CHAPTER II

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

This study focuses on making space and access to fishery resources: prospects for local management in Stung Treng province, northeast Cambodia. To understand this complexity, I review the relevant approaches to the studies of resources management. A conceptual framework developed out of the strength of these approaches and used to guide in understanding the complexity of fishery issues in Stung Treng province.

This chapter consists of four parts. First, I review major theories used in studies of fishery resources and then a number of studies discussing people and environment relationships and human adaptability in natural resources management under conditions of resettlement and the changes in people's way of life as a result of the ecological experimentation going on around them. In addition, previous studies on the political ecology approach and its critiques are also reviewed in this section with the emergence of the new paradigm of liberation ecology approach. Second, I propose three concepts (space, access and discourse), as the approach for my study of fishery management in Stung Treng. Third, I review fishery management in general which consists of two parts: the studies of fish management in general in Cambodia and then I look at specifically at Stung Treng to see who and how the study in the province has been carried out. After that the last part will propose the conceptual framework which is based on the regional political ecology approach.

2.1 The Political Ecology Framework: Adaptation, Access and Conflict in Fishery Resource Management

Many natural resource managers have used the tragedy of the commons (Hardin 1968), and the prisoner's dilemma (Johnston 1989 cited in Bryant and Bailey 1997) models to justify centralized natural resource management. Natural resource management theory based on assumption that individuals do not generally act for the good of the whole "common" interest have resulted in a perceived need for impartial agent of authority with national or collective, rather than personal or local interests in heart. Using theoritical arguments based in part on Prisoner's Dilemma and tragedy

of the commons, various scholars have argued that there is a need for an omnipotent state to tackle the world's growing social and environmental crises.

However, these concepts have been challenged by many anthropologists and human ecologists who argue that the resource has the characteristics that is valued by the people living near them. Some of those attributes also affect whether individuals can defend private property or whether they needed to develop rules of access and use to regulate how resources will be owned by an entire communities. In practice, things are not as simple as they seem in the prototypical model. Human motivation is complex, the rules governing real commons do not always permit free access to everyone, and the resource systems themselves have dynamics that influence human use (Dietz et al 2002:1).

Berkes (1989) suggests that the concept of tragedy of the commons over emphasizes competition while underestimates the cooperation in ecological relationships. This cooperation can involve with three mechanism: kinship selection, group selection and reciprocity in which they can act in concert when human population live in territorial, extended kin groups. These groups of people offer the most promising case material on which to base a theory of cooperation in human ecology.

For instance, studying fishery conflict in Tonle Sap Great Lake, Piseth shows that fish resource management system tends to be rather complicated, when compared with other types of resource management. The management of fish resources is concerned with the management of access of fishers, equipments, places for fish feeding and spawning, and fish migration. Fish migrate from one place to another according to specific time and space. Therefore, fishers who are skilled and experienced can catch more fish. In this sense, the management of fish resources requires knowledge about the behavior of different kinds of fish in different ecological niches (Piseth 2001).

His study also suggests that fishers do not have only knowledge about fish, but they also know how to adapt to the ecology of the area. Their place of settlement, for example, is along the edge of the river or lake where the water level is likely to rise and recede according to varying seasons. In this respect, their floating as well as high-stilted houses in Tonle Sap or their seasonal settlement pattern represents their

adaptation to the surrounding environment. In practice, the overall human adaptation to particular environments may involve combining these different basic types of modification. The cycle of seasonal migrations determines the settlement pattern, and the socio-political role of segmentary lineage, and social relations also play roles (Piseth 2001:15).

However, the outcome of Piseth's studies has clearly pointed out that a human ecology approach to analysis *per se* is focusing on solely the harmony and the relationship between humans and their environment. The shortcoming of the human ecology approach into the study through which is offered greater possibility for better understanding of the real picture and the root of the conflict and the power relations amongst key stakeholders.

Kaneungnit (2001) uses the concept of enclosure[1] on the common in Lao PDR shows that the inland fisheries is very crucial to people's livelihood as the main accessible of protein in the diet. The ecological context of fisheries in Lao PDR is complex and diverse which can be categorized into five types of water bodies: the Mekong River, tributaries, streams, back swamps, and rice field. Fish themselves are not confined to fixed boundaries as they are considered as fugitive resources.

Based on this complex ecology, the study demonstrates that fishing activities also are not fixed according to the territory as well as ecological conditions in the areas. As for the big rivers, the management is loose as rivers are shared by several different communities and different administrative sectors from villages to country level. The small water bodies are managed closely by communities, which involve collective action with traditional practices and in some places spiritual beliefs. Thus, access to fishing in these water bodies is different depending on the management of each community, the ecological context, and also the social relations within the communities (Kaneungnit 2001:3).

King and Wilder (2003) in their review on the fishing economy in Malay community show that an important feature of a fishing economy is that it usually requires communities to enter into some form of market exchange to obtain other foodstuffs, particularly rice and vegetables, which they do not produce themselves. In

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[1] According to her study the term enclosure is referred to the process of large-scale policy is imposed on an individual or communal resource to alter the tenure to private property holdings. This kind of situation is happening more and more in societies under the transition to market economy development.

the village that they review show that about one-third of households had a mixed economy and owned rice lands, some of which were leased to agriculturalist, agriculturalist were also hired to do the ploughing, and most fishing household were involved in a range of other activities, either in the agricultural sector or in various forms of laboring and handicraft production.

The review also indicates different gender division of labor of peasant's agriculture and fishing. They show that men worked at sea, while women kept house, reared children, and undertake onshore activities like making foodstuffs, clothes and nets, gutting fish and operating as small-scale vendors. In fishing economies[2], there was more scope for day-to-day cooperation in ' moderately large groups', which was in turn associated with ' complex systems of distributing the earnings', and finally higher risks attached to investment in boats and gear because they were 'more reliable to sudden damage and loss' and the amount of capital tied up in equipment (ibid 2003).

The review also identifies certain fish dealers or middlemen as well as entrepreneurs in net manufacturing whose level of ownership and disposal of capital were greater than most ordinary fishers. Fishing methods relied on locally made, shallow, undocked sailing craft and, depending on locations and types of fish, seine or hauling nets, drift-nets, gillnets and lift-nets. Other equipment such as curing rays and baskets were made locally, usually by women (King and Wilder 2003).

The review concludes that fishing communities in Malay readily enter into exchange relationships because the specialized production of fish requires them to secure supplies of other foodstuffs such as rice from land-based communities. Nevertheless, in some isolated cases fishing can remain 'largely unmediated by money', without middlemen and with the continued use of traditional equipments which form as quiet unique way of life. The incorporation of communities into wider economic and political systems have had dramatic consequences for human-environment relations so much so that human ecologist have increasingly turned to examining the environmental processes which have need occasioned by population-

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[2] King and Wilder who reviewd the studies by Firth, define a peasant economy as one with relatively simple, non-mechanical technology, small-scale production unites, and a substantial production for subsistence as well as for the market. He also argues that there are elements of this economy which confirm to principles recognizable in capitalist or market-based economies, given that there is some attention to market-exchange, but there are other elements which do not.

growth, technological innovation, the expansion of markets and political changes.

A recent study on sustainable livelihood[3] (Marschke 2003) in Cambodian rural fishing communities it has been argued that a combination of livelihood resources enables households to develop and to follow different livelihood strategies (a livelihood strategy is a plan or technique to achieve a means of living), each resulting in different outcomes. For instance, many fishing households engage in occupational multiplicity. Fishing activities feature alongside many other contributions to family well-being such as nurturing social networks that can enable livelihood diversity to be secured and sustained.

The resilience of any complex adaptive system is embodied in the diversity of its components and people or household's capacity for adaptive change. Berkes (2002) suggests that the resilience thinking help researchers to look beyond institutional forms, and ask instead questions regarding the adaptive capacity of social groups and their institutions to deal with stresses as a result of social, political, and environmental changes. Adaptive management and resilience have been used to study the interactions of regional, national, and state-level agencies and cross-scale interactions involving citizen participation in regional environmental management. More work is needed on how societies and institutions developed ecological knowledge to deal with environmental change and, in return, how they can act to shape change.

Thus, an understanding of each system within the larger Cambodian system might help to capture the complexity and diversity found in rural livelihoods. For example, institutional differences might affect livelihood dynamics and household resilience such as fisheries policy that allows for open access to divide much part into the concession areas (Marschke 2003). Marschke also suggests that it may be useful to look at adaptive livelihoods within the framework of complex systems theory and, in particular, the concept of resilience. As an organizational concept, the resilience enables a greater understanding of adaptive change (Marschke 2003).

The studies I have mentioned above contribute to an understanding of the relationship between humans and the environment in which they live. Human beings

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[3] The livelihood includes capability, assets both material and social resources and activities pursued while making a living.

have developed techniques to cope with changes in the environment. For example, the seasonal or boat-family fishers in Stung Treng-Mekong of Cambodia move their settlement up and down the banks of the river or tributaries according to water levels, seasonality and the pattern of fish migration. Fishers use variety of fishing gears and techniques which are drawn from their experience, experiment, relatives in adapting to the ecology of their setting.

In this sense, they learn and experiment with any of a virtually unlimited set of social and cultural conventions and this must ultimately be in terms of the enhancement of biological survival and the ability to transmit genetic material. Thus the strong point of human ecology is talking the harmony and the adaptation of people with the surrounding environment and ecological setting. However, this approach, as described above, is not capable of explaining the complexity and dynamic of conflict in natural resources management. This approach focuses solely on the human dimension of ecology, which does not fit with the current situation in most Third World Countries. The model is based on the assumption that the state claims ownership of all natural resources. That is why Bryant and Bailey (1997) propose the new approach called 'political ecology' as the conceptual framework for understanding the state rules and different actors in resources management.

Political ecology has been referred to as a method of analysis, rather than a unified scientific discipline or sub-discipline, which is usually characterized by a set of related ideas, premises, and theories. A number of political ecology practitioners have tried to come up with definitions leading to quite a diverse selection of meanings.

Adams (2001) views that this new field of political ecology has begun to challenge established approaches to understand the links between human action and environmental change. The field of political ecology is broad and intellectually eclectic in deed rather sprawling. Bryant and Bailey (1997) identify two phases development of political ecology approach. The first, from mid-1970s to the mid-1980s, the approach built on neo-Marxism, and emphasized structural explanations of human-environment relations. Development in this period was slow and piecemeal, partly because of the lack of interest by Marxist scholars in the environment, and partly because of the radical aversion to the neo-Malthusian explanations of environmental change. Nevertheless, in the 1980s, critiques of neo-Malthusianism

emphasizing the political economy of the environment made a major contribution to the development of political ecology. The second period in the development of political ecology, from the later 1980s, has been more complex, with a greater focus on the role of grassroots actors and social movement; it has seen in to greater awareness of discursive dimensions of environment-society interaction.

Following his conceptual framework, Bryant (1992) provides an integrated understanding of how environmental and political forces interact to affect social and environmental change in three critical areas, namely: the context of environmental changes, conflict over access, and the political ramifications of environmental change. According to him, the context of environmental change should consider the state policies, inter-state relations and global capitalism. This change reflects the growing impact on natural and transnational forces on the environment, which follows increased political and economic interdependence.

The conflict over access should emphasize the specific struggle for people's livelihood. Especially, both historical and contemporary dynamics of conflict of how powerless people fight to protect the environmental foundation of their livelihood from exploitation by powerful people. The political ramification of environmental change should address the issues of socio-economic impact and political process which means the analysis should focus on how environmental change affects diverse socio-economic groups, concentrating on environmental change on socio-economic and political relationships (Bryant and Bailey 1997). Therefore, the political ecologist has focused largely on the uneven distribution of access to and control over resources on the basis of class and ethnicity.

In his article on the Emergence of Institution for the Common, McCay (2002) suggests that the political ecology can be understood as calling for greater emphasis on the local politics concerning common-pool resources and the environment. In relation to conservation and development, political ecology focus on multiple interests and actors within communities, on how these actors influence decision-making, and on the internal and external institutions that shape the decision-making process.

McCay (2002: 380) proposes that in the common-pool resource studies, political ecology has been used to address with three points. First, the increased focus on the workings of powers as well as differentiation by gender, age, class or caste,

ethnicity, and other factors within common-pool resource-using community. Second, the greater attention to the power dynamics among communities and between them and the institutions and organizations within which they are embedded or to which they are linked, or taking meso- and macro-scale perspective to understand what is happening at the local level. Third, the political ecology approach is more sensitive to the exercise of power in the production of knowledge over common-pool resources. A political ecology approach includes critical reflection and research on the practice of common-pool resource research and analysis itself.

De Jong, Luck-Po and Ken-ichi (2003) have defined political ecology with two features. First, it is a collective name for all intellectual efforts to critically analyze the problems of natural resource appropriation and political economic origins of resource degradation. Political ecology is concerned with the political dimensions of natural resource use, and the subtleties of those politics. This definition implies that in some instances the political shapes the ecological, but it is equally relevant to state that in turn the political is being shaped by nature's feedback. Thus, political ecology looks for conflict in resource appropriation, but assume conflict to arise when the values of resources change. This means that conflict cannot be viewed as anomalous but as an increasingly integral dimension of human-nature interactions.

A second feature of political ecology, probably less clearly emphasized in many definitions, is the importance of identifying power relations. Issues related to power relations, of course, integral to the political economy approach with its roots in Marxian theory, as it tries to relate economic power of actors, and agencies at different administrative levels. Such analyses are grounded in value framework, which Scott (1976) calls the moral economy in which there is a concern to point out how the distribution of power shapes the unequal distributions of rights and responsibilities. Problems of distribution are entailed by structure of legitimacy, where the deprivation of environmental goods and benefits from those who are less powerful or less well-connected politically is accepted and interpreted as "natural"(De Jong, Luck-Po and Ken-ichi 2003).

In the book *Liberation Ecologies*, Peet and Watts (1996) explored the engagement between political ecology and post-structuralism, emphasizing the importance of the politics of meaning and the construction of knowledge (see also Escobar 1996). They argue that political ecology is moving in respond to the shifts in

social science theory towards post-structuralism to understand multilevel of environmental problems. While their struggles that emerge may be material struggle about survival or livelihoods, they are also struggles about the ways in which people speak about and organize understandings of human and non-human nature.

They propose a new term to embrace this new openness to debates about imagination and discourse, " liberation ecology". Therefore, the new paradigm of Liberation Ecology highlights new theoretical engagements between political ecology and post-structuralism on the one hand, and a practical political engagement with new movement, organization, and institution of civil society challenging conventional notion of development, politics, democracy, and sustainability on the other hand (Peet and Watts 1996).

In brief, even though the political ecology approach has been developed and evolved from time to time by different scholars, there are some common factors among these scholars who use this approach. It is commonly found that the political ecology approach is a way of understanding, explaining, and critiquing contemporary resource problems. The strength of political ecology is the possibility of critique, which is the first step in devising appropriate solution. With regard to solutions, neither a fully local nor a globally imposed paradigm is appropriate. As the effects of degradation proceed rapidly, a multitude of actions will need to be devised, each one flexible to the problems its addresses and sensitive to the local fishery histories upon which it impacts.

Based on what I have reviewed above, I understand that both approaches (human ecology and political ecology) have their own critiques. Each approach inadequately explains the conflicts in fisheries in Cambodia by itself alone and it needs an additional approach. Therefore, I combine these two approaches together in order to understand and explain the conflict in gaining access to fish in Cambodia.

2.2 The Concepts adopted to Investigate the Fishery Issues in the Case Study of Stung Treng, Cambodia

In order to understand the complexity of fish resource management in Stung Treng province, I would like to use three main concepts based on this framework of regional political ecology. These concepts are:

First, the concept of access as social relations which will be used to -

understand the effective command over alternative commodity bundles that derive from a person's endowments. The concept of access facilitates grounded analyses of who actually benefits from things and through what processes they are able to do so. Access can be explored in the range of powers (embodied in and exercised through various mechanisms, processes, and social relations) that affect people's ability to benefit from resources. These power constitute the material; cultural and political-economic strands within the ' bundles" and " webs" of power that configure resource access. Different people and institutions hold and can draw on different " bundles of powers" located and constituted within " webs of powers" made up of these strands (Ribot and Peluso 2003).

Second, the concept of space was used to understand the interaction of people in the society. Space has been interpreted differently form different people. In common sense, it is seen as the process of territorialization, social interaction and contestation, and social memory, especially it help me to understand how local fishers create space in gaining access to fish resource. This idea is strongly derived from what Lefebvre (1974) calls the third space. However under this process, I am able to understand how people and states, middlemen or other actors make or construct their space or social space in gaining access to fish resource.

And third is the concept of discourse analysis. In practice, discourse is seen as the strategies to articulate or legitimize the claim over property, that is discourse is one way of creating space for action of reconstructing reality in such a way that people can be moved to act. Thus, stories are a vehicle for transmitting and making accessible a framework of meanings. A story and the discourse it bears reminds people of what they deserve and of their ability to act. Using this concept will help me to understand the system of representation and contested meaning and access over resource use. Thus, the concept will help to investigate how different actors tell their story or how they articulate their claim in order to legitimize their action in resource utilization and management. This concept also helps to study how knowledge of resource management has come into being.

2.2.1 The Concept of Access in Resource Management

The term access, by definition, refers to the ability to benefit from things-including material objects, person, institutions and symbols. Therefore, access brings

attention to a wider range of social relationships that can constrain or enable people to benefits from resources (Ribot and Peluso 2003). However, in this section, I would like to propose two kinds of access: (a) Access as seen through power relations, and (2) access as seen through social, patron-client relations and then I will look at how access as seen under the framework of political economy.

a) Access Through Power Relations

In Cambodia, throughout the process of transitional context of the late 1980s and early 1990s, the natural resource revenues were contested as individual actors maneuvered to improve their position in an unstable political environment characterized by a breakdown of law, institutions and even customary rules of social behavior. The survival strategies of individual actors, rather than any ideal economic or legal rationale, shaped the commoditification of resources such as fisheries (Le billon 2000).

In common property resources such as fishery, access has spawned conflict with the inside sectors and the different actors seeking access to this resource. In addition, there are serious pressures and externalities from other economic sectors that impinge on the resource base and its flow of products. Degen et al (2000) explained that the use of illegal fishing gear and other stock damaging practices, the struggle over assignment rights and resource entitlements, the absence of efficient law enforcement and the consequent use of privatized enforcement, and violence characterize the internal tensions of fisheries.

This issue is similar to what Bryant (1992), and Bryant and Bailey (1997) have described that most of the state policies are not developed in a political and economic vacuum. Rather, they result from struggle between competing actors seeking to influence policy formulation involving government departments and agencies, national and transnational corporations, Non Governmental Organizations (NGOs), multiple agencies and foreign governments. The challenge is to identify the different and often conflicting pressures on policy-makers in order to understand a particular policy outcome.

Bryant and Bailey (1997) further argue that if the state is a " theatre" in which resources, property rights, and authorities are struggled over, then state policies embody that struggle, often facilitating the interest of powerful economic elites, and

inculcating social unrest and ecological degradation. State policies also promote non-economic objectives, and national security in which they simply reflect a desire on the part of political elites to assert control over individuals and groups.

The recent studies by many donors' countries and International Development Agencies have suggested that, Cambodia should adopt the model of good governance[4], which is comprised of four elements: accountability, transparency, predictability, and participation, in order to develop their country (Kato et al 2000).

In order to satisfy donors, the government of Cambodia adopted a 'public transcript'[5] of reconstruction, largely dictated by donors' experts (Scott 1990). These donor countries have proposed idealized economic models in which resources are governed by right rather than access: that is, by rules agreed by society through laws and custom.

Le billon (2000) has criticized this model as the weakness in power delegation from the state to the local people and the associated private firms in the allocation of resources. This unequal power relation has determined access to the resource rather than rights, which is dangerous and gives legitimacy only to the state actors which serve personal agendas rather than societal goals. He finally suggests that this ideal model (developed by development agencies) should first address the reality of unequal power relations in determining access and definition of rights. It would therefore be better to adopt a model strengthening direct community access to fisheries rather than leave the task of resource control used for societal goals. In this situation, powerful individuals continue to protect their personal interest, but this alternative strategy will at least offer more access and protection for the powerless while the process by which a functioning democracy will emerge.

Leach et al (1997) have proposed the theory of entitlements to study the person's endowments which can be seen to the "sets of benefits" derived from environmental goods and services over which people have legitimated effective -

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[4] Good governance is defined as the manner in which power is exercised in the management of a country's economic and social resources for development. The state also exercise powers based on the Rule of Law, which are therefore predictable to the public and promote people's participation in development process and policy making.

[5] Public here refers to action that is openly avowed to the other party in the power relationship, and transcript is used almost in its juridical sense of a complete record of what was said. This complete record, however, would also include non speech acts such as gestures and expressions (Scott 1990:2).

command which refers to a space of functioning that defines a person's state of being.

In this sense, the alternative set of utilities that comprise environmental entitlements[6] may include the direct use in the form of commodities, such as food, water and other common resources; the market value of such resources, or of the right to them, and the utilities derived from environment.

Watts (2000) treats the formation of institution as forms of access which are determined by the "rule of game" and the habituated and regularized " rule-in-use" which is maintained by human practice and investment performed over time. He further argues that institutions are necessarily about shared meanings (often contested, often taken for granted) through which person habituate themselves to the natural world. They are forms of knowledge and power which imply forms of governance as a mean by which social interaction (around resource extraction or conservation) is structured and brought to closure. Governance highlights mechanisms by which participation, and exercise of power and authority, is secured. It signals not to share meanings *per se* so much as the way that power is exercised, how a person participates in that exercise, and how accountable are representative that process is.

However, what I have described above is to show how access to resources are determined by power relations and institutional arrangement. The form of access will be seen as the social relations in which I will discuss in the next section.

b) Access Through Social and Patron-Client Relations

By social relations, Piseth has defined as the various forms of relationships which individual fishers establish with other fishers or with other individuals with power and authority. It was observed that power rests in the hand of government officials, politicians, and business people. In addition, class alliances within bureaucracy are not as clear-cut as some would have believed. However, this type of relation can be called patron-client (Piseth 2001:24).

Hague, Harrop and Breslin (1998) define patron-client relationships as the informal hierarchies fuelled by exchanges between a high-status-patron' and some (often many)-client' of lower status. The colloquial phrase big man and small boy -

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[6] The central difference between endowment and entitlements is that endowments are the rights and resources social actors have in principle, while the entitlements derived from them are what social actors actually get in practice.

relationships convey the nature of the interaction. Lacking resources of their own, clients gather around their patron for protection and security. Political patrons control the votes of their clients and persuade them to attend meetings, join organizations or simply follow their patron around in a differential manner. Patrons can be landlords, employers, political entrepreneurs or most often ethnic leaders.

Participation through patronage is a device which links the elites and masses, center and periphery, in unequal and diverse societies. Patronage networks act as political glue, binding the 'highest of the high' with the lowest of the low' through faction membership. Such networks transcend, without nullifying, inequalities of wealth, status and power. Poverty means the poor are vulnerable and need protection; inequality means the rich have the resources to provide it in exchange for political allegiance (Hague, Harrop and Breslin 1998: 86-88).

In the Cambodian context, by looking on the state policy in resource management, Piseth (2001) illustrates that this policy has created a number of actors who have functions as instruments of social control, which produces both positive and negative impacts on both sides including the effectiveness and impacts on local people. These actors include government officials, political and influential persons, middlemen, local elites, and grassroots actors who exist at different levels. The interpretations during implementation of the policy are also different according to specific interests. These people use different forms of social relations and individual tactics in gaining control over management and access to fish resources.

Agrawal and Gibson (2001) also argue that institution promotes certain expectations while contrast with uncertain political interaction among unequally placed actors, and unpredictable processes in which performances of social actor do not follow any necessary script. When actors do not share the conservation of resources and are unequally powerful, it is a likely result from two significant reasons. On the one hand, they denote some of the power that defines the interactions among actors who created the institutions; on the other hand, they also help to structure the interactions that take place around resources.

However, the institutions that contain various rights are always shaped and constituted by struggles. That is to say the rules of the game are always contested and negotiated in various ways (Watts 2000, Le billon 2000; Li 2001).

Piseth's study on fishery in Tonle Sap shows that the implementation and effect of laws, rules and regulations are varied according to each actor's network of patron-client relations. Thus, social relations can be seen in the form of each actors arrangement among themselves in order to win the bidding. The resulting contractual arrangements are related to their patronage relationships. In social relations, stakeholders also depend on each other to attain their different goals in which he calls 'everyday practice'[7] in order to legitimate their claim over access to resource or exclusive rights through certain form of discourses (Piseth 2001:28).

To understand why some people or institutions benefit from resource under political economic framework, Ribot and Peluso (2003) have suggested the framework of access analysis which involves: (1) identifying and mapping the flow of the particular benefit of interest, (2) identifying the mechanisms by which different actors involved gain, control and maintain the benefit flow and its distributing; and (3) the analysis of the power relations underlying the mechanism of access involved in instances where benefits are derived from access.

In brief, the concept of access has played an important role in examining the larger contexts of such political economic relations (policies, markets, technologies, knowledge, and even identities). As Ribot and Peluso (2003) suggest, the concept of access has been used to analyze the policy environments that enable and disable different actors to gain, maintain or control resource access or the micro-dynamics of who benefits from resources and how.

2.2.2 The Concept of Space Making in Resource Management

Space, by definition, is seen as socially constructed with codes of spatial performance, expectation, and definition, which transcend the purely physical realm of action to defend and define the whole conceptual and cultural 'worlds' as a materially produced phenomenon (Oxford Dictionary cited in Shields 1997). The effect of this phenomenon has resulted in coding operation of topographical space to -

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[7] The term everyday practice is used in the study of common property by Vandergeest (1997) to show that even the rule of formal law is considered legal and legitimate, local people still practice their own rules which existed before the law was formulated. He calls this an informal system of customary rights. In everyday practice, the two systems (formal and informal) both place constraints on resource use. But according to Piseth's case, he argues that this concept is a general and flexible according to time and place. Based on his study on fisheries conflict in Tonle Sap, this concept has been used to examine the flexibility in how small-and medium-scale fishers negotiate, cooperate or resist the systems of exclusion from privatization.

produce sites, region or our sense of spatiality and the way we perceive it.

Kuper (2003) demonstrates that space is one of the complex concepts that has been approached from different angles and at different levels: Philosophical, scientific, and social. It is obvious from dictionary definition that the word "space" has a whole range of meanings related to these different approaches. People everywhere face the reality of space and time, but how they cope with them is a cultural variable, evident in language classification, technology, and ideology and because member of different cultures structure the same physical phenomena through different perspectives and techniques. To understand space in this context, I would like to classify space with three different perspectives: (a) territorialization as a process of space making, (b) space as contested terrain, and (c) space as the embededness of social memory.

a) Territorialization as a Process of Space Making

Vandergeest and Peluso (1995) use the concept of territorialization to analyze the state power in space making and resource management. With this idea, the term territoriality thus works by proscribing or prescribing specific activities within spatial boundaries. It is about excluding or including people within particular geographic boundaries, and about controlling what people do and their access to natural resources within those boundaries. This is based on abstract space that is linear, which can be cut up into discreet units and measured. It is a homogeneously represented as uniform within any given territory or any unit and can be compared and rendered equivalent to another unit by spatial categories. Maps do more than represent reality; they are instruments by which state agencies draw boundaries, create territories, and make claims enforced by their courts of law. State often has to rely on coercive forces against rural residents to implement territorial control. But people always refuse to acknowledge the territories claimed by state for parks, protected production forests, and even state regulations on private property.

Historically, the creation of governing spaces has reflected the imposition of state authority and power over particular places. Modern systems of governance tend to perpetuate this focus on space as an administrative and functional property over and above the chaotic existence of place (Raco and Flits 2001). It is suggested that the state predilection to convert places into spaces is inherent in the bureaucratic nature -

of state practices. Therefore, efficiency in administrative theory can only be achieved by converting messy places into rational spaces.

It is here that the Foucauldian concepts of governmentality has recently been deployed in ways that cast light on the particulars rationales, discourses and practices of community definition and mobilization and their role in propagating new form of place-space relations. As Foucault (1979) argues the object of modern government is the definition and characterization of population to be governed, identifying particular domains or territories of action, such as community, and inscribing them with powers, bounded by exclusion.

Bryant and Bailey (1997) also argue that the growing power of the modern nation-state is an attempt to control the hostile populations in peripheral areas. In many Third World countries, the buildings of physical infrastructure (including roads and canal networks) serve to knit together territory, thereby facilitating central state control. Such control is further enhanced through the accumulation of detailed knowledge about the location of people (along with the source of livelihood) and environmental resources through the use of maps, survey, statistics, and so on (see also Harley 1994; Scott 1998).

b) Space as Contested Terrain

Contested space addresses social conflicts that are located in particular sites. McDonogh (2003) defines contested space as geographic locations where conflicts in the form of opposition, confrontation, subversion, and resistance engage actors whose social positions are defined by different control of resources and access to power. While these conflicts principally center on the meaning invested in sites, or derive from their interpretation, they reveal broader social struggles over deeply held collective myths.

In this way, contested spaces give material expression to and act as loci for creating and promulgating, countering, and negotiating dominant cultural themes that find expression in myriad aspects of social life. Spaces are contested precisely because they concretize the fundamental and recurring ideological and social frameworks that structure practice (Kuper 2003).

In the past, some writers have used phenomenological approach to study people's experiences based on time and space, but later on this approach has moved further by treating space as the irreducible element in our social scheme of things as the forces of representation, socialization, disciplines, and punishing are inflicted. The body exists in space and must either submit to authority (for example, incarceration or surveillance in an organized space) or carve out particular spaces of resistances and freedoms (known as heterotopia) from an otherwise repressive world (Foucault 1984).

According to Lefebvre (1974) in his scholarly writing on the production of space, he mentions three kinds of spaces: physical space or perceived space, mental space or conceived space, and the third space is social space or lived space. It is the third space that he desires to understand, simultaneously physical and mental, concrete and abstract, which emerge from the dialectic of the two. Mental space is formulated in the head and projected onto physical reality, which in turn feeds the imaginary (Lefebvre cited in Kahn 2000).

He argues that social space is not a thing among other things, nor a product among other products: rather, it subsumes things produced, and encompasses their interrelations in their coexistence and simultaneity of their relative order and/or relative disorder. It is the outcome of a sequence and set of operations, and thus cannot be reduced to the rank of a simple object. At the same time, there is nothing imagines, unreal or 'ideal' about it as compared, for example, with science, representations, ideas or dreams. Based on the outcome of the past actions, social space is what permits fresh actions to occur, while suggesting others and prohibiting yet others. It implies a great diversity of knowledge. To produce space, this combination of words would have meant strictly nothing when the philosophers exercised all power over concepts (Lefebvre 1974:73).

Kahn (2000) argues that based on her research, the idea of third space has gradually emerged into more complex, and above all, political space. She considers Lefebvre and Foucault are both mindful of the political aspects of the production of space. Lefebvre's science of space stems from his commitment to an understanding of political practices. His theories aim to uncover the political use of knowledge and imply an ideology designed to conceal that use. As he states the dominant tendency is towards homogeneity, towards the establishment of a dominated space". Foucault, in particular, emphasizes a political understanding of space. In this sense, the military

and the administration actually come to inscribe themselves both on a material soil and within forms of discourse. In deed, he sees the history of space as the history of power. According to Foucault (1980), a whole history remains to be written of the spaces, which would at the same time be the history of power from the great strategies of geo-politics to the little tactics of the habitats.

However Foucault treats space as the metaphor for a site or container of power, which usually constrains but sometimes liberates processes of becoming. Foucault's emphasis upon imprisonment within space of social control has more than a little literal relevance to the way modern social life is organized. Harvey (1990) rejects that Foucault's exclusive concentration on the spaces of the organized repression (prisons, the 'panopticon', the hospitals, and other institutions of social control) weakens the generality of his argument.

Harvey (1990 and 1996) also argues that the spatial practices derive their efficacy in social life only through the structure of social relations within which they come into play. Under the social relations of capitalism, the spatial practices portrayed in the grid become imbued with class meanings. Kuper (2003) argues that the maximum effect of the politic of space is probably evident in countries where colonial powers assumed control and allocated to White settlers the more fertile and healthy areas. The concept of "the politics of space" emerged in manipulating the language of sites-pieces of "social space".

The process of political interaction may be expressed empirically through disputes over or manipulations of sites, and symbolically in the language of sites. It does not matter whatever the sites, the process is similar and groups affects may vary from a few individual to an entire nation.

In short, there is condensation of values in particular sites, and transactions that constitute the totality of social life may be spatially mapped with specific sites expressing relatively durable structured interests and related values. Each site may be perceived in terms of social space-physical, ecological, and structural distance-so that there is a relativity points for the groups involved in interaction. The same site may be differently manipulated according to specific group interests, but the total spatial arrangements form a general network of communication. In this context, space is seen as the power relations according to the studies by the scholar mentioned above.

c) Space as the Embedded Social Memory

Moore (1993 and 1996) applies political ecology approach through an analysis of environmental resource conflicts in a state-administered resettlement scheme bordering Nyanga National Park in eastern Zimbabwe. In order to understand resource conflicts over protected areas and national parks, he analyzes the history of competing claims based on different features of the valley. He assumes that an historical perspective will reveal changing social relations of production in people's relations to places. Through this assumption, he examines how 'social memories construct the past in the present'. He found that 'land in Kaerezi's landscape is the site not only of social production and reproduction, but also the symbolic struggle'.

He also argues that the conflicts over the landscape in Kaerezie are experienced as memories and contested multiple arenas which are simultaneously symbolic and material. He suggests that to understand both of these material actions and their symbolic meanings we need to move toward a historical perspective which also highlights the rules of social memories. To explain this conflict, he combines the political economy and cultural analysis. Furthermore, he criticizes that the earlier political ecology emphasizes only the marcro-level, i.e. state policy and less of the micro-politic. Hence, ' if the political ecology approach seeks for greater sensibility, it will require a new qualitative texture to complement its structural legacy' (Moore 1993 and 1996).

On the other hand, some anthropologists have tried to understand spaces from the perspective of inhabitants, noting that places are developed interactively as individuals relate to them, shape them, and create them (Gupta and Ferguson 1999). They have connected places to social imagination and practice, to dwelling and movement, and to memory and desire, and found world that are sung, narrated and mapped (see also Anderson 1983). By focusing on internally constructed and negotiated nature of place; anthropologists have produced a variety of new descriptive phrases to debunk the old notion of location as static backdrop. These newly perceived spaces are said to be "discursively constructed" through multilocal and multivocal and dynamic processes. Yet the hope for theory of place has not materialized (Lowe 2000).

Rodman (2003) shows that place in anthropologist writing have been equated with ethnographic locales with two concepts:

First, the multilocality which is a way of experiencing those and other places. They predicated on connections, on the interacting presence of different places and different voices in various geographical, anthropological (cultural), historical context. It is also useful for understanding the network of connections among places that link micro and macro levels, as well as the reflexive qualities of identity and the construction of place as people move around the region.

Second, the multivocality often involves multilocality, which has been narrated based on people's practices, their history, their conflicts, and their accomplishments. Narratives of places are not just told with words; they can be told and heard with senses other than speech and hearing. Such narratives can be expressed through the sight of a rock that grew, through certain smells, in the way the wind blows, or the taste of mango. This approach urges us to listen to the voices infrequently heard such as native people who claim power by employing the autochthonous imaginary of " rootedness" to suggest they are inseparable from place, or by asserting primordial connections of oneness with the land.

The ideas of third space whose concern with the concept of place and the process of space making has strongly influenced on the many anthropologists. Lowe (2000, 2001) has used the concept of space and place to study Sama fishers in Togean islands and argued that the new forms of trans-regional, trans-national, and global identities and citizenships, have pushed the social theorists to pay more attention to the idea of travel and diasporas, the immigrant, and the nomad. In this context, mobility and travel have come to be important theoretical foci for re-figuring Sama as modern subjects, and for imagining Sama mobility outside of developmentalist frameworks. This travel illustrates that the mobility is always localized and territorialized, and that movement is also important for producing places, grounding people, and producing space for economic interests.

Sites can be defined as a particular piece of social space, a place socially and ideological demarcated and separated from other places. As such it becomes a symbol within the total and complex system of communication in the total social universe. Social relations are articulated through particular sites, associated with different

messages and ranges of communications. This site can be a house, a village, a building, a town, a resource pool, and each conveys and evokes a range of responses which imply the political relationships that may replicate, reinforce, or contradict relationships expressed by economic, religious, or other social actions (Kuper 2003:258).

Abramson (2000) has used the concept of land to refer to the symbolization of space central to the understanding of land relations, and identity. In the theoretical juxtaposition, he argues that lanscape tends to emerge as 'ideal land' with property and economy interfering as historical realities. By looking landscape in the cognitive and experiential mediation of place and space, there is a danger of underestimating the peculiarity of land and its several cosmic relations where land emerges as a cult or symbolic obsession. After all, it is not any space which sensibly qualifies as landscape. The constructed interior of a prisoner's cell; the entire universe of surrounding space suggested by any cosmology or the cellular view through a microscope.

For instance, in the case study of *Shringar Bhum* on Hill Maria, Savyanaachi (1993:57) shows that the ethnic people define the territorial unit based not on map or the territorial unit of a known shape, but it is based on the universe of plants, animals, trees and human beings. It is a space for the Hill Maria which can not be accurately represented by the cartographic space on the geographical map. In this sense, space constitutes memory, myths, stories, songs and the daily life of the Hill Maria. It is known as a place, as it is not located with reference to other places on map. The term used for place is *Jagha bhum*, which refers to the locations of social activities and it relative to other known places, because it is a place with reference to other villages.

Ostrom (1999) has treated social space as the action arena which individuals interact-exchange goods and services, solve problems, dominate one another or fight. The action arena experienced by individuals as they move from home to market to work can be viewed as seamless web. Underlying any model of an action, arenas are implicit assumptions about the rules individuals use to order their relations, the state of the world, and the nature of community within which the arena is located. The action arena have been explained and focused differently. For instance, the sociologists are often interested in value systems and how human organize their relationships. Environmentalists address the interactions of physical and biological

systems and how these facilitate, constrain, or are otherwise affected by human actions. Institutional analysts focus on rules and incentives and how they affect outcomes.

In fish resource management, the idea of third space, or social space, has allowed fishers to negotiate and emerge themselves in the larger context. According to St. Martin (2001), he argues that social space of fishing is populated by "fishermen" who all have equal access and individual motivation to harvest. The social and economic space of fishers is a space of territoriality, limitations on access, and conflict among distinct/differentiated communities of fishers. Based on his study in New England, he shows that social space of fishing is constituted of static territory, community of fishers and the process of territorialization[8]. It is also the collection of forces and processes that limit fishers to specific areas or regions and bind them into groups with shared interests.

In addition, the process that forms social spaces above, place names used by fishers also confirms the existence and use of a rich and diverse landscape. A sample of places names that emerged can be read as indicators of the social spaces created and maintained by fishers. The social space of fisheries, sometimes temporary and shifting, indicates a space different from the homogenous commons accessible to all " fishermen" (St. Martin 2001).

Based on this literature, I would argue that the concept of space is very important to understand the complexity of fishery management that we can see in the form of collective forces or counter strategies developed by local fishers in gaining access to fish resource. By using social space or third space, local fisher can have the opportunity to negotiate, contest and use their knowledge and social memory in claiming access and manage the resource well (Bruce 1997).

In brief, the concept of space can be seen as contested and developed as the strategies as counter territorialisation as Moore (1993 and 1996) assumes that an historical perspective will reveal changing social relations of production in people's relations to places. Through this assumption, we can examine how 'social memories construct the past in the present' in order to gain access to the resource richness.

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[8] The term " territory" in the anthropological and community/co-management literature often refers to some historical claim by a distinct group of fishers to a specific area and its fisheries resources.

2.2.3 The Concept of Discourse Analyses

Howarth (1995) defines discourse theory concern the role of meaningful social practices and ideas in political life. It analyzes the way systems of meaning or discourses shape the way people understand their roles in society and influence their political activities. He also argues that the concept of discourse includes all types of social and political practice, as well as institutions and organizations, within its frame of reference.

Foucault defines discourse as a system of representation which regulates the meanings, and practices that can or cannot be produced. It is not only concerned with the complexities involved in representation, but also concern with the ways in which knowledge is produced within a shared social context and within definite historical circumstances. Accordingly, discourse made up rules of conduct, and established texts and institutions (Foucault cited in Smith 1998).

Adger, Benjaminsen, and Brown (2001) define discourses as truth regimes and are related to specific social phenomena or practices. In the environmental arena, discourse analyzes have been used to characterize pervading and received wisdoms, the evolution of environmental crises and their social construction. They propose three elements to represent the main aspects of discourse analyses: the analysis of regularities in expressions to identify discourses; the analysis of the actors producing, reproducing and transforming discourses; and the social impacts and policy outcomes of discourses.

Peet and Watts (1996) also have a similar definition, but further defined that discourses can be formed as a framework that embraces particular combinations of narratives, concepts, ideologies and signifying practices, each relevant to a particular realm of social action which are often competing, and other differing interests, although they may uneasily coexist within relatively stable.

The discourse analysis mentioned by scholars above have their own common understanding regarding the system of representation and the construction of meaning in claiming truth. However in this section, I would like to look at discourse in the context of (a) conservation and development, and (b) discourse as the story telling to legitimate the claim over access to resources.

a) The Discourse of Conservation and Development

The political ecology of conservation, like fishery, is a complex issue in the context of sustainability. The concern for the conservation of species and ecosystems was one of the most important roots of sustainable development and management. With the concept of sustainable development, the conservationists began to claim that these objectives could be achieved at all levels: globally, nationally and locally. Therefore, it came to be argued that conservation could meet the true interests of poor people, and particularly the rural poor, who were themselves often the victims of development.

Pinchot (1990) noted that the earlier idea of conservation responds to the development and husbanding of resource for the fullest use for future generation and present generation, while Adams (2001) shows the history of the conservation in Third World is not one of happily shared interested between rural people and state conservation bodies, but one of the exclusion and latent or actual conflict.

Recently, many scholars admitted that the term conservation is a complex system, which cannot be understood from a single perspective. For instance, fisheries conservation in the Cambodian context, the problems and solution of conservation at the local level such as sources of livelihood, access to resource are considerably different from those at the provincial level (monitoring and enforcement) or national level (policies, sub-decrees). Fishers earn their livelihood from the resource may recommend different conservation policies compare to the national-level fisheries officials.

Marschke (2003), based on her case studies on fishermen livelihood in Cambodia, argues that a system of conservation needs to be analyzed simultaneously across scales. Because of a multiplicity of scales, there is no one correct and all-encompassing perspective on system perspectives will vary within system. With reference to the Cambodian example, resolving fisheries conflicts in open access areas is dependent upon the locations, for example, fishing lots, open access areas or community managed area and the interests of different stakeholders.

The recent studies have suggested that conservation is a form of discourse used by the state to control people and resource. This classical approach to conservation has viewed people as the problems and need to be excluded from

protected areas because their economic activities have been viewed as threats to the undisturbed functioning of natural ecosystems (Enters and Anderson 1999).

Agrawal and Gibson (2001) also contend that basic elements of earlier policy and scholarly writing about local communities and their residents are familiar by assuming people were the obstacle to efficient and rational organization of resource use. This schematic representation, popularized by Garrett Hardin (1968) and bolstered by several theoretical metaphors that served to (mis)guide policy, provided a persuasive explanation of how resource degradation and depletion took place.

Zerners (2000) observes that over the last two decades the market has been positively valorized in numerous conservation projects including debt swaps, ecotourism, wetland and other ecomarket hybrids that proliferated across the world. Conservation theory now analogizes nature to a stock market: we act to conserve nature because " wild nature" contains potentially useful "option value". The association of social justice and conservation has crystallized a great deal of non-governmental advocacy for recognition of local community right to land, resource, reef, wetland and seas in the tropical world as well as in northern temperate counties.

Penetration by market forces, which linked local systems of resource use to a large network of demand, further decreased the pressure on natural resources, in which many believed that poorly articulated and enforced property rights arrangements provided disincentives for individuals to protect resources (Hann 1998). This action was done through the heavy hand of the state or through the equally heavy hand of the market and private property rights which aimed to exclude local people such as the conservation scheme (Agrawal and Gibson 2001).

Nuemann (2001) contends that the idea of conservation is the increased control by the state in responding to the challenges of long-term development and management of the resource. For instance, the national parks in Tanzania show that local people have reduced access to ancestral lands, restrictions on customary resource uses, and the predation of wildlife on cultivated lands. As a consequence, this conservation has been in conflict over access and resulted in confrontations over boundary locations and demarcations, access to local livelihood resources, and the enforcement of park and conservation laws. In such national socioeconomic contexts across Africa, the loss of local land and resource access in the name of conservation -

has fueled rural conflict (See also Nuemann 1992, 1998, 2000; Moor 1993, 1996).

Li (2001) has called this kind of conservation a coercive conservation measure such as a ban and exclusion. This argument is similar to what Anan (1998) calls as the form of increasing control over people and enclosure by the state over the local resource. Anan shows that local people who live in the forest and practice shifting cultivation have been blamed constantly for destructing the forests, and the threats to the national security even though the fact is caused by the complex social and political problems relating to the process of unusual development.

The strategies for increased control by the state may include privatizing natural resource (within state-defined frameworks) or direct state management; encouraging settlement in unpopulated areas or forbidding settlement and enforcing exclusion; centralizing administrative authority or devolving authority to lower levels. The making of map, the conduct of censuses, the drawing up of village boundaries and lists, classification and staking of forests can all be seen as measures to define, regulate, and assert control over the relationship between population and resource (Vandergeest and Peluso 1995; Peluso 1992, 1993 and 1996).

Adams (2001) criticizes conservations priorities have tended to be remote from local day-to-day economic reality, and are indeed from this perspective irrational, since they involve forced abandonment of rights and resource use patterns that were in place. Regulations and boundaries are set from outside the community, imposed in plans that are never seen by the government officials who have power, but are faceless and nameless to local people, advised by scientist whose expertise is attestable, remote, and not always sound. Normally the conservation reflects the priorities of national conservation agencies and international organization. The policies of these conservationists are likely to be as alien to local people as any proposed by conventional development planners, and potentially adverse to their interest.

In brief, the case studies by many scholars show that most of the conservation programs have failed as face the confrontation with local people who have been excluded from the process. Most often, they have traced back through historical claims to challenge this dominant ideas, as I will discuss in the following section.

b) Discourse of Access Over Resource

The other form of discourse has been used as the strategies to articulate or legitimize the claim over property. That is, discourse is one way of creating space for action of reconstructing reality in such a way that people can be moved to act. Thus, stories are a vehicle for transmitting and making accessible a framework of meanings. A story and the discourse it bears reminds people of what they deserve and of their ability to act (Fortmann 1995). Since access to property is often overlapped, each stakeholders group needs to negotiate and renegotiate within the groups involved with this process weather to agree or disagree over the existing rules. Thus, each group tries to gain rights by communicating or convincing others that their claim is the most legitimate. Story telling is the basic and important tool for local people in local sphere (Kaneungnit 2001).

She also argued that since stories are part of local discourse and a strategy in negotiation, its function is to create the meaning out of action by organizing the experience and by mobilizing the action. A story can provide space to create metaphors that provide simple discursive strategies and to define alternatives or new acceptable rules. It is often used to connect the common interest in order to gain alliance. This has to be told and retold, not only to other audiences but also among the court groups in order to maintain strength among the members. Stories can be selected and told differently to different audience such as to the poor and the rich. All of these strategies can be used to legitimize property rights at different levels (Kaneungnit 2001).

In peripheral regions, as powerful demands for resources, and military control have guided state expansion to the most remote corners of the earth, the autonomy and mobility of the marginal cultural groups of once inaccessible places have increasingly been threatened. So to legitimize action, state rule and political practice have to create their meaning and magic through its technologies and activities including talk. Therefore, story telling is one kind of discursive practice. Personal stories create " experience" for leaders; forge an identity as a witness and survivor at the borders of state authority and violence. Through crafted memories, a leader builds his/her permanence within current social relations; he/she conjures up the past to reconstruct the political contours of the present. The storyteller builds the beautiful and terrifying aspects of power on which his own political agency depends. He/she recalls the state

as the exemplar of power and reconstitutes political subjection and subjectivity in his/her listeners. Thus, stories give shape to politics, political communities, and political actors (Tsing 1993).

Recently, the alternative to resource conservation is seen as the form of communities, for instance the Community-Based Resource Management (CBNRM). However, this term has attracted many scholars and researchers to debate on this meaning and form as the discourse. Watts (2000) assumed that community (as a contested and complex entity in itself) has historical attachments and entitlements over environmental resources, indigenous institutions, and customary right and practices, which control access to and regulation of resources, and that it is the repository of alternative environmental knowledge. In this sense, community typically involves a territorialization of history and a naturalized history, which has a number of implications such as form of regulations and access to resource with the questions of identity; the images of community can be put into service as a way of talking about, debating, and contesting various forms of property and therefore claim over control and access to resources.

Gupta and Ferguson (1999) raise similar argument by suggesting how imagined community comes to be attached to imagined places, imagined homelands, places, or communities in a world that seems increasingly to deny such firm territorialized anchors in their actuality. Remembered places have served as symbolic anchors of community for dispersed people. The special challenge here is to use a focus on the way space is imagined as a way to explore the mechanisms through which such conceptual process of place making meet the changing global economic and political conditions of lived spaces-the relation, we could say, between place and space. Place are always imagined in the context of political-economic determinations that have a logic of their own.

Enters and Anderson (1999) suggest the introduction of community-based conservation and the devolution of resource management a considerable challenge. In this sense, we should look at the potential nexus between the interest or resource users in devolution and the objectives of conservation. This nexus and ability to conserve and manage resource depends on numerous variables; such as: population density, the arrival of technological innovation and improved access to infrastructure including education and markets.

In brief, the current writing on community-based conservation assert that the community is central to renewable resource management. They seldom devote much attention to analyzing the concept of community, or explaining precisely how community affects outcomes. Some authors refuse to elaborate on what it might mean. According to literature reviews show that most studies in conservation field refer to a bundle of concepts related to space, size, composition, interactions, and interests. Much of these literatures see community in three ways: (a) as a spatial unit, (b) as a social structure, and (c) as a set of share norms.

In a traditional senses, the advocates of community-based conservation forward a conceptualization of communities as territorially fixed, small and homogeneous and shared norms. These characteristics supposedly foster the interactions among members that promote desirable collectively.

In contrast, some community characteristics considered important to collective action may actually thwart conservation effort while small-sized groups may be unable to defend their resources in the face of strong external threats, or be unable to manage resource if they are spread over large areas. Strong and static norms may support exploitative behavior, or be resistant to outside attempts at their modifications

2.3 The Studies of Fishery Issues in Cambodia

In this section, I will examine fish management and the study in general in Cambodia and their approach used to study. After that I will look specifically at Stung Treng to see who and how the study in the province has been carried out.

The Mekong River and Tonle Sap Lake are the ecological link which create vast resource of fish. The flooded forest around the Tonle Sap and in the Mekong of Cambodia create a particularly good breeding ground, providing a protected environment for spawning fish and an abundant supply of plankton to feed on and the seasonal migration of fish species.

However, fish resources are still significant for Cambodian people today. Van Zalinge and Thouk (1999) in their studies on freshwater fishery management identify three major points.

First, the estimated fish catch in Cambodia totals about 290,000 to 430,000 tons per year, which equal US$ 150-250 million annually.

Second, with regard to fish degradation and the management of fisheries resources, the study explains that large-and medium fish size are declining, only the small fish appear to be tolerant of recent increases in catch. The reasons for declining fish numbers can be found in three main areas. (1)- *open access* – any persons who wish are able to fish simply because fishing equipment is easy to make and cheap to buy. This is one reason for the conflicts between local people and fishers from outside who come to occupy the same fishing territory (2)- *habitat destruction* – the felling of flooded forest for rice paddy, the draining of swamp and lake areas and the use of destructive farming methods has contributed to a decline in areas where fish live and breed. (3)- *dams and irrigation systems* have blocked off fish spawning grounds and decreased the average flood levels of the Mekong River.

Third, the solutions to conflicts between resource users are often difficult, as agreement between stakeholders is not easily reached. Van Zalinge and Thouk (1999) suggest that lot owners or commercial fishers should come from the local communities where the fishing ground is located and the boundaries of lots should be made clearer.

Piseth (2001) reviewed the studies on fishery in Cambodia showing that fish resources in Cambodia have been exploited and used by Khmer and other ethnic groups since the eleventh or twelfth century. Ethnic groups from Surin and Nakorn Rachasima (*Korat*) in Thailand and Laos move across the border every year, accompanied by thousands of oxcarts, to fish in Tonle Sap Lake and preserved the catch for consumption until the next season.

The main focus of his study is to look at the contested legitimization to fish resource under the enclosure from large-scales fishers to the small- and medium scale fishers. Two approaches had been used in his study: the human ecology and political ecology approaches.

His study contributes to our understanding of conflicts in fish resource management in Tonle Sap Lake in many aspects. It attempts to unmask and explain the underlying sources of conflict by recognizing the people's dynamic way of life and adaptation to the environment and to policy changes, and their ' individual 'tactics' adopted for sustaining their subsistence livelihoods. He suggests that further study on new problems and how the villagers adapt to the current situation would be

valuable areas of future research. Indeed, a comparative study with other villages' of ways of life and practices of fishers is a possible recommended area for further research.

Degen and Leng (1999) warn that the result of the annually higher amount of catch does not mean that there are in fact higher fish numbers than there were before. The reason for fish stock decline may be due to habitat destruction and open access of fisheries as well as due to disorder in the fisheries sector. They propose three points for fish resources management: (1) fishing gear catalogue, (2) fishing lot inventory, (3) building awareness of fishery. Importantly, from the third point they believe that, if fishers will consider themselves as fish managers, it may lead to more sustainable fisheries management, because they are able to control and manage the fishing effectively.

According to Degen et al (2000), the underlying source of conflict is that the area assigned for local people is fishable only during flooding season. This is the closed season in fishery when the fishing for medium-size fish is illegal. During the dry season, these areas dry up and the fish migrate out.

On the other hand, Tana (cited by TERRA 1999) reveals that privatizing the fisheries occurred in 1989 where all fishing lots were available for auctioning, except a few which remained under state enterprise ownership for research purposes. However, he argues that fisheries management by the State has always been a step behind commercial fishing practices. Its means of regulations, restrictions and taxes cannot keep up with the developing the commercial environment. So the State has always failed to do effective tax collection because large-scale fishers always claim that there has been a fish decline and they have a financial loses. But because the State has a financial stake in large-scale fishing, it has justified the intensity and expansion proposed by those activities.

Gum (2000) also shows that since the policy of fish management was implemented, it has created the conflict among villagers and disorder among fishery staff. This situation has resulted in an increasing and widespread use of illegal fishing gears and stock damaging practices as well as conflict over access rights and distribution of catch which are characterized by violence.

Gum concludes that the enforcement of the law is very weak with an inability to control the widespread illegal and destructive fishing practices, to prevent or solve fishing conflicts, and to collect sufficient state revenue. This weakness is found not only at the micro-level, which is hindered by the military units or the police, but also at the macro-level, where enforcement is hindered by under- appreciation of the value of these resources by government and the donor community, both in terms of economic and livelihood value.

Based on this review, he proposes different strategies on how recommendations can be fully implemented. His recommendation for fisheries management is based on the introduction of co-management as a guiding principle. Fish co-management is based on the existing institution in the community or in the village, namely the Village Development Committees (VDCs) and Commune Development Committees (CDCs). This co-management is applied, especially, on the fishing lot system. Local communities, in turn, would cooperate in the protection of the inundated forest and restrain from fishing illegally in fishing lots. For their efforts, they would receive additional fishing areas which would be allocated on an exclusive basis to local communities. Therefore, further research is needed to reflect the poor understanding of current inland fisheries management practices and the inter-sectoral nature of fisheries issues (Gum 2000).

In Stung Treng, there have been a few who have carried out their study in the province even though this area has served as the ecological links of fish in Tonle Sap Lake and other down stream and up stream of the Mekong River. Vannaren (2002) shows that the present fishery management in Stung Treng operates under the extensive regulations enforced by the state. There are a number of laws and regulations which are enforced to control fishing efforts such as gears, and fishing practices banning on use of explosives and chemicals to ensure sustainable production. The law enforcement in protecting fishery resources by the state has not been so successful and the fish stock has been declining and fish catch has been decreased from year to years.

The main focus on his study is to look at the community participation in fish resource management and poverty alleviation by using participatory approaches, fish catch and stock assessment. His study also suggested that since fishery is a renewable resource, its exploitation and management should rely on the perception and the

responsibility of the fishing communities. The natural fishery resource in Stung Treng province of Cambodia has to be conserved and protected by the fishers themselves. The development and strengthening of local institution among the fishing communities is proposed as an alternative for the development of fishery community management system (Vannaren 2002).

According to a concluded study by the Cambodian Wetland Team (1999), they found that Stung Treng is a province that supports good conditions for fish habitats and the spawning grounds of endangered species. If the provincial authority and provincial fishery office do not manage this area well, local people will catch fish in whatever ways they think is right for them whenever they lack of food which will lead to the extinctions of some endangered species. So, they must define the prohibited areas for spawning grounds and eliminate the flooded forest destruction and illegal fishing activities. However, this suggestion seems very contradictory with the present export policy in the province which was introduced by the Ministry of Agriculture, Forestry and Fisheries.

Based on the studies I have reviewed above, most of the studies focus predominantly on two approaches of orientations. First, most studies focus on the assessment of fish stock and catch by individual. It focuses more on fish management, evaluation, fish species found in the areas, annually estimated incomes and consumptions. These studies (Van Zalinge et al 2000; Degen and Leng 1999; Gum 2000; Vannaren 1999, 2002) have used scientific, technical approaches, participatory approach which provides basic foundation to fishery reform and implementation.

Second, most studies focus more on the local and conflict in fishery management and exploitation such as (Degen et al 2000) and Piseth (2001). But Piseth has used different approaches: Human and Political Ecology to look at mainly the contested and adapting strategies of each scale of fishers in order to gain access to fish resource. In addition, most of the studies focus on the Tonle Sap Lake which only few focus on the upper Mekong River of Cambodia.

However, most studies miss: (1) politics of space making in resources management, i.e. access to resources by different groups of people as a result of policy and management of fish resources; (2) cultural practices: seasonal variation and different everyday practices including social relations and adaptation of local

livelihood strategies to create their social and economic space. Piseth has also touched on this issued a little, but his study focus mainly in Tonle Sap and did not focus on the politic of space making in resource management and social memory.

2.4 Conceptual Framework

Based on the literature reviewed, I propose a conceptual framework for this study, based on the regional political ecology that emphasizes the social relations of production as central to geographic understanding. Jarosz (1996) observes that much regional political ecology is inspired by Marxist analysis, which concern itself with resource access and control, relation of surplus extraction, and capitalist intrusion set within developing countries. Bryant (1992) argues that regional political ecology typically focuses on analyses of regional transformation and rural development in the so-called Third World. This concept also reveals the reconstructed geography, which employed how regional transformation and environmental change are embedded in economic and social process.
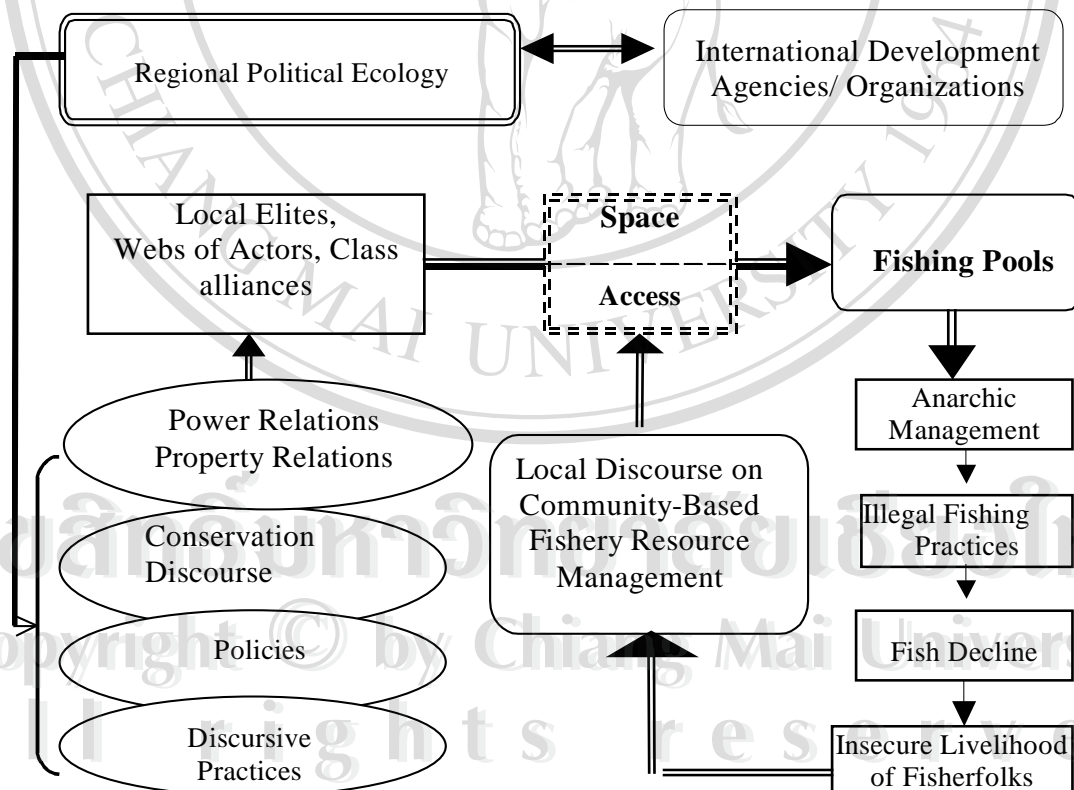
Figure 2-1. Conceptual framework for an analysis of space making and access in fishery resources: prospects for local management in Stung Treng Province, Cambodia.

2.5 Summary

Fishery management in Stung Treng is a very complex and dynamic issue. However, in order to study this issue, three concepts have been used based on the regional political ecology framework in order to explain this complexity of conflict in fishing development in the province.

First, the concept of access as social relations to resource, which is employed to understand cultural value, different strategies used by stakeholders and web of power relations in order to gain access to fish resource. This concept is used to analyze how the individual stakeholders manipulate their relationships in which this process can be seen through kinship, patron-client, sharing the same commercial interests, formal rights and customary rules.

Second, the concepts of space making in resource management is employed with the assumption of the state claims all natural resource belonging to the state through the process of territerialization. This concept has furthered facilitates an understanding of penetration of market economy through the state facilitation and how the state uses its power to influence access to fish resource through the process of privatization and commercialization, putting pressure on these resources for profit maximization. This process can be called as a process of transforming natural resource into money through the political ecology that legitimates an exclusionary form of capitalism, especially for countries uncertain with transitions from a state socialist to market economy.

The third concept is "discourse analysis in resource conservation". As a powerful demand of resources, the concept of discourse is used to understand the ways of how the meaning and strategies have been produced, articulated or legitimized the claim over property. Discourse is one way of creating space for acting of reconstructing the reality in such a way that people can act. In state rule, story telling is one kind of discursive practice. As Tsing (1993) argues the personal stories create "experience" for leaders, forge an identity as a witness and survivor at the borders of state authority and violence. Through crafted memories, a leader builds his/her permanence within current social relations; he/she conjures up the past to reconstruct the political contours of the present. The storyteller builds the beautiful and terrifying aspects of power on which his/her own political agency depends.