince actors instead of individual NGOs. Sarkkula sees special possibility for NGOs at the large fishing sector supporting food security and subsistence –something that does not gain much support at the ministerial level.

NGO Forum and Cooperation Committee for Cambodia (CCC) with their about 60 member organizations each seem to be the sole coordinators of the Cambodian NGO sector. NGO Forum coordinates and supports advocacy activities of concern to Cambodians and highlights the impact of development processes and economic, social, and political changes on Cambodians. CCC instead concentrates to produce information on, about, and for NGOs in Cambodia. (ADB 2006b.)

Sokhem (2006) claims that there still is not enough coordination within huge amount of NGOs, and actually no NGO which would really focus on integrated water resource management (IWRM). Sokhem and Sunada (2006:406), find it important to formally recognize and facilitate the role of the NGOs, as they offer an important foundation for an improved check and balance. Hughes (2006a:77) mentions that since 2002, government tolerance for civil society activism to promote the voice of the poor has declined.

7.2.4. Local Communities

Local level is important in water management as water is mostly used at the local scale. Village level is characterized by the weak educational base and the general biases of the population (see FIGURE 4.6.). Local people spent most of their time for gaining subsistence and they may not have resources and interest to concentrate on issues related to society in general (Selin 2006). According to Selin, in case the locals are aware of their rights, they have rather good possibilities to appeal to authorities. But Samrithy (2006) finds it a great problem that the locals are weakly aware of their rights or the responsibilities of the government. Another main impediment at the village level is the weak self-help mechanism. According to Sokhem (2006), in Cambodia, there is lack of willingness to have follow-up in spite of 'loving to discuss, agree and disagree'.



FIGURE 7.2. The local level has many new forms of cooperation. Local politics is also often discussed on the side of other everyday activities (Ang Sang Sak).

As there are 4252 villages around Tonle Sap alone, (Sokhem & Sunada 2006:401), it is dangerous to generalize too much their situation. The case studies of Öjendal show that history, local context, local managing style and the interests and actions of the most significant stakeholders are the factors that define what kind of features of management would be preferable in each village (Öjendal 2000:231). Also within the villages, the status of the people might vary according to their ownership of land or other resources, affecting thus directly for example irrigation.

In addition to the NGOs crafted from outside, locally based development-oriented organizations (like water user associations) and rights-based organizations (like fishing and forestry committees) are now proliferating (Öjendal & Sedara 2006:520). The intention of the community management is to create common rules and social pressure between the members for using resources in a sustainable way. Their main problem is the lack of law implementation: these communities have no means to control the illegal fishing and logging (Provincial officer 2006; Sokhem & Sunada 2006:412).

There are also Village Development Committees (VDCs), a pattern which spread during the mid-1990s, particularly within the CAREERE/Seila project. (Öjendal & Sedara 2006:523). The members of the committees are chosen from the villagers by election which Seila programme has been supporting (e.g. Keskinen et. al. 2002a; 2002b). They give a stronger voice for the villagers compared to the traditional decision-making power of the village chief alone.

For the local people securing their livelihood and subsistence is the most important goal. Within the decentralization and election practice, local authorities have also partially understood their agency in the local communities instead of only bringing messages top-down. NGOs have had a central role in this development. However, at the moment, lot of creativity and experiences are needed in order to enhance the communication and the awareness of the responsibilities and rights between the actors.

The future generations—important stakeholders from the point of view of sustainable development, seem to have little weight in general. Short-term interests (e.g. the next rice yield or elections) were mentioned by the interviewees to be the most important for many actors.

7.3. Relations of Water Management in Cambodia

7.3.1. Cooperation and Conflicts in Cambodia

TABLE 7.2. The different uses of water and their relations in the Mekong Region (see chapter 4).

Water uses	Main interests	Impact on water management	Conflicting interests with
agriculture	regular and adequate rainfalls and flooding, irrigation (often main livelihood)	built structures affect fishing, fertilizers and pesticides affect water quality, land use changes	large-scale structures and forest cuts, fishing
fishing	diversified and abundant fish species (additional livelihood)	some fishing tools destroy flooded forests and increase sedimentation	victim in relation to others
forestry	wood for trade and energy of the households, nature products from forests	forestry cuts increase erosion, decrease rainfall and habitats (fishes and flooded forests)	agriculture and fishing
navigation	tourism and trade	pollution, waves increase erosion and frighten fishes away	agriculture and fishing
hydropower	energy	changes water level and the share of sediment, built structures affect fishing, flood control	agriculture and fishing
industry	water	pollution	agriculture and fishing
tourism	incomes	need for conservation, increases navigation	local culture

In general, the relations of the actors strongly follow their interests on water use. It seems that the fishing and agriculture – the main livelihoods of the Cambodians – are the most vulnerable water uses in Cambodia (see TABLE 7.2.). Large-scale technical changes have the most unforeseeable results in total water flow but even small changes can locally affect the water regime.

Below, this chapter first discusses the separate regional levels (introduced in chapters 3 and 7.1.) through the power relations of interest groups (TABLES 7.3. – 7.6.). Then the chapter reviews the possibilities for cooperation and conflicts of the levels - mutually as well as mirrored to central state level (see chapter 7.2.). The analysis of the overall strengths and weaknesses as well as the emphasis of the hierarchy of the actors are situated in the next chapter.

7.3.2. Actors of the International Level

The importance of the international actors is altogether huge for Cambodia. Capacity for funding though seems to be significant factor in their relative power.

There is a clear conflict between ADB and MRC, as they both want to direct the development of the Mekong Region by rather different means. This conflict is reinforced by the inconsistent attitude of the supporters of these agencies towards this problematic relation. The goals of the different donor agencies and countries in Cambodia are relatively contradictory as a whole. In addition, foreign companies can invest contrary to all the plans of the international organizations.

ASEAN, World Bank, ADB, WTO and many donor countries have strongly shared interests in terms of economical cooperation and growth. They should cooperate more with the private sector, but also with MRC, UN and INGOs who highlight more the ecological and social sustainability. The example and financial support of the INGOs is important for the local NGOs.

Altogether is required a stronger agency of Cambodia in NMCs, external projects and simultaneous control and support for the foreign investors. Cambodia should also defend its traditional livelihoods as many actions of the international agencies to accelerate economical growth might be conflicting with the traditional livelihoods and needs of the local communities. The personal contacts between the Cambodian ministries and international funding agencies and companies should be made more visible.

TABLE 7.3. Relations of the international agencies (see chapter 3).

Actors of the international level	Interests (original role)	Resources
Association of Southeast Asian Nations	economical cooperation and stability, to accelerate economical growth, social progress, free-trade zone in the future (harmonization of policies and mechanisms, capacity building)	+ attractive aims for investors - lack of social, economical and political similarity and differences in size
Mekong River Commission	environmental sustainability (IWRM), conflict prevention between the countries, poverty reduction, economical growth (‘software side’, to develop rules, policy and basin-wide planning)	+ the agreement as a tool - dependent on external funding - large and ambitious - call for more weight - centralized - lacks China and Myanmar
Asian Development Bank	the freer flow of goods and people, economical cooperation and growth (‘hardware side’, to finance, provide technical and advisory support and infrastructure)	+ funds + China and Myanmar members
United Nations	MDGs, human rights, international peace and security, solved international economical, social, cultural and humanitarian problems (to provide technical assistance and other forms of practical help, to collect statistics)	+ funds + human resources + world-wide operational field + guidelines through information
World Bank	economical growth, reduced poverty and improved living conditions, MDGs (loans, credit, grants, research)	+ funds + human resources + world-wide operational field + guidelines through information - centralized
International donor countries	varying, reform of governance, national economical growth (funding - especially budget support, technical and human resource support)	+ funds - lack of coordination - conflicting interests
International non-governmental organizations	varying, development, natural resource management and human rights (funding, advocacy)	+ funds + bottom-up
Foreign investors	economical gain (infrastructure, tourism and natural resources)	+ funds - suffer from weak infrastructure and from economical instability

7.3.3. Riparian Countries of the Mekong River

Between the riparian countries, there is division between the less dependent upstream countries and more vulnerable downstream countries. This situation on one hand long way determines the interest and conflicts between the actors, but on the other hand has been also the base of cooperation.

All the countries of the Mekong Region (China and Myanmar included) should take responsibility of maintaining the conditions of the river as it is a significant tool for peaceful relations and economical competitiveness of the region. Mekong River Commission should get a stronger role related to the individual countries. Geographical dependency, historical relations as well as new trade and investment networks may create new kind of interests and cooperation between the riparian countries of the Mekong River.

TABLE 7.4. Relations of the riparian countries of the Mekong River (see chapter 3).

Riparian	China	Myanmar	Laos	Thailand	Cambodia	Vietnam
Political and economical importance of the country	strong	relatively weak	weak	rather strong	weak	rather strong
Location	furthest upstream	upstream	middlestream	middlestream	downstream	furthest downstream
Importance of the basin area for the country [*]	share of the Basin rather important	share of the Basin minor importance	share of the Basin 100 %, extremely important	share of the Basin 35%, however important	share of the basin 85 %, extremely important	share of the basin 25 %, however important
and for others	extremely important	minor importance	important	important for the downstream	minor importance (except maybe for Vietnam)	minor importance (except for Cambodia)
Interests	electricity ----- hydropower	to break international isolation	subsistence farming and fishing, relations with the two neighbours ----- mainly small-scale irrigation, conservation, (tourism and livelihoods), some hydropower	industrialization, shift to the "high" end-products [*] in agriculture ----- mainly large-scale irrigation, hydropower	increase of agricultural production and food security, fishing, rural development ----- mainly small-scale irrigation, conservation (tourism and ecological system), flood control and some hydropower	industrialization, electricity ----- irrigation, hydropower, flood control, conservation (delta)
Interest in Mekong cooperation	weak, but growing	weak, but growing	strong	weak	strong	strong

^{*} Proportions by Öjendal (2000:129-141)

7.3.4. Actors of the National Level

The relations of the local NGOs are partially weakened because of the competition on funding. NGOs have also some disputes with the government. NGOs might have to support local communities from the activities of the international agencies. Local NGOs would probably require more cooperation with government, and coordination and collaborative activities between other NGOs are needed to make them more

credible and effective. Private sector and international actors are needed to fund the activities of the NGOs. In addition to local level actors, research sector should cooperate with NGOs.

Private and public sector are competing as employers. Private sector requires more support and control by the government for both, national activities and for competition against foreign competitors. On the other hand, cooperation between private and public sectors is already strong because of the personal contacts and (sometimes illegal) business activities of the authorities. This relation might be also a drag out e.g. increased tax collection. In budget and agenda, research and educational sector are competing with e.g. military funds.

Media is needed more to support educational sector in form of educational programs for weakly educated people. Research and education in Cambodia can exploit the authority of Buddhist monks and aged people. Media, research and education are fields that can strongly benefit from international capacity building and cooperation.

TABLE 7.5. Relations of nationally working actors (see chapter 7.2).

National	Interests (original role)	Resources
Local NGOs	varying, development and well-being at the local level, to gain political relations and publicity in order to influence (to support village level financially, collect and share information, advocate, to create connection between the state and the society)	+ favour of village level actors + international funding - or weak financial resources - small - possibly too numerous - weak coordination - weak legitimacy by the state
Private sector	economical gain, informal activities dominate (to provide services and funding)	+ freedom - difficulties to adjust to current circumstances - offers weak working conditions
Media	business incentives (to provide information)	+ relative freedom - much of the audience illiterate
Research and education sector	varying, development and increased awareness (to increase knowledge, produce human resources for the society, create justification for the work of NGOs)	+ success - demand exceeds supply - unofficial fees - university programs sub-standard - programmes have little diversity

7.3.5. Actors of the Local Level

At the local level, the interests of the local authorities and the villagers often collide. However, the decentralization as well as the help of the NGOs seems to give hope to more cooperation. Related to livelihoods, the fishing lot or forest concessions owners and the villagers have tense relations, and community fisheries have problems related to illegal fishing, agricultural and hydropower structures. At the village level, the conflicts are often related to land ownership and the access for water.

Local administration is officially connected to the central state level, although the connection weakens as approached to the village level. The willingness of the local authorities to cooperate with other local levels and NGOs varies. The decentralization has given more responsibilities as well as rights to local level in general. This can be estimated to change the attitude of the local authorities – and their legitimacy. Still, the NGOs are important support for local people in case the local governance fails to work for the benefit of its region. Commune Councils require more responsibilities and legitimacy from the sectoral ministries and the central administration should have more knowledge about the everyday life of the grassroots level.

TABLE 7.6. Relations of the local level actors (see chapter 7.2.).

Local level actors	Interests (original role)	Resources
Local authorities	same as national level but more in local context and more concrete tasks (implementation of the decisions of the central state level, contacts to locals)	+ armed forces + networks - few resources compared to central state level (government appointments)
Community councils	local decentralized decision-making power e.g. in natural resource management (to draft and promulgate laws, collect taxes, managem certain natural resources, provide security, support village democracy)	+ wide-ranging legal mandate - instructions yet to be issued - role and responsibilities still unclear (chosen by vote of the locals)
User communities (fishing, forestry, irrigation)	increased income and resource conservation (to secure the sufficiency and even sharing of the natural resources)	+ possibly increased wealth along cooperation - weak law implementation (formed of members)
Villagers	socio-economic conditions, security, culture, political parties and village chiefs dominate (to use water and gain subsistence by farming, fishing, forests priducts, labour, etc.)	+ importance as actual water users - weak human resources - weak social cohesion and self-help mechanism - extremely limited financial resources and technical capacity

The user's communities would gain from better relations to military and police, compared to current situation when military and police abuse their status and user's communities are short of professional guarding on their areas. The user's communities might require better connections to private sector in order to ease the sell of local products and services.

There already exist cooperation between the village level and NGOs – actually the NGOs largely take charge of the voice of the local people. The local people in general are gaining awareness on their possibilities in natural resource management through NGOs and decentralization practices. There exist encouraging experiences on cooperation between village level actors and research. This relation should be strengthened also from the point of view of weak level of education and self-help mechanism.

7.3.6. General experience

The main difference between the political weights of the water uses is their funding base. Investments for navigation, hydropower projects, industry and tourism are readily funded from abroad, and large-scale fishing and forestry are also related to other businesses. Subsistence farming and fishing in rural areas instead mostly rely on annual natural conditions and the capacities of the villagers.

Another factor which generates conflicts is the lack of trust between the actors between all the levels. This is largely due to the historical events and would require more good experiences and step by step developing of the closer relations.

Actually the main challenge of the actors at the national level –as well as at the international— is to be able to cooperate. Between the actors there are needed feedback mechanisms, which of the elections and advocating NGOs are good examples. But before any feedback can be given, the responsibilities and the rights of the actors should be more clearly defined. This might require support from international agencies, especially in form of capacity building, in order to fill up the past and present gaps of the educational sector.

8. CONCLUSIONS

Water and other related natural resources are essential elements in the interests of every level actors of the Mekong Region as they are the base of the macro- and microeconomics as well as human rights. However, the water management in Cambodia seems to be ecologically unsustainable as there is a growing competition of the resources and the decision-making is characterized by economical and personal interests. These features related to the interest show that water management in Cambodia is planned for the elite rather than the population as a whole. The strengths and weaknesses of the water management in Cambodia are shown in TABLE 8.1.

Currently, according to the study, it seems that the most needed resources at the central state level are intangible. They concern effective management of public expenditures, coordination, transparency and trust. At the village level instead, the tangible resources (fulfilling the basic needs) are primarily important. In practice, this can be best done by sustainable conditions for livelihoods and education. The local levels between (local decision-makers, NGOs and private sector) mainly require legislation and legitimacy from the central state level to support their role in decision-making.

Conflicts in the Mekong Region level water management are characterized by the location and ecological water regime of each country, as the cooperation in the Mekong Region is instead founded more on economical networks. At the international level the agencies with most funding resources seem to be the most powerful. Research and 'soft means' instead, seem to stay behind the economical and technical which are better visible in the short span. In general, the role of the international funding is ambiguous: it is needed, but at the same time it easily distorts the role of the Cambodian agency. The international actors should therefore take more responsibility and support more the ownership of the local actors.

Cambodian state levels are characterized on one hand by a centralized and rigid approach, and on the other hand by the complicated networks of decision-making, strongly related to personal contacts. At the central state level, the conflicts and weak cooperation are mainly caused by different interests of the ministeries and political parties – the status of CNMC describes this well. The inconsistent interests and policies of the central state make it difficult for Cambodia to defend itself within

international arenas related to the Mekong cooperation or to the economical affairs as well.

At the national level, weak legislation impedes clear division of responsibilities and rights. In addition, the interests of the government and local people collide and the mutual trust is low. As a whole, the weak private, social and research sectors and certain significantly strong ministries and political parties distort the configuration for national water management (see the emphasis of the power hierarchy, FIGURE 8.1.). At the local level there is a growing competition on subsistence, which has already degraded environment but also created organized user communities. At all the regional levels, horizontal cooperation and coordination seem to be minimal and instead the vertical relations dominate. In general, the information flows poorly between all the levels.

In Cambodian water management, the first step would be creating common interests and therefore willingness to direction the actions more fluently. Second, in Cambodian planning system, the capacity of the individual officials to develop the process would be less limited if the hidden personal networks and the cycle of corruptive practices were not so strong. Finally, the system is dependent on the individuals' awareness,

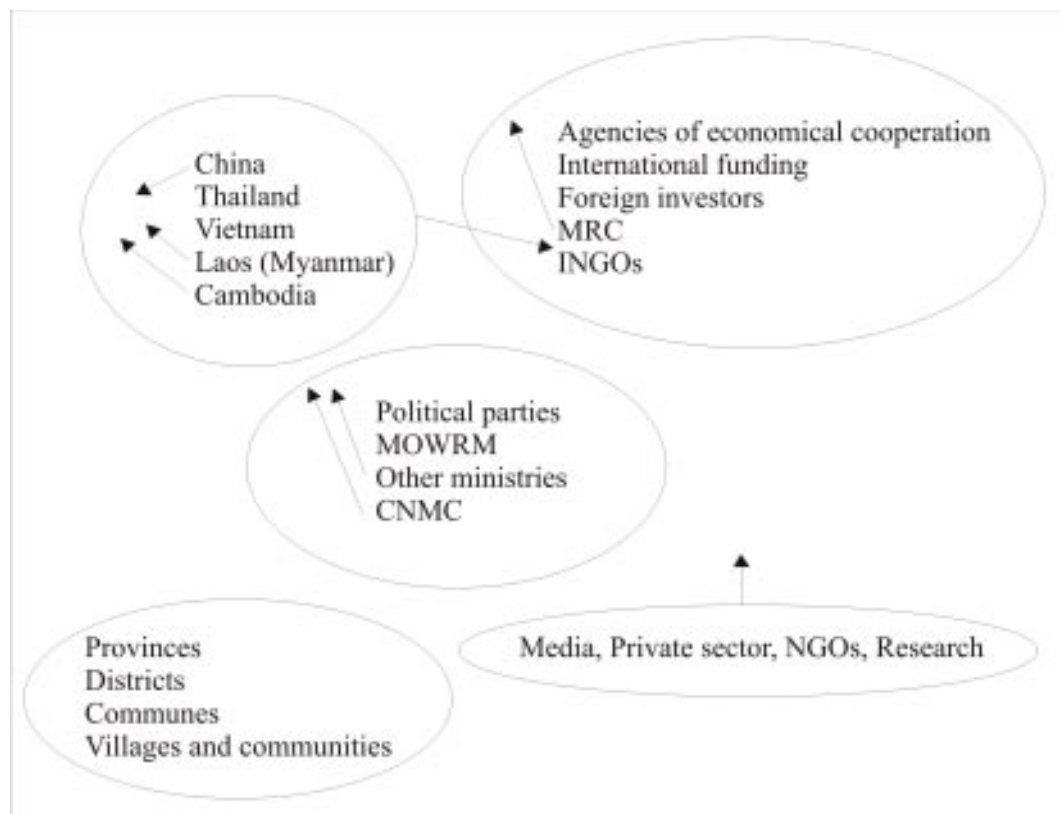


FIGURE 8.1. Emphasis of the power hierarchy of the water management in Cambodia. The arrows show the need for less or more voice in water management.

well-being and resources – something that the true participation of the citizens requires, too. The NGOs have an important role to support the last-mentioned. As a whole, the actions would be easier to coordinate in long-term, if the national level land use plan was to be completed.

In general, the results show that taking account the resources and power relations of the actors - as e.g. Pfeffer and Flyvberg suggest - brings out features that can reflect the motivation of actors in the water management in Cambodia. As the results of the study related to resource deficits and powerful actors seem to mesh well with many earlier international studies, the connection of control and foreseeing the future circumstances and the Cambodian water management is probably still a more knotty question, at least from the perspective of the international development cooperation.

TABLE 8.1. SWOT-analysis of the national level and water management in Cambodia. Current situation and future needs.

Strenghts	Possibilities
<ul style="list-style-type: none"> - relative freedom - decentralization efforts - active civil society <p>Central state</p> <ul style="list-style-type: none"> - formal control of the natural resources - formal control of the other organizations 	<ul style="list-style-type: none"> - decentralization policies - cooperation with NGOs - lot of young, 'new generation' - international opening and foreign examples - international support - support for and from the private sector - increased awareness and skills - increased common sense of responsibility
Weaknesses	Threats
<ul style="list-style-type: none"> - lack of coordination - lack of human capacity - weak status of the local level decision-making bodies - private-public sector bias - weak research and social sector, basic infrastructure - low trust in the society - short-term interests dominating - poverty of the population <p>Central state:</p> <ul style="list-style-type: none"> - internal conflicts within the government and CNMC - vested interests - ineffective management of public expenditures, low salaries - lack of transparency and mechanisms for feedback - patronage politics, corruption - weak legitimacy - centralized and rigid system 	<ul style="list-style-type: none"> - victim in the international competition - dependency on international assistance - interests of the elite dominating (no change to more transparent) - uneven distribution of well-being - weak education and awareness of the society - ecological problems - society discontent with government - local conflicts on natural resources

However, as this study has a rather broad focus, it is indicative of the directions of the water management in Cambodia. Instead, it may not give comprehensive picture of the individual actors. Therefore, to concentrate on separate national or international levels, on water use sectors or regions can be seen as interesting research theme for further studies. For example, by the help of the tools of Pfeffer (1981:38), individual decision-making cases can also be focused on. As said earlier, the basic research in Cambodia would require coordinated support in general. Even more generally, participatory practices internationally in planning are still in its infancy and require attention.

9. FUTURE PROSPECTS

ASEAN and other international breezes are going to affect the Cambodian politics which seems to be sensitive for external influences. In order to be able to compete against too influential international interference, the basic functions of economy and state administration should be got into a more stable level. The ‘new generation’ that is more educated than the earlier generation, gives hope for the changes in administration. In addition, the international donor community seems to be interested in Cambodia and Mekong Region.

It is important to understand that even maintaining current circumstances for livelihoods and well-being - population growth, increased amount of stakeholders and different rules for competition - will require some kind of acclimatization to changing situation. Decentralization and the practices of representative democracy have already brought additional actors and new rules, and increased public discussion on rights and responsibilities can further build up the more aware society. Still, the networks of the powerful decision-makers are strong.

The greatest threat of the Cambodian society is probably the increasing poverty of the population as well as ecological problems. This can be cemented by maintaining the weak educational level and awareness of the local communities. Deterioration of the local circumstances can lead to discontent with government or to local conflicts on natural resources. More transparent activities (e.g. spoken and popular information instead of written and too formal), NGOs continuing their work as mediators between the state and the citizens as well as small-scale innovations and collaborative events between all the levels, can help to avoid the worsening of the situation.

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ACKNOWLEDGEMENTS

This Master's thesis was done between September 2005 and January 2007.

First of all, a special thanks to the WUP-FIN project team at TKK, especially to Marko Keskinen, Ulla Heinonen and Olli Varis of answering enthusiastically to my countless questions and of helping to find the interesting contacts.

Thank you also to Matti Nummelin from the Ministry for Foreign Affairs of Finland as well as to Ritva Kivikkokangas-Sandgren and Veli-Pekka Tynkkynen from our Department of Geography, who all gave valuable tips and motivation for the formulation of the research theme. The scholarship of Nordic Institute of Asian Studies (NIAS) to familiarize with the library in Copenhagen, was also a great pleasure. In addition, thank you to my interviewees for interesting discussions.

I would also like to express my gratitude of the technical help, to Suvidhya Hang of the Khmer translation as well as to Eila, Sanna and Markus of the proofreading, not to forget the IT-services in Paloheinä. In the end, warm hug to my family and friends for the support and for the nice moments between the daily grind.

I APPENDIX

Compilation of the interview questions

To start with:

Your name and occupation

Your work, what does it include?

There are three following themes, in which of these You are the most experienced?

1. Water management and natural resources in development countries
2. Circumstances in Cambodia, related to natural resource management
3. Finnish development cooperation

1. Water management and natural resources in development countries

- From which regions do You have your experience in water management?
- Special features of water?
- The most important uses of water and the clearest conflicts between the water users? Possibilities for cooperation?
- The most important interest groups related to water management?
- The role of the government? What about the other actors?

2. Circumstances in Cambodia

- Is Your work somehow related to ADB and MRC? Connections to other donors or organizations?
- How is water management done in practice? In the office/ local areas?
- Are water management actions planned somehow? How? By whom? Examples?
- Information sharing between the actors of water management?
- Status of the government of Cambodia on local/ international levels?
- The most critical resources required at the moment in water management? Why are they on a critical level? What could be done?
- Changes in water management/institutional resources in Cambodia during last

5 years/since the early 90s?

- Impact of the Seila programme in water management?

3. Finnish development cooperation

- Basic principles of the Finnish development cooperation?
- The latest changes in the Finnish development cooperation? What has changed after the early 90s?
- Status and possibilities of Finland in the international development cooperation community? Cooperation with other donors?
- Focus of the Finnish support (financial/staff/others) (social/environmental/economical)?
- How are the partner countries chosen?
- If Cambodia was chosen as a partner country, the best way/scale/channel to support Cambodia in water management?
- How much is the Ministry for Foreign Affairs of Finnish getting information of the local conditions in the field?
- Where would the Ministry for Foreign Affairs of Finnish need more resources?
- Do You have experiences of democratization in development countries?

Additional questions for NGOs

- Role of the NGOs in today's Cambodia?
- The latest changes in the role of NGOs?
- Expectations for the future of the NGOs / civil society?
- Connections to other actors: for example water users/donors/government?
- Conflicts and cooperation between different NGOs and sectors?