



**LUNDS**  
UNIVERSITET

Lund University Master of Science in  
International Development and Management  
May 2019



# Participation in community protected area management

*Lessons from Phnom Kulen National Park, Cambodia*

Katherine Koerper  
Supervisor: Tobias Axelsson

# Abstract

Community-based natural resources management (CBNRM) is often promoted a way to address natural resources challenges while empowering communities and improving livelihoods. However, empirical evidence has shown that CBNRM does not always entail inclusive community engagement or result in the equitable distribution of costs and benefits. Women, in particular, are often excluded from participating in or benefiting from CBNRM. Drawing from these empirical insights, this thesis utilizes a qualitative case study approach to analyze the underlying factors that influence participation in community protected area management, a form of CBNRM, in Phnom Kulen National Park, Cambodia. Through an analysis of 19 semi-structured interviews with community members living in and near community protected areas, supplemented by four expert interviews, the findings reveal that norms, low education level, and cognitive schema, prevent women in particular from participating in community-based management. However, poverty and the limited remaining natural resources in the area present a barrier for everyone to participate and benefit from CBNRM. This ultimately limits opportunities for CBNRM to serve as a vehicle for community empowerment in Phnom Kulen National Park.

**Keywords:** community-based natural resources management, community protected areas, natural resources management, collective action, common pool resources governance, participation, gender, equity, empowerment

**Wordcount:** 14,968

**Title page image:** Phnom Kulen National Park forest canopy (UNDP Cambodia/Ratha Soy)

## Acknowledgements

This thesis would not have been possible without networks of support in Cambodia, Sweden, and the United States. First and foremost, I would like to thank the communities I visited in Phnom Kulen for taking the time to speak with me, a stranger. You enlightened me about the challenges many people face trying to protect natural resources, and I am inspired by your efforts. I would also like to thank my colleagues at UNDP Cambodia for equipping me with the knowledge and tools to venture to Phnom Kulen and conduct this research. I am especially appreciative of the mentorship I received from my supervisor Moeko, and my colleague, Sony, at the beginning stages of my research.

A special note of gratitude goes to my academic thesis supervisor, Tobias Axelsson, who helped guide me through this research process and answered my endless stream of questions, especially during these last few months in Lund. I am truly grateful for my interpreters, Sakada and Ratha, for their patience and humor during what was both an enriching and challenging experience. I could not have done this without you both. Thank you to my friends Anika and Sakshi in Cambodia, as well as classmates in Sweden, for continuously providing moral support throughout this process.

Lastly, I would like to thank my partner Oscar and my family in California for always supporting me from afar.

# Table of Contents

Abstract	1
Acknowledgements	2
Table of Contents	3
Acronyms	5
List of figures	5
1. Introduction	6
1.1 Research questions and aim	8
1.2 Thesis structure	8
2. Literature review	10
2.1 Natural resources management institutions	10
2.2 Exclusions and inequities in CBNRM	12
2.3 CBNRM in Cambodia	13
3. Conceptual and analytical frameworks	16
3.1 Institutions for collective action	16
3.1.1 Gender in collective action	16
3.2 Participation: who, why, and how?	18
3.2.1 Agency	18
3.2.2 Resources	19
3.2.3 Rules	19
3.2.4 Types of participation	20
3.2.5 Instrumental vs. intrinsic motivations	21
3.2.6 Equity and empowerment	22
3.3 Analytical framework	23
4. Methodological discussion	25
4.1 Research design	25
4.2 The case study: Phnom Kulen National Park	26
4.3 Data collection methods	28
4.3.1 Sampling	29
4.3.2 Transcription and coding	30
4.4 Limitations, positionality, and ethical reflections	31
5. Analysis and discussion	33
5.1 Rules, agency, and participation	33

5.1.1 Formal rules	33
5.1.2 Informal rules	35
5.2 Resources, agency, and participation	41
5.2.1 Human and social resources	41
5.2.2 Natural resources	46
5.2.3 Economic resources	49
5.3 Summary of participation	52
5.4 Outcomes	53
5.4.1 Equity	53
5.4.2 Empowerment	54
6. Concluding remarks	56
7. References	58
Appendix I: List of interview respondents	65
Appendix II: Agreement of informed consent	67
Appendix III: Interview guides	68
Appendix IV: Map of Phnom Kulen National Park	74

## Acronyms

CBNRM	Community-based natural resources management
CF	Community forest
CFi	Community fishery
CPA	Community protected area
CPR	Common pool resources
HoH	Head of household
MoE	Ministry of Environment, The Royal Government of Cambodia
NIS	National Institute of Statistics, The Royal Government of Cambodia
NTFP	Non-timber forest products
NRM	Natural resources management
PA	Protected area
PKNP	Phnom Kulen National Park
RGC	The Royal Government of Cambodia

## List of figures

- Figure 1: Situating CBNRM within the literature
- Figure 2: Typology of participation
- Figure 3: Analytical framework
- Figure 4: Map of Phnom Kulen National Park

# 1. Introduction

Home to 80% of terrestrial biodiversity on earth and responsible for sequestering up to 30% of carbon dioxide emissions annually, forests offer many socio-economic and ecological benefits yet are disappearing at an alarming pace worldwide (WWF, 2018; NASA 2014). Deforestation is particularly acute in Cambodia, where forest cover has declined by more than 25% since 1965 (Ministry of Environment [MoE], 2018). Although Cambodia was one of the first countries in Southeast Asia to establish protected areas<sup>1</sup>, conflict and instability<sup>2</sup> plagued the country throughout the 1970s and 1980s, effectively rendering them obsolete (Gaughan et al., 2009; Milne & Mahanty, 2015).

In 1993, upon ushering in a new era of peace in which conflict de-escalated, the Royal Government of Cambodia (RGC) began to strengthen environmental protections with the establishment of 23 protected areas (San, 2006). By 2016, 40% of the country was under protected area management, one of the highest percentages in the world (MoE, 2017). However, limited institutional capacities and inadequate funding have led to weak enforcement of these protections (San, 2006). Furthermore, the proliferation of economic land concessions has led to extensive land-use change for agricultural production, oftentimes encroaching on protected areas (Milne & Mahanty, 2015). As a result, today Cambodia has one of the fastest deforestation rates in the world (Global Forest Watch, 2019).

Consequently, community-based natural resources management (CBNRM) has garnered support in Cambodia as a way to improve biodiversity conservation by empowering communities to sustainably manage and protect natural resources. With nearly 80% of the country's population residing in rural areas, many of whom rely on timber and non-timber forest products (NTFP) for their livelihoods, community engagement is increasingly

---

<sup>1</sup> “A protected area is a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values” (Dudley & Stolton, 2008).

<sup>2</sup> Between 1975 and 1979 more than 1.7 million people, nearly 25% of Cambodia's population at the time, died in a genocide perpetrated by the Khmer Rouge regime (Kiernan, 2003). Upon being deposed in 1979, the Khmer Rouge retreated to sparsely inhabited forested areas along the Thai border, where they became active in the illegal timber trade and funded guerilla operations throughout the 1980s and 1990s (Milne & Mahanty, 2015).

considered crucial to successfully conserve the country's remaining forests (National Institute of Statistics [NIS], 2017).

CBNRM is based on theories of common pool resources (CPR) governance and collective action, which argue that under certain conditions, communities can govern CPR more sustainably than public or private institutions (Ostrom, 1990). According to Ostrom (*ibid*, p. 30), CPR are resources that are “sufficiently large enough as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from their use”. While they can encompass natural resources both on land and in water, this thesis focuses specifically on forests. By harnessing the voluntary collective efforts of a community to sustainably manage natural resources, community-based natural resources management can be considered a type of collective action (Pandolfelli et al., p. 1).

Although community-based approaches to natural resources management were first promoted in Cambodia in 1999, it was not until 2008 that the government approved a full legal framework defining how such institutions should be managed (San, 2006; MoE, 2008). The framework laid out an extensive legal process whereby communities could enter into agreements with the RGC to sustainably manage land in exchange for the rights to access and use such land (MoE, 2008). While today there are three types of community-based institutions for managing natural resources in Cambodia, including community forests (CF), community fisheries (CFi), and community protected areas (CPA), this thesis focuses on the latter. However, due to the limited existing research available on them, this thesis will utilize the term ‘community-based natural resources management’ in its discussion of the concept and literature more broadly.

Since the emergence of CBNRM in international development and conservation dialogues, it has been touted as a way to resolve natural resources management challenges and possibly even “restore harmony to environment-society relations” (Leach et al., 1999, p. 226). However, although it offers a hopeful narrative of community engagement and empowerment, equitable participation in CBNRM institutions has not always been realized. Research has shown that these community-based institutions can sometimes further



perpetuate local power dynamics and inequalities, excluding women and other marginalized voices from what are supposed to be participatory processes (Agarwal, 2000; Agarwal, 2001; Mahanty et al., 2006; Nathan & Pasgaard 2017; Saito-Jensen et al., 2010; Pasgaard & Chea, 2013). Moreover, such natural resources management schemes do not necessarily provide significant livelihood benefits to local communities, leading to questionable outcomes for biodiversity conservation and poverty alleviation (Dressler et al., 2010).

## 1.1 Research questions and aim

Considering this context, this study aims to generate empirical evidence of how communities engage in community protected area management, a form of CBNRM. Using a case study approach, this study focuses on Phnom Kulen National Park (PKNP), an area that has suffered from rampant deforestation in recent years. Through an analysis of qualitative data collected at the site, the thesis aims to illuminate the underlying factors that influence if and how people participate in community protected area management. Moreover, drawing on empirical evidence of exclusion and inequity in community-based institutions, the study aims to highlight possible gender inequities in participation and benefit-sharing, and subsequent implications for empowerment. These objectives are reflected in the following research questions:

1. What are the challenges and opportunities for men and women to equitably participate in community protected area management?
2. In what ways can participation in community protected area management empower communities?

## 1.2 Thesis structure

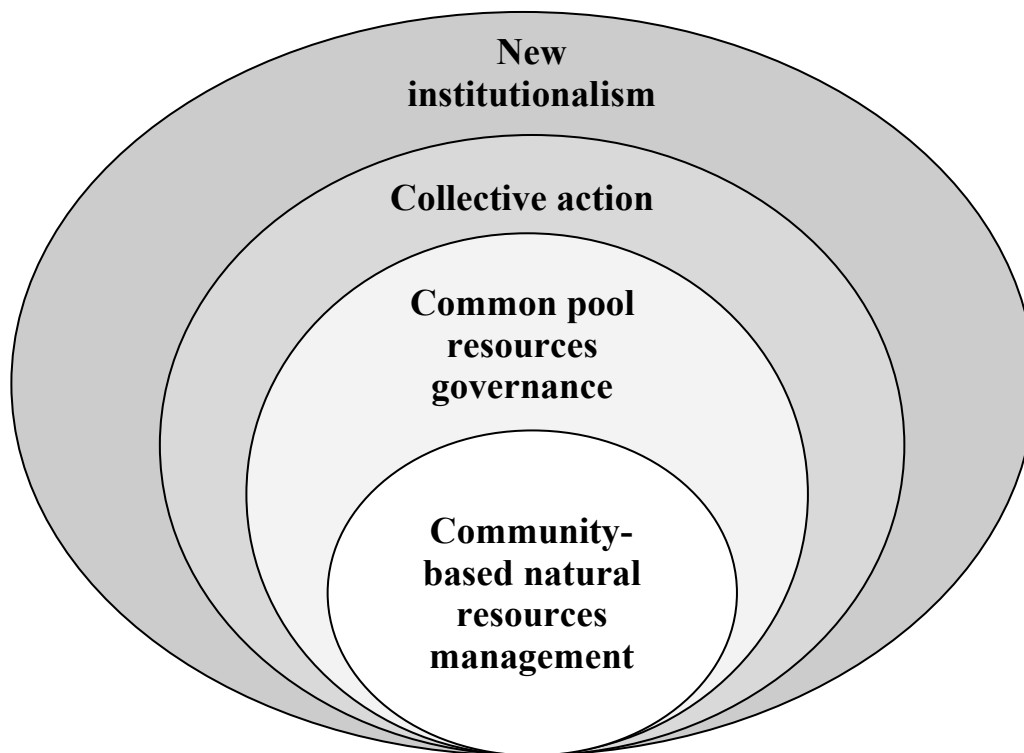
In order to address these questions, literature revealing the origins of community-based natural resources management as an environmental governance mechanism will first be presented. Then, I will draw from experiences of CBNRM institutions in various contexts to illustrate the importance of analyzing the underlying social dynamics of such institutions.

This will be followed by a discussion of the conceptual and analytical frameworks employed in this research. Subsequently, the methodological approach used to collect and analyze data, including contextual information justifying the case study area, will be presented. Reflections on the limitations and ethical considerations of this study will also be discussed. Finally, an analysis of the findings of this study will be presented. The thesis will conclude with a discussion of the implications of these findings and suggestions for further inquiry on the topic.

## 2. Literature review

This chapter begins with a discussion of how community-based approaches to natural resources management arose from theories of new institutionalism, collective action, and common pool resources governance. It then draws from studies in South Asia to illustrate how people engage in CBNRM and what the resulting impacts have been. This is followed by a discussion of how research in Cambodia has explored community engagement in CBNRM, subsequently illustrating the empirical gap this study aims to fill.

### 2.1 Natural resources management institutions



*Figure 1: Situating CBNRM within the literature. Author's own (2019), based on Ostrom (1990).*

Although local communities have been managing the natural resources they rely on for millennia, it was not until the 1990s that community participation was widely promoted as part of an institutional approach to managing common pool resources (Dressler et al., 2010). Until then, the widespread belief held among academics and politicians was that CPR are best

managed by the state or by private institutions (Ostrom, 1990). This idea was informed by past theories of collective action, which argued that collective action will always suffer from 'free-riders', whereby individuals benefit from a group's actions without actively contributing (Olson, 1965). Similarly, Hardin's (1968) theory of common pool resources postulated that when left to govern CPR themselves, individuals will always pursue their self-interest, leading to an overuse of resources and the degradation of the environment. These perspectives shared an understanding that environmental destruction is inevitable when the commons are left 'ungoverned'. They subsequently formed the basis of policy prescriptions in the following decades, when centralization and privatization were seen as the only way to manage natural resources (Ostrom, 1990). However, in many countries where institutional capacities were weak, the nationalization of natural resources management backfired, resulting in bribery and corruption (ibid). As participatory approaches to development gained momentum in mainstream development discourse in the 1970s, researchers began to recognize how community control of natural resources could be more ecologically, and socially, sustainable, as part of a 'bottom up' approach to CPR governance, natural resources management (NRM), and conservation (Cornwall, 2008; Mahanty et al., 2006; Ostrom, 1990).

Drawing from years of research on community-led CPR governance, Ostrom (1990) learned why some communities have been successful at sustainably self-governing natural resources, thereby challenging then-mainstream notions of collective action. Her research gave rise to the concept of community-based natural resources management (CBNRM), which entails the devolution of power of natural resources management from the national to local levels (Dressler et al., 2010). In analyzing how self-governing communities manage natural resources, she identified eight principles<sup>3</sup> as necessary for community-based institutions to sustainably govern CPR.

---

<sup>3</sup> Ostrom's (1990) eight principles for sustainable common pool resources governance include clear boundaries and membership, congruent rules, collective choice arenas, monitoring, graduated sanctions, conflict resolution mechanisms, recognized rights to organize, and nested units.

Community-based natural resources management has since grown in popularity as a potential solution to supporting biodiversity conservation while ensuring that communities can sustainably use the natural resources they have historically depended on (Dressler et al., 2010). It challenges previous strains of conservation and NRM, which often sought to protect or utilize land at the expense of communities (Adams et al., 2004). Instead, CBNRM implicates communities as active change agents in the conservation and sustainable use of natural resources based on their local knowledge and expertise (Dressler et al., 2010; Cascio & Beilin, 2010). CBNRM has garnered particular support in the global south, where centralized governments often lack the resources to enforce environmental protections (Dressler et al., 2010).

## 2.2 Exclusions and inequities in CBNRM

Despite its promising rhetoric, one of the key critiques of community-based natural resources management is that it tends to reinforce power dynamics and inequalities since CBNRM institutions are shaped by pre-existing social structures (Pasgaard & Chea, 2013). This results in the exclusion of already-marginalized people from decision-making processes and benefit-sharing (ibid). Agarwal (2001, p. 1623) calls these “participatory exclusions” and argues that they can lead to institutional inefficiencies. Empirical evidence from CBNRM institutions across Nepal, India, and Cambodia have illustrated such exclusions in a phenomenon called ‘elite capture’, whereby community elites dominate decision-making processes and ‘capture’ most of the benefits from the community forest or protected area (Saito-Jensen, et al., 2010; Cascio & Beilin, 2010; Dressler, et al., 2010). While many of these institutions have been considered effective from an ecological conservation perspective, these exclusions and inequities raise questions about their social and economic implications.

Through extensive research on CBNRM in the South Asian context, Agarwal (2000; 2001; 2009; 2010; 2014) adds gender as a critical component to the discussion of exclusion and inequity in community-based institutions. In her analysis of dozens of community forestry (CF) groups in Nepal and India, she found that the participation of men and women in these groups and the costs and benefits they receive, are unequal (Agarwal, 2000; 2001). While

many areas with CF groups have seen improvements in tree density, income, and biodiversity, women's 'virtual absence' from CF decision-making bodies calls into question the groups' participatory nature (Agarwal, 2000). Ignoring women's participation in CBNRM is problematic since women typically have a greater stake in natural resources collection and use than men; it is typically women who are left with the burden of finding alternative resources when traditional ones are no longer viable, either as a consequence of degradation or community decision-making (Agarwal, 2000). It also presents a "missed opportunity", since women have a history of "cooperative functioning within traditional social networks characterized by reciprocity and mutual dependency, especially in the rural communities of developing countries" (Agarwal, 2000, p. 305).

This suggests that inequities are likely to be reproduced in CBNRM unless "broader society is challenged and changed to accept the same expectations and responsibilities that are currently placed on CBNRM processes" (Mahanty, et al., 2006, p. 12). From this section, it is deduced that CBNRM cannot be blindly associated with participatory processes and 'community-based' institutions do not automatically promote equity or inclusion of the most marginalized, such as women. Rather, pre-existing social and power dynamics determine who participates in and benefits from CBNRM.

## 2.3 CBNRM in Cambodia

Community-based approaches to natural resources management in Cambodia, one of the least developed countries in Southeast Asia, is an attractive strategy to combat deforestation while considering the natural resources needs of local communities (United Nations, 2018; San, 2006). However, promoting community-based approaches without fully understanding the underlying social and power dynamics of these communities risks exacerbating inequalities. While some studies of CBNRM in Cambodia have assessed the effectiveness of community forests and community protected areas to reduce deforestation and improve livelihoods, few have looked at the factors that shape engagement in CF and CPA

management. In this section I will discuss the limited body of research on participation in CBNRM in Cambodia.

In a 2013 study of participation in community forestry, Pasgaard and Chea (2013) found that the benefits of community forestry rarely reach the most vulnerable populations due to physical barriers, disability, and lack of information and resources. Meanwhile, deforestation affects the poorest households due to their reliance on forest products due to insecure land tenure (ibid). This creates a 'double inequity' since those who are unable to engage in and benefit from forest protection due to limited resources, are the most affected by deforestation (ibid, p. 330). While acknowledging the importance of access to information as a precondition for participation in CF, Pasgaard and Chea (2013) argue that structural barriers, such as socioeconomic status and gender, may have greater influence in determining participation.

Looking at community engagement in CPA and CF management in the remote Cardamom Mountains of Cambodia, Cascio and Beilin (2010) found there to be a disconnect between the international discourse on CBNRM and local realities, with villagers considering their involvement in PA and CF management a burden rather than an asset. Although initially excited about the prospect of having more control of how the land surrounding their villages could be used, misinformation and misunderstandings caused community members to question their role in CBNRM and grow suspicious of the interests of the government and NGOs (ibid). This study further illustrates how low awareness and understanding of the purpose of the CPAs and CFs can obscure the goals of 'community-led' conservation, ultimately disempowering rather than empowering communities. It also raises questions about whether CBNRM is genuinely about promoting the participation of communities in NRM, or whether it just shifts the burden of conservation onto a small minority, based on "internationally established values" of biodiversity conservation (Cascio & Beilin 2010, p. 347).

Turning towards community fisheries, Resurreccion (2006) sought to explore how social and gender dynamics affect women's inclusion in recently created community fisheries on the Tonle Sap, the largest freshwater lake in Southeast Asia. Rather than releasing women from poverty and ensuring the CFi programme's success, the program's emphasis on women's participation unintentionally added more to their workloads and exposed them to greater subjugation from men (ibid). This research gives sustenance to the argument that an analysis of local dynamics is necessary to understand the needs and interests of women before blindly promoting their participation in community-based institutions.

While efforts have been made to ensure equitable participation in CBNRM in Cambodia, to truly "draw out minority voices in communities and ensure full participation and adequate representation of [their] interests" requires overcoming informal social structures and power dynamics (San, 2006, p. 10). However, limited resources, such as time and energy, combined with low literacy levels, make this challenging (ibid). Ultimately, Mahanty et al. (2006) argue that a stronger legal framework and increased awareness of the rules of governance amongst community members is needed.

This review of literature on participation and benefit-sharing in CBNRM illustrates the inequities that often prevail in CBNRM institutions, both in Cambodia and abroad. Moreover, it challenges the notion of how 'bottom-up' CBNRM can be when communities lack the same awareness and priorities of those in power promoting it. Although some studies have explored the social dynamics behind participation in CBNRM institutions in Cambodia, few studies have been conducted specifically on community protected areas and considered gender dynamics in the analysis of these institutions. Thus, this study aims to provide more empirical evidence of how and why people participate in community protected area management institutions in Cambodia, with a nuanced perspective on the gendered nature of this participation. It then seeks to assess whether this participation can be considered a vehicle for empowerment.



### 3. Conceptual and analytical frameworks

In this chapter I present the conceptual groundings that underpin this study. This includes the concepts of institutions and gender, and understandings of what drives participation in collective action institutions. These are tied together by an analytical framework, which is based on Pandolfelli et al.'s (2007) adaptation of the institutional analysis and development (IAD) framework (Ostrom, 1991; Oakerson, 1992). Drawing from theories on collective action and CPR governance, this framework illustrates how rules, resources, and the culmination of the two -- agency -- influence participation in community-based institutions. Two possible outcomes of participation, equity and empowerment, are subsequently discussed.

#### 3.1 Institutions for collective action

Ostrom (2005, p. 3) defines institutions as “the prescriptions that humans use to organize all forms of repetitive and structured interactions including those within families, neighborhoods, markets, firms, sports leagues, church, private associations, and governments at all scales”. In other words, institutions can be considered the formal or informal mechanisms that govern how people interact in a specific context and for a specific purpose. As discussed in the literature review, CPR theory is based on the belief that institutions can be constructed in a way that inspires people to act cooperatively to achieve a common goal, such as sustainable natural resources management (Cleaver, 2007; Ostrom, 1990). According to Ostrom (1990), an individual’s choice to act cooperatively is affected by the benefits and costs he or she expects, internal norms, and discount rates. This is elaborated further in the IAD framework (Ostrom, 2005).

##### 3.1.1 Gender in collective action

Critics of Ostrom’s (1990) common pool resources governance theory argue that it assumes people have more bargaining power to engage in collective action institutions than they actually do, and that it fails to regard gender as a critical determinant of bargaining power (Cleaver, 2007; Lapniewska, 2016; Agarwal, 2001). Gender, which Gregson et al. (1997, p.

53) describe as a “social construction organized around biological sex”, is “sanctioned and reinforced by a host of cultural, political, and economic institutions, including the household, legal and governance structures, markets, and religion” (Pandolfelli, et al. 2007, p. 5). Although gender shapes norms, responsibilities, livelihoods, and power dynamics, gender is missing from early literature on collective action for the management of CPR (ibid). This is interesting to consider given that CBNRM cases that are largely deemed ‘successful’ from an efficiency perspective, such as those in India in Nepal, are often not considered so from a gender perspective, failing to take into consideration how responsibilities are shared, if at all (Agarwal, 2001). Lapniewska (2016, p. 129) considers this a mistake, arguing that “one of the foundations of the commons, as an alternative program to the private-state dualism, ought to be the principle of equality that includes a gender perspective in theory and practice”.

However, as Pandolfelli et al. (2007, p. 2) note, “institutions themselves are gendered and can either challenge or reinforce existing social roles”. Thus, it is important to remember that community-based institutions “neither automatically harmonize interests within a community nor balance power relations, nor do they change gender stereotypes and the gender-hierarchical division of labor and decision-making” (Wichterich, 2015, p. 90). Deeply embedded norms and biases can exclude groups of people from participating in such institutions or benefiting from them, limiting their ability to fully meet community needs (Pandolfelli, et al., 2007). Thus, building on Ostrom’s work, Agarwal (2001, p. 284) defines three criteria for assessing the success of CPR governance and collective action: to what extent people in the community participate in decision-making, how equitably the benefits and costs are shared amongst the community, and how efficient the institution is at protecting and regenerating the resource. This thesis seeks to explore how the first criterion, participation, influences the second criterion, how costs and benefits are distributed, and if participation can lead to empowerment.

## 3.2 Participation: who, why, and how?

Given that the success of CBNRM as a form of collective action is based on participation, it is important to first clarify how participation is defined, and the potential outcomes of participation. Participation entails the engagement of people in an activity or process. Since the rise of participatory development in the 1970s, participation has become almost a precondition for development interventions (Cornwall, 2008). Cornwall (2008) attempts to bring clarity to the term by outlining several typologies that have emerged over the years, each building upon each other and strengthened by empirical observations. Each level of participation enables participants to exert a different degree of *agency* according to the power dynamics and social structures in the given context. Participation can therefore be considered an inherently political process defined by power and control (Cornwall, 2008; Kabeer, 1999, p. 437; Arnstein, 1969). This thesis utilizes Agarwal's typology for participation in community forestry, which will be elaborated upon prior to the introduction of the analytical framework, to better understand how different degrees of agency and thus, participation, are manifested in community protected area management in PKNP.

### 3.2.1 Agency

Kabeer (1999, p. 438) defines agency as a process through which people have the ability to "define their own life-choices" and "pursue their own goals, even in the face of opposition from others". It entails "challenging power relations and the way that things are commonly done" (Cleaver, 2007, p. 230). Although it can be operationalized as 'decision-making', it also includes "intangible cognitive processes such as reflection and analysis" (Kabeer, 1999, p. 438). Cornwall (2008) argues that when evaluating 'participatory processes', such as CBNRM, one needs to look not only at *how* people participate but at *who* participates and the *agency* they carry. Failure to do so risks co-opting the term to legitimize "already-taken decisions, providing a thin veneer of participation to lend the process moral authority" (Cornwall, 2008, p. 270). This can cause seemingly well-meaning "participatory processes...to deepen the exclusion of particular groups" (Cornwall, 2008, p. 277). Traditionally marginalized people have the highest risk of exclusion from participatory processes, "unless explicit efforts are made to include them" (ibid).

### 3.2.2 Resources

Nevertheless, agency is not an isolated phenomenon. It is determined in part by the asset endowments, or *resources* one has access to (Pandolfelli et al., 2007; Kabeer, 1999; Cleaver, 2007). These can include human resources, social resources, physical resources, financial resources, natural resources, and political resources (Pandolfelli et al., 2007). This builds on Cornwall's argument, that in addition to the context in which agency can be exercised, resources are a determinant of participation. While 'resources' encompasses a broad range of material and immaterial assets, this thesis focuses primarily on what Pandolfelli et al. (2007) define as 'action resources', meaning the resources relevant for increasing the agency of actors in collective action. Agarwal (2001) considers the following resources as influential for women's participation in community forestry: social perceptions of women's abilities to participate, men's entrenched territorial claims over community resources and/or structures, personal endowments and attributes, household endowments and attributes. Combining Pandolfelli et al. (2007)'s definition with Agarwal's (2001), this thesis categorizes these resources as 'human' and 'social' and considers these, as well as natural and economic resources as the 'action resources' that help determine participation in CBNRM.

### 3.2.3 Rules

According to Kabeer (1999), *norms and rules* often determine how resources are accessed and distributed. Rules may be formal and explicit, such as rules of entry entailing who or what is needed to participate (Agarwal, 2001). Rules can also be informal and implicit, and include social norms and "unwritten norms of resource use" (Cleaver, 2007, p. 231). Rules can be endogenous, meaning created within an institution, or exogenous, and created outside of an institution (Pandolfelli et al., 2007). This study defines *rules* as the 'rules of entry' that dictate who can, formally or informally as dictated by norms, engage in CBNRM. Together, rules and 'action resources' determine agency, which influences an individual's ability to participate in collective action (ibid).

### 3.2.4 Types of participation

As discussed in the previous section, participation is influenced by a range of factors, many of which are predicated on one's identity. In this thesis, I argue that the ability of community protected areas to equitably benefit community members depends in part on if, and how, men and women participate in their management.

This thesis draws from Agarwal's (2001) typology of participation to articulate six ways of participation in CBNRM. Certain aspects of the typology have been modified for this thesis. For example, non-participation has been added as the first tier to categorize people who lack awareness of the CBNRM institution and its activities.

<b>Type of participation</b>	<b>Characteristics</b>
<i>Non-participation</i>	No or poor awareness of the group
<i>Nominal</i>	Membership in or awareness of the group
<i>Passive</i>	Informed of but not included in decision-making, attending meetings where decisions are made but not speaking up
<i>Consultative</i>	Being asked to contribute ideas or opinions on specific matters with no guarantee of influencing decisions
<i>Activity-specific</i>	Being asked to participate in or volunteer for specific tasks
<i>Active</i>	Voicing opinions, solicited or not, or taking on other initiatives
<i>Interactive (empowering)</i>	Having voice and influence in the group's decisions

Figure 2: Adapted from Agarwal's (2001, p. 1624) 'typology of participation'.

### 3.2.5 Instrumental vs. intrinsic motivations

Both Cornwall (2008) and Kabeer (1999) bring into question whether participation should be promoted as an instrumental tool to achieve a goal, such as more effective CBNRM institutions, or for its intrinsic value as a potentially 'transformative' process to empower marginalized individuals. Sometimes people are encouraged to participate, not based on the premise of equity, but because they are needed to effectively enforce rules (Pandolfelli et al., 2007). Alternatively, sometimes people are included in marginal decisions for the sake of 'equity', but left out of important ones (Cornwall, 2008). According to Kabeer (1999), it is not just the possibility of exercising choice that matters in participatory processes but the tangible benefits that can be gained from exercising choice. Even if participation itself may be considered an end-goal, providing space for people to participate does not necessarily mean that they will. Enhancing the participation of the most marginalized often requires overcoming deeply entrenched cultural and social norms. Participation should therefore not be confused with having a voice, nor consequentially, influence (Cornwall, 2008, p. 278). Simply counting the number of women participating does little to reveal "gendered norms of articulation and who they privilege or oppress" (Cleaver, 2007, p. 237). Rather, inclusionary and participatory processes need to be sanctioned by the broader institutional structure.

While participatory processes should aim to be inclusive and represent the diversity of actors affected by the process, participation from everyone is not always desirable or needed (Cornwall, 2008). In fact, it can make things cumbersome, leading to everyone losing interest and therefore defeating its purpose. Rather, participatory processes should aim to consider both *depth* and *inclusion*, specifying which kinds of decisions should be participatory, and at what stages, based on the context (Cornwall, 2008; Kabeer, 1999; Pandolfelli et al., 2007).

Another aspect to consider in participatory processes is that unfulfilled promises from outside actors, such as NGOs, risks exposing people to 'participatory fatigue', resulting in their aversion and skepticism in the future (Cornwall, 2008). This is common in 'invited participation', whereby such processes are orchestrated by an external actor (ibid). Rather, participatory processes are most meaningful when communities can set their own agenda

and take ownership of processes themselves, such as the self-organized collective action institutions Ostrom studied (ibid; Ostrom, 1990). Until people can take ownership of these processes, spaces people create based on their shared identity, values, or interests, such as women's self-help groups, can be useful for building confidence, skills, and solidarity among those with less power or influence in society (Cornwall, 2008). However, establishing these spaces can prove difficult for marginalized peoples who lack self-confidence and are thus prone to 'self-exclusion' (ibid).

### 3.2.6 Equity and empowerment

According to Uphoff (1991 as cited in Agarwal, 2001, p. 1624), participation in CBNRM is supposed to "enhance equity, efficiency, empowerment, and environmental sustainability". While this thesis does not seek to address how participation affects the efficiency or environmental sustainability of CBNRM institutions, it seeks to show the links between participation, equity, and empowerment. Equity is closely associated with fairness (Mahanty et al., 2006). Like participation, the concept finds meaning in social contexts, norms, and values (ibid). Equity in CBNRM has many dimensions but is most commonly thought of in political and economic terms, with the former entailing equity in "participation and influence in decision-making", and the latter relating to the distribution of benefits (ibid, p. 6). Equity can be assessed from a myriad of vantage points, including equity within communities, between communities, and relative to the state (ibid). This thesis will primarily look at political equity, and where relevant, economic equity, amongst communities.

Some common indicators of equity include income distribution, social and political inclusion, safety and security, and resilience to economic and environmental shocks (Pandolfelli et al., 2007). Mahanty et al. (2006) argue that the emphasis for CBNRM to reduce inequities, through its participatory nature, makes it a possible instrument for social change. This is based on the idea that if communities improve equity on a local level, improvements in equity may be possible on a broader level, such as between social groups or between communities and the state. However, as Agarwal (2001, p. 1625) notes, "there are limits to what participation alone...can achieve in terms of equity and efficiency given pre-existing

socio-economic inequalities and relations of power”. Nevertheless, marginalized groups, such as women, should be included not just on the basis of equity, but so that they can “help design rules that benefit them too” (Pandolfelli et al., 2007).

It would be remiss to discuss participation, agency, and equity without discussing what can be considered the optimum culmination of all: empowerment. Many promoting CBNRM around the world consider empowerment a complementary goal to environmental sustainability (Dressler et al., 2010). This includes the empowerment of communities to sustainably manage the natural resources they rely on, and the empowerment of marginalized people within those communities, such as women, to gain new avenues for participation in community decision-making. Empowerment can be considered a process by which someone uses or gains access to resources (material or immaterial), which allow them to exercise agency, ultimately resulting in ‘achievements’, or well-being outcomes (Kabeer, 1999). Achievements that may denote empowerment include equal household responsibilities, while failed empowerment, or *disempowerment*, might be signified by gender-based violence (ibid). While there is no magical formula for fostering equity and empowerment, CBNRM is widely considered a starting ground for both (Dressler et al., 2010).

### 3.3 Analytical framework

Based on these conceptual understandings, this thesis utilizes an analytical framework combining elements of Pandolfelli et al.’s (2007) adaptation of Ostrom (1991) and Oakerson’s (1992) institutional analysis and development framework. The framework helps illustrate how rules and resources influence agency, and hence, participation in CBNRM. It aims to show possible outcomes of this participation, such as equitable benefit-sharing or even, empowerment. Of course, participation in community-based institutions and collective action is not a panacea to overcoming structural inequalities. As Oakley (1995, p. 4) states, “centuries of domination and subservience will not disappear overnight just because we have ‘discovered’ the concept of participation”. However, by looking at how rules and



resources affect agency, and in effect, participation, we can begin to understand what tools might be useful to overcome these inequalities.

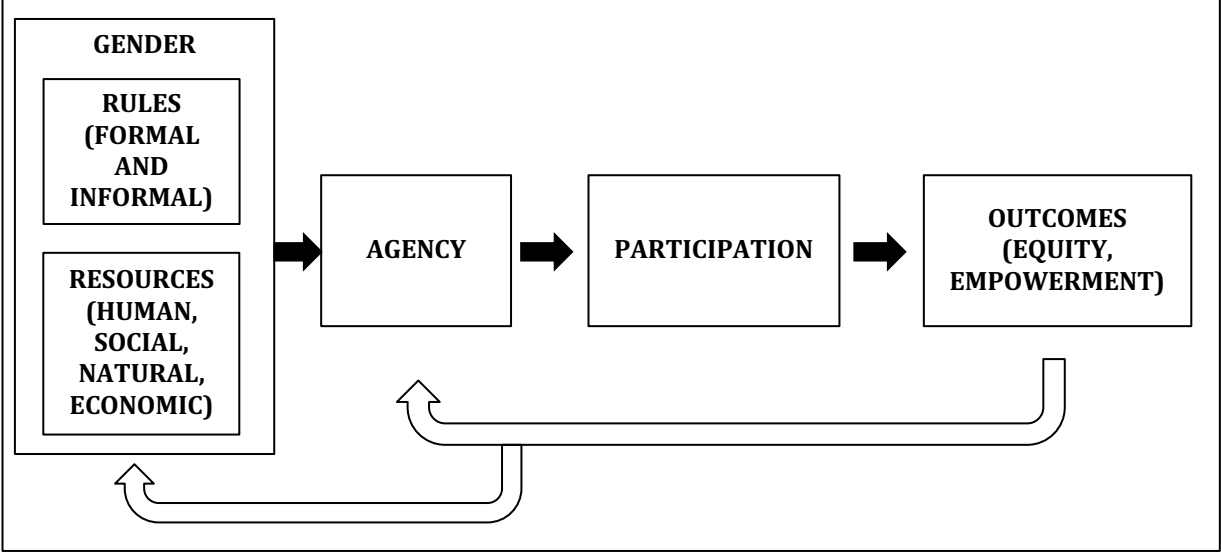


Figure 3: Analytical framework to illustrate participation in CBNRM/collective action. Adapted from Ostrom (2005)

## 4. Methodological discussion

### 4.1 Research design

This study employed qualitative methods in its research design for several reasons. Unlike quantitative methods, qualitative methods are particularly adept at unveiling individual perspectives on a phenomenon and can “empower individuals to share their stories” and enable those in relative places of privilege and power to “hear their voices” (Creswell, 2007, p. 40). In doing so, this helps “minimize the power relations that often exist between a researcher and the participants in a study” (ibid). Qualitative methods are suitable for exploring issues of power and dominance, as this thesis inevitably will do as it explores the motivations behind participation in CBNRM. This research aims to give communities, in all their complexity, a voice in the discussion of community-based natural resources management (Leach, 1999).

A case study has been chosen as the research strategy since it helps generate context-specific knowledge of a ‘bounded system’, an important element given the context-dependent conditions required for CBNRM to thrive (Creswell, 2007). Moreover, it supports the aim of this thesis, which is to contribute empirical evidence of community-based natural resources management rather than expand upon theoretical groundings.

## 4.2 The case study: Phnom Kulen National Park



Figure 4: Phnom Kulen National Park is situated in northwestern Cambodia, near the Angkor Wat World Heritage Site and Tonle Sap Lake, the largest freshwater lake in Southeast Asia (Singh et al., 2018, p. 10177).

Phnom Kulen National Park (PKNP) was chosen as the sample site for this case study due to several practical and methodological reasons. First, it was the site where my field semester host organization recommended I collect data as part of my internship responsibilities, the same data that I used for this thesis. Second, it represents a unique case of CBNRM due to the complexity of the historical, ecological, and socio-economic conditions of Phnom Kulen, which will subsequently be described.

Located 50 kilometers from Cambodia's most visited tourist attraction, the Angkor Wat World Heritage site, Phnom Kulen National Park (PKNP) itself is an area of cultural, religious, historical, ecological, and economic significance (Hayes et al., 2013). Founded in 802 as the birthplace of the Angkor Empire, Phnom Kulen was abruptly abandoned in the 9th century due to what scholars speculate was deforestation caused by intensive land-use (Penny et al., 2014). The empire was relocated to the Angkor basin, to what is today known as Siem Reap, where Angkor Wat was eventually built (ibid). Over time, forests in PKNP have recovered. Today, the area is home to deciduous and evergreen trees, including several species of *Dipterocarpus*, which historically have been used for timber (Gaughan et al., 2009).

In the last few decades, PKNP has experienced significant waves of in- and out-migration. During the Khmer Rouge era in the 1970s, people were forcibly removed from their villages to go work in rice fields at the base of the mountain (Nguon & Chevance, 2017). After the regime fell, people returned to their villages and have largely stayed there despite increased competition for fertile land. Many people have migrated to the area in the last two decades due to the mountain's reputation for an abundance of natural resources (ibid). There are now currently nine villages on PKNP, five of which are legal and recognized by the Ministry of Interior, and four of which are not (ibid).

Recently, communities in Phnom Kulen, or 'the mountain of lychees' as it translates to in English, have once again been threatened by deforestation (ibid). Although designated a national park and protected area (PA) in 1993, the 37,373-hectare area was one of the last remaining strongholds of the Khmer Rouge regime (Hayes et al., 2013). As such, landmines littered PKNP through the 1990s and were not completely cleared until 2002 (Schindele et al., 2004). Following the clearance of landmines, land grabbing and illegal logging rapidly escalated (Nguon & Chevance, 2017). Most of the forest has been converted to cashew nut plantations in the last decade due to their low maintenance and high-market value (ibid). Communities once dependent on subsistence polyculture have transitioned to monoculture, leading to rapid land degradation and threatening the biodiversity of the area, the quality of the area's soil, and the hydrological functions of the watershed, which serves the Angkor

Basin. It has also led to concerns of food security and nutrition, as many families no longer grow their own food crops, instead choosing to use income earned from the sale of cashew nuts to purchase food.

Recognizing the deteriorating ecological conditions of the mountain, in 2008 the RGC sought to engage communities in PKNP in sustainable NRM, with the goal to enhance livelihood opportunities whilst limiting the extent of deforestation. Five villages in PKNP entered into agreements with the MoE to establish CPAs (Nguon & Chevance, 2017). Under the 2008 Protected Area law, communities could apply to zone part of the forest as a “community zone” and gain customary rights to the land (MoE, 2008).

Nevertheless, as of 2013, forest covered less than 25% of the park (Hayes et al., 2013). Although socio-economic conditions have improved on the mountain, an influx of migrants and subsequent population growth has increased pressures on the environment (Nguon & Chevance, 2017). There are fears that if current trends continue, residents of Phnom Kulen could experience the same fate as their predecessors and be forced to migrate (Penny et al., 2014). A recent study (Singh et al., 2018) of Phnom Kulen revealed that illegal selective logging of valuable timber still persists within some of the CPA boundaries. However, overall, the CPAs have shown to reach some conservation objectives. Between 2012 and 2015, forest within CPAs in PKNP had lower rates of deforestation than forests outside of the CPAs within the study area (ibid). They also faced fewer threats from the encroachment of cashew nut plantations than the rest of the national park (ibid).

### 4.3 Data collection methods

Primary data was collected in the case study site through individual semi-structured interviews. These were the preferred methodology as they allowed participants the time and space to reflect on their experiences, as well as to share their perceptions of gender roles. The choice of data collection methods was also influenced by the conditions at the field site. Originally, the methods included focus group discussions (FGD), as historically, they have been recommended for participatory research methods focused on gender (Jayaratne &

Stewart, 2014). However, due to local circumstances, it was not possible to arrange FGD. Nevertheless, individual semi-structured interviews proved strategic as they allowed both men and women to express their individual perspectives, reducing the possibility that they would be influenced by the social cohesion of a group.

To prepare for data collection, a desk review was conducted of previous studies at Phnom Kulen, including an ethnographic and socio-economic assessment of the park commissioned by UNDP in 2017, as well as articles published in academic journals. An initial field mission was made to the site in mid-December to gain a spatial understanding of the area and plan for data collection. This preliminary trip was crucial, as it led to realizing the importance of having a gatekeeper in the field. Although I initially intended to hire a Cambodian Master's student with experience conducting research on gender inequality to be my interpreter, this initial visit made me realize the importance of having a gatekeeper to introduce me to community members in PKNP. Ultimately, I was able to hire someone who has worked in PKNP for a decade, which was arranged with support from UNDP.

During the last week of December 2018, the research team set out to conduct interviews with communities in PKNP. Aside from myself, this team included a Cambodian conservationist working for a local NGO, who acted as my gatekeeper and interpreter, and national UNDP staff member who provided additional interpretation support. Semi-structured interviews were conducted with experts in conservation and natural resources management in January 2019 to complement this data and fill knowledge gaps.

#### 4.3.1 Sampling

Due to the vast area of PKNP, interview respondents were selected through purposive sampling with the aid of my gatekeeper. Interviews were held in six of the nine villages in PKNP. Two villages were omitted from the study due to their inaccessibility. Three of the villages (Thmor Chhrounh, Ta Penh and Sangke Lak) where interviews took place are considered legal villages by the Ministry of Interior and have established CPAs, while the remaining (Popel, Phum Thmey, and Ta Han) are considered 'illegal' and do not. The illegal

villages emerged as a consequence of migration and are not yet formally recognized by the Ministry of Interior.

Key informants included community members, village chiefs, CPA members, and CPA chiefs. In total, 11 women and 8 men between the ages of 26 and 85 were interviewed. Both men and women were interviewed in order to capture a better understanding of gender dynamics, rather than produce a nuanced perspective of gender only from the eyes of women. By choosing respondents with various roles in the community, including members and non-members of a CPA, the study aimed to gain an understanding of why some people may participate in the CPA management while others do not. All of the key informants, with the exception of one woman, were married or widowed. A list of anonymized participants can be found in the appendix.

All respondents were informed of the purpose of the interviews and asked for their consent to participate in, as well as to record the interviews. All interviews were conducted in Khmer with the aid of interpreters. On average, interviews lasted between 30 minutes and 1 hour.

#### 4.3.2 Transcription and coding

In preparation for the analysis, all of the recorded interviews were manually transcribed and uploaded to NVivo. I tried to transcribe word-for-word, however, in some instances I had to edit for grammar and clarity. Notes from interviews I did not record, such as expert interviews, were also uploaded to Nvivo. Using the software, the interviews and notes were then coded, line by line, according to preliminary themes identified through the literature review and fieldwork. The data was then combed for consistencies to see if there were some prevailing themes I might have initially overlooked. It was an iterative process and I found myself returning to the codes and reconfiguring them several times throughout the analysis.

## 4.4 Limitations, positionality, and ethical reflections

This section aims to provide reflections on my research, including limitations, positionality, and ethics, all of which Tracy (2010) considers critical aspects for generating high-quality data. As a qualitative study, this research inherently has some weaknesses given that it is unable to formally generalize findings (Creswell, 2007). Moreover, as a case study, this thesis aimed to provide context-specific knowledge that may not be applicable in other contexts (ibid). Nevertheless, the knowledge generated through this thesis still contributes to “the collective process of knowledge accumulation” in the field of natural resources management and yields important insights about participation in community-based institutions (Flyvberg, 2006, p. 227). It helps fill gaps in the literature on CBNRM in Cambodia, due to both the choice of an under-studied site, Phnom Kulen, as well as the choice of studying a community protected area rather than a community forest. However, as Hammett et al. (2014, p. 15) warn, “research does not occur in a vacuum”. It requires one to contend with unequal power dynamics and unexpected realities that cannot always be planned for.

Several authors note the importance of establishing trust and intimacy with key informants as a way to counter these power dynamics and ideally, generate authentic conversations and knowledge (Flyvberg, 2006; Funder, 2005). According to Flyvberg (2006, p. 236),

*“The most advanced form of understanding is achieved when researchers place themselves within the context being studied. Only in this way can researchers understand the viewpoints and the behavior, which characterizes social actors.”*

While immersing myself in the context of my research was certainly desirable, due to practical realities, I was only able to visit my case study site on two occasions for several days each time. The limited time frame, combined with cultural and linguistic barriers, made it challenging to establish trust and intimacy in the communities where I did my research. As an outsider with a higher socio-economic status than the interview respondents, there were inevitably some uneven power dynamics to contend with (Hammett et al., 2014). I attempted to circumnavigate these by hiring an interpreter who has worked with a local NGO in PKNP



for more than a decade. Nevertheless, I unintentionally became “enrolled in local power relations” to some degree, by adhering to cultural customs and ensuring that I interviewed the chiefs of every community I visited (Funder, 2005, p. 6).

Other aspects of this research that deserve some reflection are the ontological and epistemological perspectives. By entering the field with a ‘feminist perspective’, I was specifically looking for gender inequality and thus may have missed intersectional aspects of inequality (Lapniewska, 2016). Moreover, while I tried not to take a heteronormative approach, I found it difficult to do this in a context where patriarchal norms are deeply embedded. In regards to ethical considerations, all key informants were informed of the purpose of the study, asked for their consent prior to beginning the interviews, and told that they could withdraw from the interview at any time if they felt uncomfortable. Due to the low literacy levels of respondents in Phnom Kulen, oral consent was recorded rather than written consent. The four expert interviews all gave written consent to participate in the interviews. Given that some of the topics discussed in this thesis are of an illegal nature, all key informants were assured that their responses would be anonymized.

## 5. Analysis and discussion

This chapter presents an analysis and discussion of the key findings from interviews with men and women in Phnom Kulen National Park, Cambodia, with supplementary and contextual information gathered through expert interviews. The purpose of this section is to articulate some of the core challenges men and women face to participate in and realize benefits from community protected area management, a form of CBNRM. As such, this section will discuss how rules, both formal and informal, as well as resources, including human, social, natural, and economic, affect agency, and thereby participation. Then, a table summarizing how people participate in community protected area management in PKNP, will be presented. This is followed by a concluding discussion on whether participation amongst men and women can be considered equitable, and whether it can lead to empowerment.

### 5.1 Rules, agency, and participation

#### 5.1.1 Formal rules

##### *CPA chiefs*

Interviews in communities in PKNP revealed that formal rules do not significantly promote or hinder participation in CPA management. To become the chief of a CPA, an individual must be nominated by their community or nominate themselves, and subsequently be selected through a democratic vote. The role of a CPA chief is to discuss natural resources management challenges with the village chief, record issues within the CPA, such as illegal logging, and communicate these issues to the Commune Chief. CPA chiefs also act as mediators and focal points for the NGOs that frequently visit the communities in PKNP. CPA chiefs are expected to attend workshops and trainings hosted by the MoE educating them about how climate change and continued deforestation will affect the forest, and hence the watershed functions in PKNP. Literacy is evidently a necessary attribute to fulfill these responsibilities. Unfortunately, low education levels and illiteracy in PKNP prevent many, both men and women, from being able to pursue leadership positions with the CPAs.

However, given that the literacy rate in Cambodia is lower among women than among men, women are at a particular disadvantage (NIS, 2017).

#### *CPA committee councils and management activities*

Anyone can nominate themselves to become a member of a committee council, the local governing bodies of community protected areas. Neither CPA chiefs or council members receive income for their engagement with the CPA. Like CPA chiefs, members of the councils are chosen by democratic vote. There is no limit to how many members can be on a council, however, most in PKNP have 8-12 members. Women represent approximately one third of each council. While this figure illustrates that women are included in CPA management, as Cleaver (2007) notes, inching closer to gender parity does not necessarily signify empowerment. It is not just a matter of whether women are on the council, but whether they are able to exercise decision-making power within the council.

Decision-making processes within councils vary. Since they have been established for some time now, the by-laws or 'rules of use' are already in place (Ostrom, 1990). Nearly all members interviewed mentioned a consensus-building process, where issues are discussed extensively amongst each other before making a decision. Alternatively, one chief claimed that he makes all decisions and then informs the council and the community (Interview 13). Some commonly discussed issues include how to prevent people from outside the village from clearing the forest within the CPA and educating community members about the demarcated boundaries and their implications for NTFP collection. Although logging is strictly forbidden in the CPA, occasionally a villager will request to cut a tree down to build something that benefits the community, such as a school. Though rare, when these requests are made the council discusses the villager's justification and if the members agree, will send the CPA chief to Phnom Penh to gain approval from the MoE.

Besides discussing rare cases of selective, requested logging, the primary activity associated with being a member of a council is forest monitoring. This entails patrolling the forest, in the day and at night to ensure nobody is logging within the boundaries of the CPA. Forest

patrols are also open to non-council members, as the areas under community protected management are vast and require several members to patrol at a time. Therefore, people still have the opportunity to participate in CPA management without becoming a council member. However, it is mostly men that voluntarily join. MoE rangers are responsible for monitoring the forest in the non-CPA areas. However, resources are limited and the government does not have the capacity to support the amount of rangers truly needed to patrol the entire national park, making council members and volunteers an invaluable resource. The councils also occasionally host meetings or educational workshops to inform community members about the importance of protecting the remaining forest in the CPAs and adhering to the protected area laws.

### 5.1.2 Informal rules

#### *Gendered spaces and responsibilities*

Informal rules appear to play a much greater role than formal rules in determining who participates in CPA management. The interviews revealed that there are gendered divisions of responsibility between household and community spaces. This has implications for who has both the time, and energy, to participate. Women are responsible for all of the reproductive work including raising children, cooking, and cleaning, as well as productive work such as managing livestock and agriculture. Meanwhile, men typically only engage in productive work, such as agriculture, and sometimes community affairs, including forest patrolling. Nevertheless, women's contributions to household labor are still viewed with bias. As one man noted, "women are not so strong. I do more than my wife in the household. I give her the easy jobs" (Interview 3).

All respondents described women as responsible for household finances, with men often referring to women as 'the banks'. While this might suggest that women observe some independence, the reason they are responsible may be instrumental rather than based on equity. As in similar contexts across the global and in Cambodia, women in PKNP are often seen as more trustworthy than men and more likely to spend income on family rather than individual needs (Kennedy & Peters, 1992). Many women expressed a concern that if their

husbands were responsible for finances, they would spend the family's income on purchasing alcohol.

Upon discussing divisions of labor within her household, one woman remarked,

*"I never thought about the unequal workload between me and my husband until you mentioned it. Even though we live in the same household, have the same [access to] money, and I work all day long and don't have any time for myself, my husband has time to drink. I need to ask my husband to stop drinking and come help the family and do work."*

*(Interview 16)*

Another described how she wakes up at 3:00 am every morning to make rice for her children who must leave for school at 5:00 am (Interview 14). She then takes care of pigs, which she raises to sell for income, tends to the family's cashew nut plot, and prepares dinner. These norms designating women as responsible for both domestic and income-generating work leave women with a 'double burden of labor' and 'time poverty', both of which prevent them from having the time or energy to engage in activities beyond their daily responsibilities. Time poverty appeared to be a significant barrier for all people, but especially women, to engage in community affairs, including those related to the CPA.

However, household divisions of labor may not be as clear-cut as they seem. Whereas in the past responsibilities were strictly divided, today, women have the opportunity to contribute to household income. The civil war and genocide took a heavy toll on the country's population. Those who survived had to work together to fulfill responsibilities, which may have opened up new opportunities for women. According to an elder in one community (Interview 2),

*"When I was young, men and women did not really do the same work. Hard work was mostly for men. Women had to stay home and take care of the household and take care*

*of the family. But then things changed. After the civil war, both men and women did the same activities. Women could even do hard labor.”*

*(Interview 2)*

Another indication of how gendered spaces and responsibilities affect participation in CPA management concerns entrenched claims to the forest. Both men and women identified themselves as responsible for collecting NTFP within the CPAs, with women primarily obtaining *kuma leaves*<sup>4</sup>, rattan, vegetables, mushrooms, and lychees, and men primarily responsible for collecting wild honey or forest vegetables due to what women described as men’s ‘special physical capabilities’ to climb trees. However, a few women stated that they were too scared to go into the forest to collect NTFP or engage in forest monitoring due to ghosts (Interviews 15, 16). While it was not explicitly discussed, fear of violence and rape may be a deterrent for women to enter the forest, and hence participate in forest monitoring, as has been the case in other community forests and CPAs in Cambodia (Bradley et al., 2013).

Respondents mentioned collecting NTFP outside of the CPAs as well, which is illegal according to the 2008 Protected Area Law, however, they noted that the supply of NTFP in those areas had been greatly reduced due to deforestation (MoE, 2008). What this illustrates is that women and men both share the responsibilities of collecting NTFP, indicating that there is not necessarily ‘gendered knowledge’ of the environment in Phnom Kulen that gives men or women an obvious advantage to engage in CPA management, as gender-environment narratives tend to claim (Rocheleau, 1996). Moreover, some women explicitly stated their avoidance of the forest, illustrating why they wouldn’t engage in community-based management activities.

Most men and women described women as the ‘salesperson’ responsible for negotiating with middlemen and buyers of NTFP collected from the CPA. Nevertheless, while women’s market-oriented negotiation skills can grant them more independence as active contributors to household income, it does not necessarily grant them the confidence to engage in

---

<sup>4</sup>Leaves with inflammable properties. People put them on their roofs or sell them to hotels in Siem Reap.

community affairs, including CPA management, as the discussion of ‘resources’ will later illustrate. Moreover, one man described the consequences experienced after his wife, who is illiterate, tried to negotiate the sale of their cashew nut crop.

*“My wife cannot read and write Khmer. She has very poor knowledge and people were taking advantage of her. They asked her to buy their product for \$1,500 and to be part of their staff. She sold one cashew nut farm and took \$1,500 to buy that product. She didn’t listen to me even though I explained that the business was fake but she didn’t care. So we lost a lot of money. The people kept the money and now some of our cashew nut farms have already been sold.”*

*(Interview 3)*

#### *Women in leadership and decision-making*

Although several women expressed interest in decision-making and leadership, like throughout much of rural Cambodia, few women hold leadership roles in PKNP. This is evident by the fact that none of the village or CPA chiefs in PKNP are women. An interview with a representative of the Ministry of Environment revealed that out of the current 153 CPAs in Cambodia, only three have women as CPA chiefs. Since there is no by-law barring a woman from becoming a CPA chief, this wide gender disparity in CPA leadership can be considered a consequence of norms rather than any ‘formal rules’. This presents what Agarwal (2001) calls a ‘missed opportunity’ for leadership that better reflects the interests of the whole community.

Another ‘informal rule’ that may prevent typically marginalized voices, such as women, from holding leadership roles in the CC, is that many men have held their positions as leaders in the community for decades. As one CPA chief stated, “I have been voted chief of the CPA four times. I always win. I was also voted chief of the village” (Interview 13). Likewise, another village chief has held his position for 39 years (Interview 1). Another assumed the position of village chief after being elected by the community (Interview 18). His father was

previously the village chief. This illustrates how in order to earn positions of power in the community, women need to upset the status quo.

While both men and women stated that they engage in household decision-making and suggested that women exert more influence in households than men, women's influence in community decision-making was less obvious. Although men were quick to insist that men and women are equally involved in community affairs, further probing revealed that this is not the case. Of the women who are in power, some have been supported by local NGOs, illustrating the importance of invited participation for challenging informal rules (Cornwall, 2008). However, whether invited participation is enough to change norms remains unseen. As one village chief remarked, "she is only involved because of the NGO. No one would have voted for her otherwise" (Interview 18).

Nevertheless, to say that women are not engaged in community affairs at all would be misleading. Nearly all the women interviewed mentioned attending community meetings, oftentimes more than men. However, few described actively participating in the meetings and voicing their opinions, illustrating how women's confidence in the household does not necessarily translate to confidence in the community. Moreover, both men and women described how some women in particular attend meetings without understanding their purpose, and as a result bring up unrelated topics or sit in the back and gossip. As a consequence, many men do not perceive women as competent or capable of engaging in CPA management.

### *Women's issues*

Moreover, women in PKNP do not regard themselves as the natural-born caretakers of the forest or environment around them and only a few expressed an interest in CPA management (Rocheleau, 1996). Rather, the issues they most commonly described themselves engaging with in the community were gender-based violence, food security, child welfare, and water and sanitation. This may be because unlike in other rural contexts, women are not responsible for gathering wood from the nearby forest, since as a CPA and PA, such activities



are banned. Instead, they use gas cookers and wood purchased from the local market. This essentially eliminates a domestic responsibility typically held by women in rural contexts. Moreover, infrastructure development has led to the implementation of wells in most communities, eliminating another typically women-held natural resources-related responsibility. Gender-based violence (GBV) also repeatedly emerged during interviews as one of the main challenges women contend with in PKNP. While not directly linked to CBNRM, the prevalence of GBV in PKNP signifies that women will prioritize this as a main issue they engage with in the community, rather than NRM. It also signifies poor well-being outcomes, which according to Kabeer (1999), is a sign of disempowerment.

#### *An invitation to engage*

Another norm affecting participation in CPA management may be the expectation that one must be explicitly invited to participate. While explicit invitations did not appear to affect men's engagement, several of the women explained that they did not participate because they were not asked to. As one woman noted, "I want to be involved in activities to protect the forest, but unfortunately I have never been asked to join" (Interview 14). This contrasts with men's accounts, which claimed that everyone is invited, including women. It was clear from these discussions that men and women have different perceptions of how men and women engage in MA. It also underscores how unspoken 'rules', such as being personally invited to participate, may inform how women see themselves in the world, and therefore, what is possible (Pandolfelli et al., 2007). This notion, of cognitive schema, will be further discussed in chapter 5.2.1.

While gender norms certainly shape participation in CBNRM as well as community decision-making more broadly, it is important to take into consideration the cultural context within which these norms sit. As Mahanty et al. (2006, p. 5) explain, "most of the CBNRM literature in fact does not sanction a culturally determined concept of equity". Based on this, it is important to consider that while spaces where both men and women can share their opinions is desirable, openly and publicly expressing dissent is not characteristic of Cambodian culture. The broader cultural context these norms are situated in can affect how

equitably and openly everyone, not just women, participate in community-based institutions.

From this discussion I conclude that informal, more than formal rules, affect who has the *agency* to participate in CPA management, as well as how. Norms which relegate women to the domestic sphere make it difficult for women, in particular, to partake for two reasons: 1) their presence in community decision-making and thereby, CPA management, is neither expected nor encouraged and, 2) due to normative expectations for them to manage households, they have little time or interest to engage in MA. In the following section I discuss how human, social, natural, and economic resources influence participation.

## 5.2 Resources, agency, and participation

### 5.2.1 Human and social resources

#### *Education and awareness*

One of the most significant factors affecting participation in CPA management in PKNP is education level and awareness of the CPAs. Only two of the nineteen respondents from PKNP are literate, which as previously mentioned, poses challenges for fulfilling leadership responsibilities and engaging with relevant stakeholders, such as the government and NGOs. While this study did not compare education levels between men and women, women more often than men described their lack of education as one of the reasons why they do not participate. As a woman deputy chief of a CPA explained, “most of the women don’t want to participate in the CPA activities because it’s difficult to talk and they don’t know how to read and write Khmer” (Interview 10). This was reiterated by a CPA and village chief, who recounted previous experiences with women in leadership positions,

*“Before, the deputy chief was a woman. But she was not smart enough. She didn’t know how to read or write and so she couldn’t record anything. So we had a vote and now she is no longer the deputy chief, just a CPA member. Now she can just patrol.”*

(Interview 13)

One of the respondents with the highest education level and the only literate woman interviewed is a member of a council (Interview 11). She is responsible for secretarial duties and prepares questions and answers for the meetings. However, even she did not exude an air of confidence or seem proud of her contributions. When asked how participating made her feel, she said “neutral”, that she still does not have much power. This illustrates how higher education levels do not necessarily correspond with feelings of empowerment.

Literacy affects who can participate and benefit from the CPA now, but also in the future. Men were described as being more likely to benefit from burgeoning ecotourism opportunities offered through the CPAs as they tend to be better educated than women and thus have a higher likelihood of speaking English, an increasingly necessary attribute as international tourism in PKNP grows. This corresponds with national statistics, which indicate that on average, 17.5% of women in rural areas have never attended school compared with 9.5% of men (NIS, 2017). For a few, illiteracy also affects their awareness of the boundaries of the CPA. As one woman stated, “I don't know the boundaries. I don't know because I cannot read the signs” (Interview 8).

Nevertheless, it was clear that the RGC and NGOs have been working to raise awareness among communities in PKNP of the purpose of the CPAs. Nearly everyone interviewed stated that they are aware of the boundaries of the CPA and comply with them. Several respondents mentioned that violations from within the community have decreased since the CPAs were established but described how illegal loggers from outside the community remain a threat.

*“People understand the rules, especially people from this village, but sometimes people from outside the village come and try to take trees from the forest and we go to stop them. When we discover loggers we try to stop them but they only stop [logging] for one day. Then, the day after, they go a different way and start [logging] again.”*

(Interview 9)

Most respondents expressed a concern for the state of the environment and diminishing forest in PKNP. Several people described this awareness of the environmental state of PKNP as a main motivation for participating in CPA management, either as chief, deputy chief, or a council member.

*“People become CPA members because they already understand that they need to protect the forest and the natural resources. Because around the village there is no more forest anymore. There is only forest in the CPA area. So they have to protect it. Even if it is a volunteer job, they’re happy to do it,” stated the village and CPA chief of Sangke Lak.*

*(Interview 13)*

Similarly, the chief of Popel explained,

*“If we don’t take care of the forest, the forest will be gone and it will be very hot and there will be no water to drink...we want to save the forest because it is easier to live here than to move somewhere else. Maybe we can even attract tourists here in the future.”*

*(Interview 10)*

Many were aware of climate change, and described how there is no longer a cool season in Cambodia. Moreover, people seemed aware of the declining water supply. Those who had attended trainings by the MoE were aware of its connection to the decreased forest cover, while those who did not were unaware of this connection. Nevertheless, nearly everyone expressed concern for the future water supply, especially in relation to the survival of cashew nut plantations.

Most respondents did not seem to understand however, how slash-and-burn agriculture and cashew nut farms, both of which are considered illegal in PKNP, have exacerbated environmental challenges. In fact, the distinction between cashew nut farms and the forest was unclear. During several interviews, people described ‘going into the forest’ when they

really meant to the cashew nut plantations. This is problematic since it could distort people's perceptions of the severity of environmental degradation, and illustrates the importance of clearly defining natural resources when establishing CBNRM schemes. Moreover, an awareness of how the councils operate was lacking, with few respondents, including those on the councils themselves, able to articulate how they function. This may speak to the informality of procedures as much as it speaks to people's awareness of their functioning.

### *Cognitive schema and low confidence*

Although women in PKNP have significant domestic responsibilities, including financial management, many do not seem to see themselves as important stakeholders in community affairs. Their perception of the world and their role in it, otherwise known as cognitive schema, is informed by norms as well as education level (Pandolfelli et al., 2007). This influences what they perceive as possible, and thus their *agency* to challenge these norms and engage in CPA management. Low confidence was exemplified during several interviews when women expressed being unsure of answers to questions about their interests and dreams. None of the men interviewed struggled with this. Moreover, many women cited a fear of public speaking as a barrier to participation, further illustrating low levels of confidence. "A small part of me wants to join the CPA but another part of me doesn't because I don't know anything. I do not know much about the CPA, but I know that it exists," said one woman (Interview 16). When discussing her sometimes controversial viewpoints, another woman stated that, "I do not have a lot of courage to speak to people. I am scared and worry that people may dislike me" (Interview 14).

Another woman reluctantly embraced her role as deputy chief of Popel CPA. Despite her lack of education, her experience working with other NGOs may have enhanced her credibility and hence social resources within the community, inspiring others to nominate her.

*"I did not want to be the deputy chief of the CPA, I just wanted to be a council member. But then they voted for me. There was no choice for me, I had to become the Deputy Chief. I didn't want to be it because I don't know how to write, so I felt scared about*

*that...and I feel like I shouldn't use this power to become another person. I still have the same level of opportunity as everyone else."*

*(Interview 10)*

Just as women's cognitive schema shape their ability to participate, men's cognitive schema affect how they participate and how they view women's participation. Of the nine men interviewed, none openly discouraged women from participating. However, few openly advocated for their participation either. When women are explicitly encouraged to participate, it may not be for their intrinsic value but to enhance the effectiveness of forest patrolling. According to the CPA chief of Popel,

*"We have to work together to patrol the forest, all of the men and women. Illegal loggers do not normally like us. When we have a problem with an illegal logger, the women will stand in between our men and the loggers. When the logger talks to a woman he doesn't feel so angry with the men. Women make them feel calmer and softer. We need everyone involved."*

*(Interview 9)*

This exposes women's participation in CBNRM to the "intrinsic vs. instrumentalism" debate of whether they should be included and encouraged to participate based on their intrinsic value or as a way to achieve an outcome (Kabeer, 1999 & 2005; Pandolfelli et al., 2007; Cornwall, 2008). Pandolfelli et al. (2007) argue that a third approach, which promotes women's participation in CBNRM based on their strengths *and* their intrinsically equal value to men, is ultimately needed.

## 5.2.2 Natural resources



*Forest canopy in Phnom Kulen, with very little old-growth forest left.  
(UNDP Cambodia/Ratha Soy)*

### *Too late for community protected areas?*

Establishing a community protected area in Cambodia is a long and cumbersome process. It typically requires technical and financial support from external actors, such as an NGO or development aid agency, and can take up to 10 years with an estimated cost between USD \$50,000 and \$100,000<sup>5</sup>. Oftentimes, the prospective protected area is already so heavily degraded by the time the appropriate legal mechanisms are in place, there are few benefits to be gained from it. This appears to be the case in Phnom Kulen National Park, where the forest was already heavily degraded before CPAs were established in 2008.

Consequently, one of the most salient factors influencing both men's and women's participation in CPA management is the ecological context of PKNP. Nearly 80% of the forest

---

<sup>5</sup> Interview with expert on natural resources management in Cambodia

has been lost in the protected area in the last two decades, with the remaining 20% of forest largely concentrated in areas under community protected area management (Nguon & Chevance, 2017). While this demonstrates that the CPAs have been successful from an environmentally sustainable perspective, it also illustrates that the area's natural resources are so depleted, there are few remaining tangible benefits to be gained from protecting the remaining resources. As people in PKNP have discovered, agriculture, particularly cashew nut plantations, yield far greater economic benefits than NTFP. Whether for household or commercial use, NTFP provide limited benefits and mostly act as supplementary income -- a 'safety net' during times of economic insecurity. Interestingly though, one respondent claimed that the diminishing forest has increased the value of some resources, such as rattan.



*A woman uses natural fibers from the forest to weave a basket. (UNDP Cambodia/Ratha Soy)*

Nevertheless, while some people still earn some income from collecting and selling NTFP, all of the respondents rely predominantly on cashew nut plantations for their main source of income. Since people's livelihoods no longer depend predominantly on products from the forest, they have fewer incentives to protect it. While those who are still dependent on NTFP might have the most incentives to engage in CPA management, they are also typically among the poorest families and therefore have the least *time* to engage in such non-income generating activities. The decline in natural capital also has implications for gendered



livelihoods. Women are reducing their dependence on the sale of NTFP for supplementary income by creating home gardens and raising livestock. Moreover, since women are typically responsible for cooking all meals, they rely more frequently on purchasing vegetables and subsistence agriculture than previously. The quote below aims to illustrate the extent of forest degradation in PKNP and the limited natural resources now available.

*"We always used to go to the forest to get vines or rattan to bring and sell in the town down the mountain. But now there is no forest, there is only cashew nut farm. We cannot find any more forest stuff to sell".*

*(Interview 1)*

Although the CPAs are considered by many as one of the 'last hopes' to save the forest in PKNP, the following quote demonstrates that there is still significant skepticism among residents for how the CPAs can effectively protect the remaining forest while providing them with benefits.

*"I know that the CPA in other villages or other areas don't really work. They have a committee but there is still some illegal logging. There were a lot of water sources in the village but very low water available now. Supplementary crops don't really work here anymore since there's no more water."*

*(Interview 2)*

In fact, in some ways designating the area as a national park may have backfired, and led people to grab land for cashew nut plantations before it became designated as part of a CPA.

*"Before, there was a lot of freedom to clear the forest and grab the land. We're not allowed to clear the forest anymore or grab the land. But because of these new restrictions people started grabbing land. Now forests are gone and there is no more rattan."*

*(Interview 2)*



*Deforested land just outside of Phnom Kulen National Park. (Author's own)*

Nevertheless, the ecological vitality of PKNP rests on the maintenance of the forest cover largely concentrated within the CPAs. Therefore, effective CPA management can help preserve the remaining natural resources. Several people engaged in the CPA recognize this and cite it as a reason for their participation. One CPA chief stated that “there’s only 77 hectares of this forest left, and we want to save it for the new generation” (Interview 13). Another proclaimed that they need to save the forest so that the next generation can experience the area’s rich biodiversity (Interview 9).

### 5.2.3 Economic resources

*“We need incentives and motivation to patrol. The CPA team does not have income. We just volunteer. If we only volunteer, we do not receive income for our family. It’s double the work.”*

*(Interview 10)*

Poverty also acts as a major barrier to participating in CPA management, as participation takes time away from income-generating activities. As several respondents, including the woman deputy chief of Popel noted, if they devote all of their free time to CPA activities, this takes away from time that could be spent earning income. Since growing cashew nut trees is more lucrative than most livelihood activities in the area, few are reluctant to give up this practice. Many respondents pleaded for more support from the government, either through monetary or material resources.

*“There are two things that we need to effectively keep the forest. First, we need political support from the government. We need good leadership for the CPA so that people have clear roles and responsibilities and are more effective and transparent. Second, we need participation from the villagers. We need to be strong advocates for the forest near the village so that people understand the importance of the forest and know that it is for everyone. That people know they can participate in protecting it. People need to feel that the forest is their own inheritance.”*

*(Interview 17)*

While NTFP still provide some economic benefits, weak value chains and market access prevent them from providing more substantial income, as they have been shown to do in other rural contexts. Although the RGC and NGOs in Cambodia are working to enhance value-chains for NTFP harvested from CPAs and CFs, in the interim, the sale of NTFP is not enough to incentivize people’s participation in CPA management (MoE, 2017; Motzke et al., 2012). Some believe that “only the cashew nut plantations can transform their livelihoods” (Interview 1). Some families can earn up to USD \$5,000 growing cashew nut trees.

Alternatively, the potential economic rewards of ecotourism are a strong motivator for many to protect the forest. One woman shared hope for ecotourism to offer livelihood benefits. “I hope that if we save the forest, we can attract tourists to visit the community in the future” (Interview 11). Despite PKNP’s cultural heritage, limited infrastructure on the mountain and

its access dictated by a private company<sup>6</sup> have resulted in minimal tourism opportunities to date. Tourism has yet to provide substantial income to communities there. Over the course of three years, Popel CPA earned just USD \$1,200 from ecotourism for the entire community, whereas the average household annual income is between \$2500 and 3500 annually (Nguon & Chevance, 2017). Profits from ecotourism are divided between the tour guides and a ranger, with the remaining funds saved for the CPA council. One respondent claimed that a private tour company that partnered with the community has failed to deliver all the profits owed to the council. Nevertheless, while communities' abilities to capitalize on ecotourism is limited by several factors, community-based ecotourism does present an incentive to conserve the remaining forest in PKNP.

This discussion of resources reveals the complex interplay of factors that influence participation in community protected area management in Phnom Kulen National Park. It explains how human and social resources, such as education level, literacy, cognitive schema, and confidence, influence whether a person chooses to participate in CPA management. These types of resources tend to be different for men and women, with women often having less access to human and social resources. These factors, combined with the informal rules, help explain the gender gap of participation in CPA management in PKNP.

However, less gendered aspects that influence whether someone participates in CPA management include natural and economic resources. The opportunity costs of participating in CPA management are too high for many to bear, with the majority of income coming from cashew nut plantations rather than ecotourism or NTFP. Moreover, the limited natural resources remaining in all of PKNP as a consequence of illegal logging and the conversion of land for agriculture provides both incentives and disincentives for participation in CPA management. While some feel motivated to save the little natural capital that remains, others see no economic incentives to engage since forest-dependent livelihoods are nearly obsolete.

---

<sup>6</sup> In the late 1990s, a private company was granted an economic land concession for an area of land at the base of PKNP. Although the company charges foreign visitors \$20 per person to enter the national park, it provides no known services or benefits to the communities in PKNP. The Ministry of Environment is currently trying to re-purchase the economic land concession so that it can manage park visitors and earn revenues from the entrance fees. (Interviews with experts)

Those who do participate receive no monetary benefits from the community or government, illustrating broader institutional weaknesses.

### 5.3 Summary of participation

Below is a summary of the ways that people participate in community protected area committee councils and management activities in Phnom Kulen National Park, based on Agarwal's (2001) typology of participation.

<b>Type of participation</b>	<b>Examples</b>
<i>Non-participation</i>	A select few do not know where the boundaries of the CPA are. Some doubt or do not understand the purpose of the CPAs.
<i>Nominal</i>	Both men and women are aware of the CPAs, however, many are not interested in being elected to the councils or participating in forest patrols due to the low benefits offered.
<i>Passive</i>	Many women are aware of but not invited to meetings and therefore not included. Some do attend but do not speak up. Alternatively, men either attend and voice their opinions, or they do not attend.
<i>Consultative</i>	Due to the lack of 'gendered environmental knowledge', neither women's nor men's insights are specifically sought out for CPA management. However, women are specifically sought out to attend meetings when NGOs come to the community to host workshops for 'women's issues' such as water and sanitation, nutrition, health, or education.
<i>Activity-specific</i>	Women are sometimes asked to join forest patrols specifically because they help pacify illegal loggers. Men are always needed because of the potential dangers involved.

<i>Active</i>	Women that engage in the CPA councils join reluctantly and/or are only in supportive roles. Men still dominate decision-making.
<i>Interactive (empowering)</i>	Neither men nor women seem particularly 'empowered'. They cite broader institutional inefficiencies (lack of funding and capacity) as limiting their ability to benefit more from the CPAs.

## 5.4 Outcomes

From this discussion of how both rules and resources influence agency and effectively, participation, I deduce that both men and women participate in CPA management, although to a limited degree. Many men and women 'nominally' participate, meaning that they are aware of the CPAs, however, that is the extent of their engagement. Nevertheless, they benefit, however indirectly, from the CPA through its watershed functions, bringing to light the notion of 'free-riding' (Olson 1965). The connection between monitoring the forest to protect it from illegal logging, and improved water supply, is not very tangible, and therefore not a strong motivator for most. Even so, most community members claimed that they adhere to the CPA rules, even if they are not actively involved. This suggests some progress given that in the rest of the protected area, illegal slash-and-burn agriculture is still rampant.

Similar to Motzke et al.'s (2012) findings from the periphery of PKNP, the communities seem to consider the non-CPA areas within the PA as 'open access'. Even those who are active in the CPA MA, and thus understand the purpose of the forest, continue to practice illegal agriculture in the non-CPA protected area. However, this might be considered a consequence of the lack of viable alternative livelihoods, rather than a lack of awareness.

### 5.4.1 Equity

Based on Mahanty et al.'s (2006) definition of equity, it is apparent that participation in CPA management in PKNP is politically inequitable. Men and women are not equally represented in CBNRM decision-making, and even when they are, men's voices tend to carry more weight than women's due to different cognitive schema and education levels. As has been previously

discussed, there are not currently many economic benefits to be gained from the CPAs. Therefore, economic equity is not a main concern for this case. If or when community-based ecotourism becomes a viable alternative livelihood to agriculture, concerns of economic equity will become more relevant, as men are more likely to benefit from tourism than women due norms and human and social resources. Equally, economic equity will become a central concern if institutional support for CBNRM is strengthened and economic incentives are offered in exchange for conservation.

#### 5.4.2 Empowerment

Returning to Kabeer's (1999) definition of empowerment, the very establishment of CPAs in PKNP, which gives communities the legal rights to access and use but not *own* land, might be considered 'empowering' given that previously, communities lacked formal entitlements. However, a key criteria for empowerment entails having the ability to influence well-being outcomes. As evidenced by the discussion above, few noticeable, tangible benefits have been gained from the community protected areas in Phnom Kulen thus far. While cleaner water, air, and a healthy supply of NTFP are important, CPAs do not provide enough tangible benefits to truly 'empower' communities in PKNP.

As the following quote illustrates, the 'empowering' rhetoric promoted by the national government and NGOs contrasts with the realities on the ground. One CPA chief remarked,

*"I want to ask the local authorities to help me stop illegal activity in the forests because I do not have the authority to do that. I am not the police. I am not a ranger. I am just trying to save the forest near my community."*

*(Interview 2)*

This aligns with similar findings from a study (Sen 2006) of CPAs shortly after they were first implemented, which found that communities living near CPAs ultimately perceive the forests as belonging entirely to the state, despite the fact that CPAs grant communities the legal

authority to manage and sustainably use land. This illustrates a disconnect between how communities and authorities see the role of communities in sustainable NRM.

Moreover, on an intra- and inter- community level, empowerment is an elusive term. Only those who are 'actively' or 'interactively' involved in CBNRM are likely to experience this phenomenon, and even then, it is clear from the discussions above that active participation has not resulted in obvious well-being outcomes. Furthermore, bringing a gender perspective to empowerment, differentiated norms and access to resources between genders highlights the challenges women face to become empowered. While women's engagement in CBNRM can help challenge gender norms, it has not completely eliminated them, nor should it be expected to. The prevalence of GBV and the inequitable distribution of productive and reproductive labor demonstrate that gendered inequalities are still very real in PKNP. Resolving them requires addressing greater structural inequalities in Cambodian society.



## 6. Concluding remarks

Community-based natural resources management has been promoted as a way to strengthen conservation and natural resources management while engaging and empowering local communities. However, experiences across India, Nepal, and Cambodia indicate that CBNRM is not always as 'community-based' as it purports to be, with unequal power dynamics resulting in exclusion from and inequality in CBNRM institutions. Nevertheless, CBNRM continues to gain institutional support in underdeveloped countries, demonstrating the need for further analysis of its participatory nature and its social and economic implications.

This thesis thus sought to shed light on how CBNRM is experienced in Cambodia, in the form of community protected area management. This was achieved through a case study of Phnom Kulen National Park, an area where forests are continuously threatened by illegal logging. Building upon new institutional theory and its critiques, this study utilized the concept of institutions, as defined by Ostrom (2005), as well as participation, as defined by Kabeer (1999) and Cornwall (2008), to highlight the defining factors of participation in community protected area management in Phnom Kulen. Moreover, it drew from empirical evidence of gender inequality in collective action to add gender dynamics as a variable warranting further examination in community-based institutions.

Through an analysis of qualitative data comprised primarily of interviews conducted in Phnom Kulen National Park, this thesis revealed how informal rules, resources, including human and social, but also natural and economic resources, influence men's and women's abilities to participate in community protected area management. Among rules and resources, norms, education level, literacy, cognitive schema, and poverty were found to be key determinants of women's participation. Poverty and limited natural resources were found to be determining factors of participation for both genders. Men were found to participate more actively in CPA management than women, either in leadership positions or by joining forest patrols. Nevertheless, the extent of engagement in CPA management was limited among both men and women, due to the limited economic benefits offered directly

or indirectly through the CPAs. These findings serve as a reminder that any approach to biodiversity conservation in rural Cambodia must take into consideration the limitations of community engagement due to poverty.

While these findings reiterate that community-based natural resources management can be a useful tool for conservation, its promise as a vehicle for empowerment rests upon the ability of people to overcome deeply-embedded social norms and its ability to enhance economic opportunities for both men and women. As Cambodia continues to promote CBNRM as an environmental governance mechanism to address the country's natural resources challenges, more attention should be paid to whether these institutions are really delivering benefits to communities, or if they are burdening them with responsibility. Given the lack of data available on community protected areas in Cambodia, especially regarding gender, future research should aim to compare community protected area management with community forestry. More research is also needed on gender dynamics in natural resources management in Cambodia, and how community-based institutions can help alleviate gender inequality.

## 7. References

- Adams, W. M. et al., 2004. Biodiversity Conservation and the Eradication of Poverty. *Science*, 306(5699), pp. 1146-1149.
- Agarwal, B., 2000. Conceptualising environmental collective action: why gender matters. *Cambridge Journal of Economics*, Volume 24, pp. 283-310.
- Agarwal, B., 2001. Participatory Exclusions, Community Forestry, and Gender: An Analysis for South Asia and a Conceptual Framework. *World Development*, 29(10), pp. 1623-1648.
- Agarwal, B., 2009. Gender and forest conservation: The impact of women's participation in community forest governance. *Ecological Economics*, 68(11), pp. 2785-2799.
- Agarwal, B., 2010. Does Women's Proportional Strength Affect their Participation? Governing Local Forests in South Asia. *World Development*, 38(1), pp. 98-112.
- Agarwal, B., 2015. The power of numbers in gender dynamics: illustrations from community forestry groups. *The Journal of Peasant Studies*, 42(1), pp. 1-20.
- Archeology and Development Foundation (2018). *Map of Phnom Kulen National Park*.
- Arnstein, S., 1969. A Ladder Of Citizen Participation. *Journal of the American Institute of Planners*, 35(4), pp. 216-224.
- Bradley, A. et al., 2013. *Gender and REDD+: An Assessment in the Oddar Meanchey Community Forestry REDD+ Site, Cambodia*, Phnom Penh: Pact Cambodia.
- Cascio, A. L. & Beilin, R., 2010. Of biodiversity and boundaries: a case study of community-based natural resource management practice in the Cardamom Mountains, Cambodia. *Environmental Conservation*, 37(3), pp. 347 - 355.

Cleaver, F., 2007. Understanding Agency in Collective Action. *Journal of Human Development*, 8(2), pp. 223-244.

Cornwall, A., 2008. Unpacking 'Participation': models, meanings and practices. *Community Development Journal*, 43(3), p. 269–283.

Creswell, J., 2007. *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks (California): Sage Publications, Inc.

Dressler, W. et al., 2010. From Hope to Crisis and Back Again? A Critical History of the Global CBNRM Narrative. *Environmental Conservation*, 37(01), pp. 5-15.

Dudley, N. & Stolton, S., 2008. *Defining protected areas: an international conference in Almeria, Spain*. Gland, Switzerland, IUCN, pp. 1-220.

Flyvbjerg, B., 2006. Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), pp. 219-245.

Funder, M., 2005. Bias, intimacy and power in qualitative fieldwork strategies. *The Journal of Transdisciplinary Environmental Studies*, 4(1), pp. 1-9.

Gaughan, A. E., Binford, M. W. & Southworth, J., 2009. Tourism, forest conversion, and land transformations in the Angkor basin, Cambodia. *Applied Geography*, 29(2), pp. 212-223.

Global Forest Watch, 2019. *Tree Cover Loss in Cambodia*. [Online] Available at: [www.globalforestwatch.org](http://www.globalforestwatch.org). [Accessed 8 May 2019].

Gregson, S., Zhuwau, T., Anderson, R. M. & Chandiwana, S. K., 1998. Is there evidence for behaviour change in response to AIDS in rural Zimbabwe?. *Social Science & Medicine*, 46(3), pp. 321-330 .

Hammett, D., Twyman, C. & Graham, M., 2014. *Research and Fieldwork in Development*. 1st Edition ed. London: Routledge.

Hardin, G., 1968. The Tragedy of the Commons. *Science*, 162(3859), pp. 1243-1248.

Hayes, B. et al., 2013. *A Biodiversity Assessment of Phnom Kulen National Park, with Recommendations for Management*, Phnom Penh: Ministry of Environment.

Schindele, W. (ed.), Hou, K., Rotha, K. S., Ung, L. & Mao, S., 2004. *Management of Pilot Watershed Areas in Cambodia. Baseline Survey. Part I: Framework for Land and Forest Resources Management in Cambodia Part II: Baseline Survey Siem Reap Pilot Area*, Vientiane: MRC-GTZ Cooperation Programme.

Jayaratne, T. E. & Stewart, A. J., 2014. Quantitative and Qualitative Methods in the Social Sciences: Current Feminist Issues and Practical Strategies. In: A. Jaggar, ed. *Just methods: an interdisciplinary feminist reader*. New York: Paradigm Publishers, pp. 44-57.

Kabeer, N., 1999. Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment. *Development and Change*, Volume 30, pp. 435-464.

Kabeer, N., 2005. Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender & Development*, 13(1 ), pp. 13-24.

Kennedy, E. & Peters, P., 1992. Household food security and child nutrition: the interaction of income and gender of household head. *World Development*, 20(8), pp. 1077-1085.

Kiernan, B., 2003. The Demography of Genocide in Southeast Asia: The Death Tolls in Cambodia, 1975-79, and East Timor, 1975-80. *Critical Asian Studies*, 35(4), pp. 585-597.

Lapniewska, Z., 2016. Reading Elinor Ostrom through a Gender Perspective. *Feminist Economics*, 22(4), pp. 129-151.

Leach, M., Mearns, R., & Scoones, I., 1999. Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management. *World Development*, 27(2), pp. 225-247.

Mahanty, S. et al., 2006. Introduction: Equity in Community-based Resource Management. In: S. Mahanty, et al. eds. *Hanging in the Balance: Equity in Community-Based Natural Resource Management in Asia*. Bangkok: RECOFTC and East-West Center.

Milne, S. & Mahanty, S., 2015. *Conservation and Development in Cambodia: Exploring frontiers of change in nature, state and society*. Abingdon and New York: Routledge.  
Ministry of Environment, 2008. *Protected Areas Law*. Phnom Penh: Royal Government of Cambodia.

Ministry of Environment, 2017. *National Protected Area Strategic Management Plan 2017-2031*. Phnom Penh: Royal Government of Cambodia.

Ministry of Environment, 2018. *Cambodia Forest Cover: 2016*. Phnom Penh: Royal Government of Cambodia.

Motzke, I., Wanger, C., Zanre, E., & Tschardtke, T., 2012. Socio-economic Context of Forest Biodiversity Use along a Town–Forest Gradient in Cambodia. *The Raffles Bulletin of Zoology*, 25, pp. 29–45.

Nathan I. & Pasgaard, M., 2017. Is REDD+ effective, efficient and equitable? Learning from a REDD+ project in Northern Cambodia. *Geoforum*, 83(2016), pp. 26-38.

National Aeronautics and Space Administration [NASA], 2014. *NASA Finds Good News on Forests and Carbon Dioxide*. [Online] Available at: <https://www.nasa.gov/jpl/nasa-finds-good-news-on-forests-and-carbon-dioxide> [Accessed May 2019].

National Institute of Statistics (NIS), 2018. *Cambodia Socio-Economic Survey 2017*, Phnom Penh: Royal Government of Cambodia.

Nguon, P. & Chevance, J. B., 2017. *Phnom Kulen National Park: Ethnography and Socio-Economic Assessment*, Phnom Penh: United Nations Development Programme Cambodia.

Oakerson, R., 1992. Analyzing the commons: a framework. In: D. Bromley, ed. *Making the Commons Work: theory, practice and policy*. San Francisco: ISC Press, pp. 41-59.

Oakley, P., 1995. People's participation in development projects: a critical review of current theory and practice. *INTRAC Occasional Papers Series, 7*, Oxford: INTRAC.

Olson, M., 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge: Harvard University Press.

Ostrom, E., 1990. *Governing the commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

Ostrom, E., 1991. Rational Choice Theory and Institutional Analysis: Toward Complementarity. *American Political Science Review*, 85 (1), pp. 237– 43.

Ostrom, E., 2005. *Understanding Institutional Diversity*. Princeton: Princeton University Press.

Pandolfelli, L., Meinzen-Dick, R., & Dohrn, S., 2007. Gender and collective action: A conceptual framework for analysis. *CAPRI Working Papers, 64*, Washington, DC: International Food Policy Research Institute

Pasgaard, M., & Chea, L., 2013. Double inequity? The social dimensions of deforestation and forest protection in local communities in Northern Cambodia. *ASEAS - Austrian Journal of South-East Asian Studies*, 6(2), pp. 330 -355.

Penny, D., Chevance, J.-B., Tang, D. & De Greef, S., 2014. The Environmental Impact of Cambodia's Ancient City of Mahendraparvata (Phnom Kulen). *PLoS One*, 9(1), p. p. e84252.

Pretty, J., 1995. Participatory learning for sustainable agriculture. *World Development*, 23 (8), pp. 1247–1263.

Resurreccion, B., 2006. Rules, Roles and Rights: Gender, Participation and Community Fisheries Management in Cambodia's Tonle Sap Region. *International Journal of Water Resources Development*, 22(3), pp. 433-447.

Rocheleau, D., Thomas-Slayter, B. & Wangari,, E., 1996. *Feminist Political Ecology: Global Issues and Local Experiences*. London: Routledge.

Rose, G. 1997. Situating Knowledges: Positionality, Reflexivity and Other Tactics. *Progress in Human Geography*, 21(3), pp. 305-320.

Saito-Jensen, M., Nathan, I., and Treue, T., 2010. Beyond elite capture? Community-based natural resource management and power in Mohammed Nagar village, Andhra Pradesh, India. *Environmental Conservation*, 37(3), pp. 327-335.

San, S., 2006. Indicating Success: Evaluation of Community Protected Areas in Cambodia. In: S. Mahanty, et al. eds. *Hanging in the Balance: Equity in Community-Based Natural Resource Management in Asia*. Bangkok: RECOFTC and East-West Center.



Singh, M. et al., 2018. Evaluating the ability of community-protected forests in Cambodia to prevent deforestation and degradation using temporal remote sensing data. *Ecology and Evolution*, 8(20), p. 10175–10191.

Tracy, S., 2010. Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative inquiry*, 16(10), pp. 837-851.

United Nations, 2018. *Least Developed Country Category: Cambodia Profile*. [Online] Available at: <https://www.un.org/development/desa/dpad/least-developed-country-category-cambodia.html> [Accessed 14 May 2019].

Uphoff, N., 1991. A Field Methodology for Participatory Self-Evaluation. *Community Development Journal*, 26(4), pp. 271-285.

White, S., 1996. Depoliticising development: The uses and abuses of participation. *Development in Practice*, 6(1), pp. 6-15.

Wichterich, C. 2015. Contesting green growth, connecting care, commons and enough. In: W. Harcourt and I. Nelson, ed., *Practising Feminist Political Ecologies: Moving Beyond the 'Green Economy'*. London: Zed Books.

WWF, 2018. Living Planet Report - 2018: Aiming Higher. Grooten, M. and Almond, R.E.A. (Eds). Gland: WWF.

## Appendix I: List of interview respondents

TARGET GROUP								
Village	#	Pseudonym	Role	Sex	HoH	Age	Education	Income
Thmor Chhrounh	1	Chea	Village chief	M	Yes	68	None	Middle
	2	Heng	Community member	M	Yes	85	None	Middle
	3	Pich	Community member /APSARA conservation guard	M	Yes	70	Grade 7	Middle
Ta Penh	4	Vanna	Community member	M	Yes	74	None	Low
	5	Sophea	Community member	F	No	69	None	Low
	6	Sopheap	Community member/wife of the former commune deputy chief	F	No	68	None	Middle
Phum Thmey	7	Sovanna	Community member	F	No	58	None	Middle
	8	Kolab	Community member	F	No	37	Grade 1	Middle
Popel	9	Chan	CPA chief	M	Yes	35	None	N/A
	10	Maly	Deputy Chief of CPA	F	No	32	None	Low
	11	Bophea	CPA member	F	No	26	Grade 10	Low
	12	Sann	Village chief/CPA member	M	Yes		None	
Sangke Lak	13	Nimol	Village chief/CPA chief	M	Yes	61	Grade 9 (4 today)	Middle
	14	Sokha	Community member	F	No	40	None	Low
	15	Sita	Community member	F	Yes	39	None	Low
	16	Mony	Community member	F	No	38	None	Low
	17	Sothy	Community member	F	No	63	None	Middle

Ta Han	18	Prak	Village chief	M	No	47	Grade 4	Middle
	19	Lang	Community member	F	No	74	None	Low

<b>EXPERT INTERVIEWS</b>			
<b>Type</b>	<b>Organization</b>	<b>Interview method</b>	<b>Month, Day, Year</b>
Local NGO	Archaeology and Development Foundation	Phone	January 2019
National NGO	Mlup Baitong	In-person	January 2019
UN Agency	United Nations Development Programme	In-person	January 2019
National government	Royal Government of Cambodia, Ministry of Environment, Department of Local Community	In-person	January 2019

## Appendix II: Agreement of informed consent

### **Agreement of informed consent**

I, \_\_\_\_\_, hereby consent to be a participant in Ms. Katherine Koerper's research on community-based natural resources management in Cambodia.

I have been informed of the purpose and conditions of this research. I am aware that my participation is completely voluntary and that I can withdraw at any time.

I am aware that my responses will be used for the purpose of academic research and that my name will remain anonymous in the published thesis.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Location: \_\_\_\_\_

## Appendix III: Interview guides

The following three guides were used for interviews with the target group, in Phnom Kulen, and with experts in natural resources management, environmental governance, and community development in Cambodia. The interviews did not necessarily follow the progression of these questions, nor were all of these questions asked during the interviews.

### Semi-structured interview guide: communities in Phnom Kulen

**Geographic Location:**

**Pseudonym/identifier:**

**Interview date:**

**Place of interview:**

#### Introduction

1. Thank the participant for the interview and introduce myself
2. Explain the objectives and expectations of the interview
3. Outline the amount of time the interview will take (45 minutes - 1 hour maximum)
4. Obtain the participant's informed verbal consent to record the interview and take pictures

Topic	Questions
<b>Demographics</b>	<ul style="list-style-type: none"> <li>• Village:</li> <li>• Sex:</li> <li>• Age:</li> <li>• Role in the community:</li> <li>• Education level (by grade):</li> <li>• Head of household:    Yes    No</li> <li>• Income level:    Low    Middle    High</li> </ul>
<b>Personal history</b>	<ul style="list-style-type: none"> <li>• How many people are in your household?</li> <li>• How long have you lived in this community?</li> <li>• How has Phnom Kulen changed since you were a child? (if applicable)</li> <li>• Did you migrate here? If so, why?</li> <li>• How did you acquire your land?</li> </ul>

	<ul style="list-style-type: none"> <li>• Describe a typical day in your life.</li> </ul>
<p><b>Labor and income</b></p>	<ul style="list-style-type: none"> <li>• How does your family earn money?</li> <li>• Approximately how much do you earn each month? <ul style="list-style-type: none"> <li>○ Is this enough to sustain you and/or your household?</li> <li>○ Is this regular throughout the year?</li> </ul> </li> <li>• Do you depend on income from natural resources? If so, which resources? <ul style="list-style-type: none"> <li>○ Approximately how much do you earn per month from these resources?</li> </ul> </li> <li>• Who is responsible for housework (i.e. cooking and cleaning) and childcare? <ul style="list-style-type: none"> <li>○ How much time is spent on these activities?</li> </ul> </li> </ul>
<p><b>Awareness of and access to natural resources</b></p>	<ul style="list-style-type: none"> <li>• Which of the following resources/activities does your family depend on? <ul style="list-style-type: none"> <li>○ Timber</li> <li>○ Wood fuel</li> <li>○ Non-timber forest products (e.g. resin, honey, mushrooms)</li> <li>○ Medicinal plants</li> <li>○ Cash crops (cashew nuts, rice)</li> <li>○ Eco-tourism</li> </ul> </li> <li>• Who is responsible for collecting these resources?</li> <li>• What kind of tools or resources are needed to collect them?</li> <li>• Which do you use for household use?</li> <li>• Which do you sell for income (if any)?</li> <li>• Do you experience challenges in accessing them? If so, what kind?</li> <li>• What kind of benefits do you receive from them (monetary or non-monetary)?</li> </ul>

<b>Household decision-making for natural resources</b>	<ul style="list-style-type: none"> <li>• Who in your household makes decisions about natural resources? <ul style="list-style-type: none"> <li>○ Do you discuss it together with your husband/wife?</li> </ul> </li> <li>• Do you feel like you have decision-making power over how natural resources are used?</li> </ul>
<b>Community decision-making for natural resources</b>	<ul style="list-style-type: none"> <li>• How does the community decide how natural resources should be used? Are there community meetings where these decisions are made? <ul style="list-style-type: none"> <li>○ When and where are they held?</li> <li>○ Do you attend these meetings? Why or why not?</li> <li>○ If you attend, do you participate? Why or why not?</li> <li>○ What might make it easier for you to participate in these meetings?</li> <li>○ Are women and men equally represented at the meetings? Why or why not?</li> <li>○ Who makes decisions at these meetings?</li> </ul> </li> </ul>
<b>Gender and empowerment</b>	<ul style="list-style-type: none"> <li>• Have you ever felt like you could make important decisions about your life? Describe that moment.</li> <li>• Do you think men and women have the same opportunities in your community? Why or why not?</li> <li>• Do men and women have certain responsibilities? What are they?</li> <li>• What challenges do women in the community face?</li> <li>• Are there any women in leadership roles in the community? Why or why not?</li> </ul>
	<ul style="list-style-type: none"> <li>• Have you noticed changes in the environment in recent years (e.g. depleted natural resources)?</li> </ul>

<p><b>Environment and community protected areas</b></p>	<ul style="list-style-type: none"> <li>• Of these changes, which is the most significant and why?</li> <li>• Are you aware of the boundaries of the Community Protected Area(s) (CPA)? Do you collect resources in the CPA?</li> <li>• Are you aware of the rules of the CPAs?</li> <li>• Are you a member of a CPA? Why or why not? <ul style="list-style-type: none"> <li>○ What benefits does membership bring?</li> </ul> </li> <li>• Have you noticed any changes since the CPAs were established? <ul style="list-style-type: none"> <li>○ Has your income changed (e.g. did it increase/decrease, become more/less stable)?</li> </ul> </li> <li>• What do you think are some of the main challenges for the CPAs?</li> </ul>
<p><b>Needs and aspirations</b></p>	<ul style="list-style-type: none"> <li>• How could you benefit more from the natural resources you collect (e.g. better market access, more resources)?</li> <li>• What opportunities do you see for your future here? Are there other opportunities you would like to pursue? (e.g. own your own business, migration, tourism, etc.)?</li> <li>• Do you see different opportunities for men and women?</li> <li>• What kind of support does the community need to improve lives while protecting the environment?</li> </ul>



**Semi-structured interview guide: NGO/INGO stakeholders**

*Descriptive information*

<b>Name of organization</b>	<b>Representative of organization</b>	<b>Position</b>	<b>Years working at organization</b>	<b>Years working in Cambodia</b>

1. How long has your organization been working with natural resources management in Cambodia?
  
2. To the best of your knowledge, how has natural resources management in Cambodia changed in that time?
  
3. What are the biggest threats to natural resources management in Cambodia?
  
4. (If applicable) What type of consultation process does your organization employ when initiating a program to enhance local communities' rights and access to natural resources?
  - a. Do communities typically approach the organization, or vice versa?
  
5. Is there enough institutional support for communities to engage in CBNRM?
  - a. If not, what is lacking?
  
6. How does your organization address gender equity in your NRM programs (if at all)?
  
7. How does your organization interact and collaborate with the government?

## **Semi-structure interview guide: the Royal Government of Cambodia Ministry of Environment**

1. Can you tell me about your work with the Department of Local Community at the Ministry of Environment?
2. How does the new Environmental Code address communities dependent on natural resources? What impacts might it have on them?
3. What efforts have been made to mainstream gender into the Environmental Code or MoE's work in general? Does the MoE collaborate with the Ministry of Women's Affairs?
4. Do you consider community-based ecotourism a viable approach to conservation for communities? Why or why not?
5. What are some of the strengths of community protected areas and community forests in natural resources management? What benefits do they bring to communities and the environment?
6. What are the biggest challenges for collaborative management in Cambodia today?
7. What kind of support is needed to adhere to the provisions outlined in the Environmental Code?

# Appendix IV: Map of Phnom Kulen National Park

