Chapter II

Community-based Forest Management: Concepts and Background

2.1 Forest resource and local people's livelihood

Livelihood is comprised of the capabilities, assets (including both material and social resources), and activities required for the means of living. Livelihood is sustainable when it can cope with stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base (Chamber, 1998). The forest resource, for livelihood, play the role as natural capital – the natural resource stocks (soil, water, air, genetic resources etc., and environmental services (hydrological cycle, pollution sinks etc.) from which resource flows and services useful for livelihoods are derived.

Forests and its products are important to the quality of life and even survival of very large number of poor rural people in tropical developing countries (Ruiz Pe'rez and Arnold, 1996). The degree to which people are dependent on forest is different. While some people depend on forests to generate additional income that can be obtained from alternative activities, others depend on forest for their foods and income but they have no alternatives and forests are respected as a "savior" (Pimental et al, 1997). The way in which forests contribute to human livelihood includes household use (subsistence), timber, fuelwood, wild foods (animal and plant), medicinal plant, other non-timber forest products, grazing for animals, forest-based agriculture, forest foods, and income from forest-related products and labor.

Despite of ambiguity in the definition of forest dependent people, FAO and World Bank has estimated of the number of people involved forest of some countries in Southeast Asia to be as high as 118 million people as shown in Table 1.

Table 1. Number of forest dependent people of some countries in Southeast Asia

Countries	Cambodia	Lao PDR	Vietnam	Thailand	Indonesia	Philippines
Population 1995 (million)	10.9	4.9	74.5	58.8	197.6	67.6
Forest-dependent Peoples 1995	1.4	2.4	25	10	60	20

Sources: Figures presented in this table are estimates drawn from FAO and World Bank country reports and consultant documents.

For the rural people, especially the poor, forest foods add variety to diet, improve palatability, and provide essential vitamin, mineral, protein and calories. Forest foods also are most extensively used to help meet dietary shortfall during particular seasons in year and a source of foods during emergency periods such as floods, famines and drought. Forest products can provide a source "windfall" income, enabling people to clear their debt or accumulate some capital and have significant importance and potential as savings and security for the poor (De Beer and Mc Dermott,1989)

Apart from economic values, the forest is significant in cultural and social life of the people living around it. For example, in Vietnam, there exist spiritual *and ghost forests.* Each individual in a community takes responsibility for protection and additional plantation of flowers, large-shade trees and installation of statues.

In short, forests have a great deal of contributions to livelihood of people in term not only economic but also cultural and social aspects and even determine the life of the poor. People are dependent on forests in alternative way and degree for their livelihood. It is difficult, if not impossible, to separate people, particularly those living in or near forests from forests when they relies on forest for their livelihood.

2.2 History of community forestry

The dependency of people on forest resource, in turn, gives them incentive to protect and manage the forest. There are many ways in which the local people

participate in managing the forest such as social forestry, participatory forestry, co-management, community forestry and so on. The degree to which people participate in forest management and the right they have on the forest have evolved in accordance with the evolution of policies.

The concept of "community forestry" as well as its approach has changed the pattern of forest management of forest. In the early post war period, the development paradigm is a pro-industry, a top down approach is predominate (Stohr and Fraser Taylor, 1981). In this approach, it was assumed that development started from just a few geographic center clusters. It was hoped that development would trickle down from the growth point to other regions. With this paradigm, attention heavily was given to economic growth and therefore per capita income was used as the indicator to measure development (Conyers and Hills, 1984).

By the late 1960s, the effectiveness of the development from above approach began to be questioned from the majority of developing countries with poor resources. The development of the center region was not strong enough to trickle down to the rural region and there appeared to be no immediate alternative to it. The development-from-above approach was criticized because it failed to respond to the needs of the poor and its assumption seemed not to work in practice (Frank, 1967).

In response to these problems, new concepts of development began to emerge in the 1960s. This new approach constituted a "development from below" paradigm, which defined development in term of the extent to which basic needs of population were met.

In the forestry sector of Third World, the evolution of ideas about development planning largely followed the shift in concept, which occurred in development planning in general. Between 1945 and 1970, the considerable potential of the forests was recognized as catalytic agents for industrialization and economic growth. This opened door to the development of forest based industries that consumed so much forest resource, leading to degraded forest resources. However, the reality in the Third

World after three decades of systematic attempts to develop the forestry sector was that this potential had hardly been realized at all. Forest industrial development has in some cases failed to reflect the real needs of other sectors including the crucial food and agricultural sectors. The concept of community forestry emerged in response partly to this failure of the forest industry development model and partly to the increasing rate of deforestation, and forest and land degradation in the Third World.

In the late 1970s when international attention began to focus on basic needs and the problem of rural development in the Third World, it was recognized that, in addition to its industrial role, forests had two important roles to play to provide forest products and trees for rural people who no longer had access to them, and to find ways of increasing the benefits of the forest resource to the people who live in or near forests. The attempts to do this soon became know as community forestry or social forestry. As Gilmour and Fisher note, "the early approaches to community-based forestry in the 1970s were referred to as "social forestry" and were often limited to hiring local villagers to establish woodlots. In 1978, FAO defined very broadly as ".... any situation, which intimately involves local people in forestry activity". By the 1980s the concept of community forestry had become firmly entrenched within the forestry policy of many developing countries.

In Southeast Asia, the appearance and development of community forestry also is not out of the common tendency of the world. Until the twentieth century, although most Southeast Asian governments give little recognition to communal resource management institutions, village elders, clan chiefs, and other traditional community leaders and their members continues to play important roles in guiding the use of farmlands, water sources pasture-lands and forests.

By the late 1990s, community-based forest management has become accepted as the primary strategy for uplands development in the Philippines. Vietnam continues to target households in forest stewardship programs. With a rudimentary administrative structure at the local level, planners in Lao PDR recognized that indigenous village governments provided the best option for local forest management, and ratified the

Village Forest Law in 1998. In Indonesia, Thailand, and Cambodia, social forestry remains primarily a mix of donor-funded projects which promoters hope will eventually lead to formal government acknowledgement of community forest rights. Throughout the region, a rich body of knowledge is now surfacing regarding effective ways to support community-based forest management through new forest tenure policies, legal mechanisms, community mapping, and the dialogue process.

2.3 Systematic approach to studying institutional issues

2.3.1 Community

Community is being defined as "an assemblage of people link together by some common interest, allegiance or serve provision'' (Gareth, and Graham, 1990). In term of forest management, a community in broad sense is as group or set of people with the common interest of getting a sustained supply of forest products. The community may be only a geographic entity labeled as a village by external arrangement for administrative purpose. The boundary of community can be limited by the researcher in accordance with their study purposes.

2.3.2 Community-based forest management

Community-based forest management (CBFM) is characterized by the local communities playing the central role in identifying resources, defining development priorities, choosing and adapting technologies, and implementing management activities. The management is the bottom-up, rather than top-down, approach in which the local people's participation is considered a very essential element.

Over the past three decades, community-based forest management programs have acquired new names such as participatory forestry, joint forest management, social forestry and village forestry or community forestry while the scope of the role of rural people has broadened as well. To date they, to some extent, can be used in replace together.

The participatory process is the cornerstone of CBFM activities. It is the design, implementation, monitoring and evaluation of development activities by the local people who will be affected and the institution that is supporting and promoting the activities.

Two much concerned forest management paradigms are state and community-based ones. In spite of having parallel existed, they have profound differences, even conflicts that necessarily affect any resource management strategy. Some important differences include short and long-term goals, technologies, control mechanisms, orientation in space and time, and modes of production (Poffenberger, 1999). Table 2. portraits such differences.

Table 2. Summary table of different characteristics between state's and community's forest management regime

State	Community
Centralized management	Decentralized management
Revenue orientation	Resource orientation
Large working plans	Localized use strategies
Target orientation	Process orientation
Unilateral decision making	Participatory decision making
Punitive rules	Group pressure
Hierarchical forest departments	Non-hierarchical people's institutions
Area management	Site specific management
Timber production	Multiple products combined with environmental functions
Single technical package	Diverse technologies
Fixed procedures	Experimentation and flexibility
Single species	Multispecies and multi-tier forestry and agroforestry

These differences do not mean that these two mechanisms have to be exclusive of each other, but that each one has to make adaptation with another. The process of trying to integrate the different agendas of the state, development agencies, and communities has resulted in some progress in merging the forest management goals and strategies.

2.3.4 CBFM as common property

Forests are common pool resources (or commons) that have two defining characteristics: first, it is costly to develop institutions to exclude potential beneficiaries from them. This invites people to use, even overuse, common pool goods without investing in their conservation or management; second, the resource units harvested by one individual are not available to others - they are subtractable in consumption and can thus be depleted. They, if without management, would become non-property or open access resources for which rights or duties have not been defined.

Once managed by community, forest resources become "Common property" or are under communal property-management system. "Common property" or "common property regime", different from "common pool resources" that only refers to the physical qualities of resource systems, refers to a property rights arrangement in which a group of resource users share rights and duties towards a resource (Ciriacy-Wantrup and Bishop, 1975). "Property" refers to social institutions and not to any inherent natural or physical qualities of the resource. The other term often used to replace for "common property" is "common property resources", however it should be avoided because it risks confusing property (a social institution) with resources (a part of the physical and biological world).

Bromley (1991) states, " A right is the capacity to call up the collective to stand behind one's claim to a benefit stream". When one has a right to the particular resource one has the expectation in both the law and in practice that its claim will be respected by those with duty, or protected by the state. Right can only exist when

there is a social mechanism that gives duties and binds individuals to those duties. In this context, it is essential to understand that property is not an object such as land, but rather "a benefit (or income) stream, and a property right is a claim to a benefit stream that the state will agree to protect through the assignment of duty to others who may covet, or somehow interfere with, the benefit stream" (Bromley, 1991). The institutional arrangements are established to define the property regime over the natural resources, whether that resource regime would be classified as private property, state property, or common property.

Property rights emerge in response to conflict over resource use and conflicting claims over resources, and well-defined property rights help to promote a more efficient use of resources and more responsible long-term care of the resource base (North, 1990; North and Thomas, 1973; Demsetz, 1967; Alchian and Demsetz, 1973; Anderson and Hill, 1977; Libecap, 1989). Moreover, according to Gibbs and Bromley (1989), common property is created when members of an interdependent group agree to limit their individual claims on a resource in the expectation that the other members of group will do likewise

2.3.4 Institutional analysis in community-based forest management

An institutional analysis for a community based forest management is to attempt to understand the incentives that motivate human behavior in a particular place at a particular time and the impact of those behaviors on the natural resource base.

An incentive is something that makes a person want to do something. Money can be an incentive: a project can pay people to plant trees, for example. Fear can be an incentive: fear of their ancestors may cause a group of people to protect a sacred forest. In forest management, incentives that people typically face include: (1) incentives related to the characteristics of the resource base; (2) incentive related to the characteristics of the community; and (3) incentives related to the characteristics of the rules, or institutional arrangements, in place in that community

(1) Characteristics of resource base

It is necessary to "distinguish between the resource system and the flow of resource units produced by the system, while still realizing the dependence of the one on the other...resource systems are best thought of as stock variables... resource units are what individuals appropriate from resource system". Understanding the distinction between the resource system as a stock and the extraction of resource units as a flow is especially useful in the management of renewable resources, where it is possible to indicate a replenishment rate (Ostrom, 1990). The forest resource is a kind of renewable one. As long as the average rate of use does not exceed the average rate of replenishment, a renewable resource is sustained forever

The important attributes of forest resource are excludability, nature of consumption, and scarcity, which cause problems in its management and affect the behavior of people toward the forest.

- **Nature of consumption**

The nature of consumption refers to whether the consumption of the good is subtractive or joint. Consumption is subtractive when one person consumes a good for a particular purpose, with the result that another person can not use the same good. Subtractability can be applied to the commons in two ways. First, any use of the commons by individual users is subtracted from a flow of resource units – whether it is a cubic meter of water, fodder, firewood, or timber – is unavailable to others. Second, a cumulate use by many individuals will eventually extracts from the total yield of the common over time. If the rate of exploitation does not exceed the rate of replenishment the degree of subtractability can be minimal or zero. Threshold at which use becomes subtractive varies from one situation to another. In short, each individual user is potentially capable of subtracting from the welfare of other users; but, within limits, all users can derive benefit jointly.

- **Excludability**

It refers to the question of access to any type of good, including resource base. The excludability or feasibility of exclusion is a term used to indicate whether it is easy or difficult to control access to a good or service. For any good or service it will be easier (higher feasibility of exclusion) or harder (lower feasibility of exclusion) for someone to keep other users from gaining access to the output. The feasibility of exclusion will vary according to the output and may change seasonally and attainable depends on both the physical nature of a resource (design of facility) and available technology.

The feasibility of exclusion has an important impact on people's incentives to care for a resource. In general, the more feasible it is to control access, the more the rights-holders feel that they have tenure security, that is, people believe that they will be able to gain the benefits of their property. When people feel that their tenure rights are secure, they are generally more willing to invest in improvements of the resource. In many cases, then, a higher feasibility of exclusion is associated with stronger incentives to nurture, protect and invest in a particular resource.

- **Scarcity and proximity**

A large forest area endowed with plentiful resources can absorb a degree of subtractability but not able to exclude other potential users. If the forest resource are scare, competitive use are likely to be intense. Consequently, free riding and rule breading incidents tend to increase. Eventually, the forest resource will be degraded and the management regime of local institutions will be vulnerable to collapse. Proximity of the forest can affect the degree of excludability. The forest close to the community increased the degree of excludability for it is easy to notice and monitor the activities in the forest.

(2) Characteristics of community

A key factor that determines a community's ability to manage resources is its social cohesion and willingness to set and strive for common goals. This does not

mean that the community must be homogeneous but rather the key issue is whether the community is able to establish common goals, establish strategies for accomplishing those goals and then work together to follow the strategy that has been proposed. Key characteristics of community provide incentives or disincentive in several areas related to resource management can be grouped into four groups as follow.

- **Historical factors**

These factors may hinder or help the implementation forest management. Among the historical factors that play a key role in community cohesion and resource management are population and settlement history and conflict history. The population history reflects the ancestral origins of the community. In some cases all present members of the village may be descended from a single ancestor or gamily. This is may be an important factor in current social cohesion. In other families may have divided or new families may have joined the community. The community's experience with conflict and the way it has managed conflict in the past greatly influence its present degree of social cohesion and its willingness to engage in cooperative resource management activities.

- **Social factors**

There are numerous issues related to the social structure of the community that affect its cohesion and the kinds of interests different groups may wish to protect as they seek solutions to resource management problems. Some of the most salient include ethnicity and language, family and structure, caste and other social divisions and gender relations.

While ethnicity is not necessarily a divisive factor in communities, it certainly can have a divisive effect. Other potentially divisive factors included religion and language. Family structures often play an important role in creating or limiting social cohesiveness. For instance, when intermarriage is common in a community, a vast

network of relationships is created that may contribute to a common sense of identity and purpose. Gender considerations are also a key to understanding whether communities will be able to organize action in response to some of the more complex resource governance problems.

- **Economic factors**

Economic factors can also play a role in determining whether people have similar or divergent interests concerning how resources should be managed. Tow salient issues are differences or similarities in livelihood strategies and degree of economic stratification in the community. People's perceptions of resources and their attitudes toward those resources will differ depending on how resources fit into their individual livelihood strategies. The economic interests provide various incentives to protect, invest in and exploit forest resources. People's interest in the resource base also varies depending on their level of economic well-being. There is now considerable evidence to suggest that poor people often depend more heavily on forest resources to meet their subsistence needs than do people who are wealthier.

- **Culture factors**

Many cultural factors affect the incentives people face in protecting and exploiting their tree and forest resources. Some of them are related to religion. People sometimes believe in the power of a religious item such as a fetish or other holy book to seek out and punish transgressors of local rules regarding tree use or activities in forests. Such beliefs may reduce the need to monitor the behavior of local people although there may still be a need to use other means to control access by people who do not accept these beliefs.

Cultural beliefs also play a profound role in people's sense of ownership of resources. In some communities it is unthinkable that an individual might be considered the owner of a tree or forest since people believe that those resources are

only in the temporary stewardship of the current generation, which manages them on behalf of the ancestors and future generations.

(3) Decision making arrangements

It includes both the institutional and organizational arrangements that govern individual and collective behavior in the use of the particular resource.

Institutional arrangements, in the context of resource management, are defined as " the rules and conventions which societies establish to define their members' relationships to resources, to resources, translate interests in resources into claims, and claims into property rights". (Gibb, 1986). In other word, institutional arrangements are defined as property right on the resources and the rights and obligations of individuals and groups. "Institution" in general, is collective conventions and rules that establish acceptable standard for individual and group behavior, reducing individual uncertainty concerning the actions of others.

Institution embody some kind of "collective action" in which the interests, resource, preferences, ideologies of many persons are brought together, and are reinforced by diffused benefits, legitimating, shared expectations, and rules (Bromley, 1982). There can also be penalties imposed for persons who violate institutional obligations (Arkadie, 1989). In this manner, institutions reflect the conventions that have evolved in different societies regarding the behavior of individuals in relation to the groups (Ruttan and Hayami, 1983).

Institution somehow helps define organizations through law and administrative decisions, which establish principles and guidelines for their formation and conduct. Organizations, as the structures of recognized and accepted roles, may exist in a formal or informal form. The latter has no legal bases to prescribe explicitly the roles and the authority and other resources associated with it. Organizational arrangements are "the ordered groups of people who use the resource purposefully. However, in

some extent, the term of "institution" and "organization" are often used synonymously.

Understandably, institutional and organizational arrangements are rules that, at work in the community, may be either formal or non-formal. Formal rules comprise all the codified laws and regulations that are issued by a legislative process or formal decree. These may be promulgated at the national, local or village level but they are generally written down somewhere. Non-formal rules on the other hand are generally unwritten. They often derive from custom or practice. They are more likely to exist at the village level than at higher official levels but this is not always the case.

The different impacts of the rule on people's behavior depend on whether on many factors including whether the rules are enforced and whether people think the rules make sense (fit) and are fair. The effectiveness of the rules is captured by another distinction: the difference between working rules and non-working rules. Rules are considered to be either working or non-working depending on whether they actually affect what people do. Working rules "are common knowledge and are monitored and enforced. Common knowledge implies that every participant knows the rules, and knows that others know the rules" (Ostrom, 1990).

According to Ostrom (1990), the rules are divided into three subsets - operational rule, collective-choice rule, and constitutional-choice rule. *Operational rules*. These rules directly affect the co-appropriators in day-to-day decision making concerning when, where, and how to withdraw resource units, who should monitor the actions of others and how, what information is needed, what rewards or sanctions will be assigned or imposed to different actions and outcomes. *Collective-choice rules*, these rules indirectly affect operational decision-making. These rules are used by appropriators, their officials, or external authorities in making policies about how a common property resource should be managed. *Constitutional-choice rules*, theses rules affect operational activities and outcomes through their effects in deciding who is eligible to use common property resource and determining the specific rules to be used in framing the set of collective choice rules that in turn affect the set of

operational rules. As result, the rules affecting operational choice are made within a set of collective choice rules that are themselves made within a set of constitutional choice rules.

Facing given incentives related to these characteristics above, individuals make choices of action, which give rise to some pattern of interaction. Conceptually, individuals calculate their choices by comparing the "cost" and "benefits" of alternative actions. In the particular circumstances faced by individuals, a "cost" is any perceived "obstacle" in choosing some alternative. In contrast, a "benefit" is any perceived "inducement" to choose one alternative over another (Oakerson, 1992). Individual choices are therefore conditioned by a perception of obstacles and inducements in a particular environment. In the commons, it is important that individual actions are interdependent; in the sense that how individuals are expected to behave creates the obstacles or inducements for others.

In managing the commons, two strategies that lead the different patterns of behavior are cooperative and defective ones. The mutual co-operations lead to a general pattern of reciprocity (Oakerson, 1992). Conversely, The exclusive defects cause a pattern of behavior as opportunity, shirking or free ridding.

Reciprocity is more or less similar to exchange. But reciprocity is somewhat different from exchange in its lack of discreteness (Oakerson, 1988). Unlike a series of discrete exchanges, reciprocity is more like a single on-going "exchange" over time, a continuing interaction between persons or among a group of people based on mutual expectations of behavior. Reciprocity is also different from exchange in the conditions of action. Reciprocity relies on exposte conditions while exchange is assured by ex ante conditions. In reciprocal relationships, each individual contributes to the benefit of others with an expectation that others will do likewise, but without a fully contingent qui pro quo as in an exchange relationship (Oakerson, 1986).

Free- riding, opportunism, or shirking is "easy riding where one contributes less or takes more than expected in a reciprocal relationship (Oakerson, 1988). Whenever

one person cannot be excluded from the benefit that others provide, each person is motivated not to contribute to the joint effort, but to free ride on the efforts of others. The temptation to free ride, if it dominates the decision process, will lead all users to the situation of mutual disaster.

Reciprocity is representation of collective actions in management the commons in which the interests, resource, preferences, ideologies of many persons are brought together, aiming to pursue its common interest. It is susceptible to behaviors of free ridding, opportunism, or shirking. It can be gradually eroded when one individual starts free ridding with the expectation that others continue to cooperate.

Once reciprocal behavior discontinues, and is finally abandoned, a common property resource will become open access. Everyone will compete to exploit the resource without regard to the sustained yields. In this situation, the possible strategies of resource use may include concealment, deceit, cheating, intimidation, threat, and violence (Oakerson, 1992). Therefore, the challenging task in managing the commons is how to maintain reciprocal relationship among the resource users.

The pattern of resource use by individuals and the community as whole causes impacts on forest resources and the community itself. According to Thomson (1997), there are many criteria that can be used to assess the impact of the incentive structure on the resource base and on members of the community. Among them are four following criteria:

- The efficiency of how the resource in being used: Are resources being used to their maximum potential? Is there wastage?

- The equitability of resource exploitation: Do some people have greater access than others? What is the base of discrimination in resource access? Is the system "fair"?

- The stainability of resource use: Can these use patterns be sustained into the future? What is the basis of discrimination in resource access? Is the system "fair"?

- The preservability of biodiversity: Are divers species being protected? Are some species becoming dominant at the expense of others?

However, there are no absolute 'rights' and 'wrong' in such analysis and, in fact, there are likely to be trade-offs in terms of the various criteria that are use to evaluate the outcomes.

2.4 Design principles for useful common property resource institutions

From examining various cases of successful long enduring, self-governing common property resource (CPR) institutions, Ostrom (1990) constructs a set of attributes that characterize all those robust CPR institutions. Then she refers these attributes to as "design principles" to mean " an essential element or condition that helps to account for the success of those institutions in sustaining the CPR and gaining the compliance of generation after generation of appropriators to the rules in use".

(1) Clear defined boundaries

The boundaries of the CPR as well as the membership of the eligible users must be clearly defined because it is critical to distinguish the common property resource from the open access. This is a very first step in managing common property resources.

(2) Congruence between appropriation and provisions rules and local conditions.

The operational rules have to reflect the physical and technical attributes of the particular CPR and correspond to the specific conditions of the user community sitting. For example, in the complex irrigation system, it is impossible for a single set of rules defined for all irrigation system to deal with the specific problems in distinctive local setting.

(3) Collective-choice arrangements

The decision-making arena provides a chance for individual to participate in modifying the operational rules. The CPR institutions characterized by this principle are able to adjust to local circumstances, because the individuals who directly interact with one another and with the resources can modify the rules over time so as to better fit them to the particular condition of the resources and the specific characteristics of their setting.

(4) Monitoring

In most cases, all co-users are expected to monitor the CPR conditions and detect the behavior of each other. The monitors, however, may be authorized by the decision makers to take responsibility for monitoring tasks.

(5) Graduated sanction

Appropriators who violate the operational rules are assessed graduated sanctions depending on the seriousness and context of offenses. First time offenders who are in desperate needs of the resources for subsistence are likely to get a lenient penalty. Serious and repeated offenses will be heavily sanctioned.

(6) Conflict-resolution mechanisms

When the conflicts in the user community could not be solved by the operational rules, related parties have rapid access to low cost local arenas to resolve such conflicts. Local leaders are usually the primary conflict resolves.

(7) Recognition of rights to organize

The local institutions established by resource users to govern the use of CPR not challenged or dismissed by external arrangement of the state authorities

(8) Nested enterprise

Almost local institutions are organized in multiple layers of decision-making arenas such as local, regional, and national jurisdictions. All of the more complex, enduring CPRs meet this last design principle. Creating operational rules at the local level, without rules at the other levels, will produce an unstable system that may not last over the long run.

Even though these principles are still quite speculative, they provide useful criteria for the examination of local institutions of community based forest management for the study.

2.5 Evolution of forestry policies in Vietnam: opportunities for community forest management

Along with changes over time in the objective and strategy of forest management, the forest policy has been accordingly evolved. Policies on forest and activities need to be understood in the context of the role of forestry and agriculture in the country's overall socio-economic development.

- **1954 to 1965**

Along with the establishment of agricultural co-operatives, most forests were nationalized and put under the management of co-operatives and state units. Co-operative management for forest production concentrated on forest logging to sell wood and create land for cropping. Until 1961 the Department of Forestry of the Ministry of Agriculture was responsible for forest production. The improvement of forest production include the strengthening of the production organization, its management, as well as the expansion of the number and area covered by state lumber yards (later to be called State or Regional Forest Enterprises) (MOF, 1991; Lung, 1998a). The function of forest policy was to "serve as a basis for the development of agriculture" and this was the rationale for combining agricultural production with forest production. In that period, the role of forest was neglected for livelihood of the local people.

- **1965 to 1976**

The administrative framework in the period 1965-1976 was characterized by a centrally planned system. The agricultural policy emphasized the cooperativisation of production in the uplands. Agricultural production should be intensified, and both food and "industrial" crop production was to be increased with an emphasis on irrigated rice production.

Forestry policy concentrated, as in the previous period, on increasing production, and was oriented towards serving the agricultural (watershed protection) and industrial production while increasing the production of timber and non-timber forest products. Timber exploitation was restricted, however, by the lack of infrastructure and labor. In 1968 local authorities were given more authority over the management of forests (MOF, 1991), and the General Department of Forestry became more of an advisory body. Major wood industries were transferred to the General Department of Forestry at that time. A parallel organization of "People's Forestry Protection Units" was built on provincial and district levels (MOF, 1991).

Under the central management system, the state paid no attention to local people's participation in management activities. State policy often placed local users of forest resources in direct conflict with state managers. By excluding local residents from access to forestland, the policy separated them from a resource that was a crucial source of cash and subsistence goods. It deterred people from using the forest through a sophisticated legal system based on fines and an expanding state agency focused on forest protection. Local people came to see that the forest was being administered by the forest protection units and by a state that gave them no rights over forest resources. Likewise, state officials became convinced that local people were a major threat to forest protection.

- **1976 to 1986**

Agricultural policy stressed the development of large-scale production units as well as the development of surplus production of cash crops. Attempts were made to

stimulate production in both the collective and state sectors. New approaches were tried, such as the allocation of land for agricultural and forestry "stabilized" production and agro-forestry.

The goal of forest policy was to increase production and support national defense. The greatest part of forestry production was under state control, and this resulted in over exploitation, because production quotas were set based on state needs rather than the productive capacity of the forests (MOF, 1991). The goal of achieving surplus production of cash crops was predominant during the first decade of the Socialist Republic and also in the forestry sector. However, by the mid-1980s the forest management emphasized protective activities more than previously. Since most designated forestland was situated in mountain regions where most of the ethnic minorities lived, forest policy planners also began to consider policies for ethnic minorities. In particular, solidarity between the ethnic groups was addressed in the forestry policy guideline No. 29-CT/TU/1984: on strengthening forest and land allocation, forest construction and the organization of agro-forestry (MOF, 1984). In this period, the state became to have a little attention to the relation of forest resource and local people as well as their affects on forest protection.

- **1986 to 1990**

Since 1989, the Government has initiated a process to move from a centrally planned to a market driven economy--the policy commonly known as "*doi moi*". The process of structural transformation has been extended to agriculture. The government has decollectivised agriculture and allocated most agricultural lands to the farmers with leases of 20-50 years. The co-operative system was reformed to become more of a service function. At the same time marketing has been liberalized. These steps resulted in a rapid increase in agricultural production. In particular, rice production has risen rapidly and Vietnam is now a major rice exporting country.

In this period the objectives of forest policy included among other things an expansion of forest plantations by state forest enterprises, organizations as well as households (SPC/UNDP, 1990). The strategy towards the year 2000 outlined a

continuation of several programs. The main ones concerned reforestation and exploitation or what was often called "rational utilization" of forest resources. The program concerning the protection of forests in the upland region addressed mainly watershed management (MOF, 1991). This program was a follow-up to the 1975 Forestry Act and was further elaborated by the 1986 regulations concerning forest protection (Circular No. 1171/QD 1987). Another major forestry program concerned training and education which was linked to the national forest research and extension program (MOF, 1991).

The changes in economic management following the Sixth Party Congress in 1986 stimulated further reorganizations in forestry production, which had been the subject of discussion in the forestry branch during the 1980s (Vu *et al.*, 1986; Decision No. 801/QD-1986). Major changes occurred in the management of sate forest enterprises. The state sector was given more financial self-reliance, which meant that subsidies were cut. In general, attention shifted from forestry production by state and collective units to plantations carried out by Forestry Enterprise workers' households and other households under contract to the Forestry Enterprise.

In 1991, a functionary of the Ministry of Forestry called the new orientation "social forestry". Social forestry development in the administrative framework of that time meant the stimulation of forest production by means of land allocation to other branches, ministries (since 1983) and to co-operatives, schools, the military, and households (since 1986) (Huan, 1991). Officially, it was perceived that implementation was hampered by "technical restrictions" (Mai, 1987).

- **1991 to the present**

In line with the overall reform program, the government has also been taking steps to restructure and transform the forestry sector. The National Forestry Action Plan was formulated in close collaboration with the international donor community. The process started in 1989 when Vietnam applied for participation in the FAO sponsored Tropical Forestry Action Plan. The first step in this process was to undertake a forest

sector review that was completed in 1991, in the form of a National Forestry Action Plan (NFAP). The review process was important in that it brought together Vietnamese and international experts, provided a series of reports about the state of forestry in Vietnam and put in place the guiding principles for forestry development. These were decentralization and peoples participation; restructuring of institutions dealing with forestry to make them supportive of local activities; environmental protection; and increasing output and incomes of people living in forest areas.

From 1991 to the present time, a system of laws, policies and other mechanisms have been put in place to guide forest development and protection (including such things as forest land allocation) to try to achieve sustainable forest management (Lung, 1998a; Duc, 1998). These include the Law on forest protection and development (1991); Land law (1993); Decree No. 02/CP (1994); Decree No. 01 (1995); Decision No. 327/CT (1992) and others.

The Program 327 (which started in 1992) was the first large-scale attempt to involve households and other organizations directly in forest establishment activities in terms of sharing in the costs and benefits. The program was not universally successful, and many of the funds were used to support inefficient state bureaucracies. However, valuable experiences were gained (MARD, 1998a; Lung, 1998b). The Program 327 has now evolved into the 5 million ha program (Decision 661/ QD-TTg dated 29/7/1998 and Inter- circular No. 28/1999/TT-LT dated 3/2/1999) which is designed to establish five million ha of forest between 1998 and 2010.

The participation of local people has really been encouraged in forest management since 1991. Accordingly many social forestry projects have been carried out throughout the country, promoting patterns of community forest management. Yet the definition of community forestry has until now not been stated yet in the legal documents and community forest is not seen as an object of regulated forestry policies such as forestland contracts, allocation and benefits sharing.

Although still having existed de facto, some investigations and researches on community forests showed that there usually are four traditional forest categories: *Upstream forests to retain water:* local community makes planning on water catchment area, protects drinking water sources, prohibits every form of forest exploration and cattle raising, and additionally plants trees with dense leaf canopy to keep water; *Forests for exploration of timber:* is the place for exploiting firewood, timber and collecting medicinal plants. Protection and management on this forest category is based on the hamlet and village's rules. Also, some specific rules and regulations on exploitation have been designed; *Spiritual and ghost forests:* is planned for worship and as cemeteries. Each individual in a community takes responsibility for protection and additional plantation of flowers, large-shade trees and installation of statues. *Forests containing historical and cultural relics:* is the place that is used for cultural entertainment, relaxation, and weddings. Ornamental trees are additionally planted here.

In conclusion, people, especially people living around or in forests, considerably depend on forests for their livelihood, which in turn is their motivation to protect and manage the forests. Beside the forest management regime of state, the community forest management regime emerged in the early 1970s and has been developed widespread over the world in general and the region of Southeast Asia in particular. This regime has obtained much attention from researchers as well as policy-makers for its strong points compared to the state forest management regime. Studying community based forest management is the systematic approach, which refers to three indispensable components such as commons forest resource base, community, and its institutional arrangements. This study is the process of analyzing causal relationship between these components. In the context of Vietnam, the development of community forest management is in line with the evolution of the state policy. It was not until the early 1990s, the community forestry was really developed in the country. It is necessary to deal with the state policy while analyzing the community forest management regime.