

CHAPTER VI

LOCAL INSTITUTIONAL RESPONSES TO NTFP COMMODITY CHAIN

The challenge of managing forest of commercial NTFP is to promote economic development by maintaining and even increasing production while simultaneously maintaining or improving ecological conditions (Neumann and Hirsch, 2000). The discussion of forest management, therefore, encompass a wide range of social, economic, political and ecological questions. In previous chapter, through access mapping along with NTFP commodity chain, various aspects, which affect the commodity flowing were examined. In this chapter, in turn, I concentrate on issues of institutional dynamics to explore how political, social, ecological and economic elements of management in response to the NTFP commodity chain.

Institution, as Agrawal and Yadama (1997) argued, is the mediator of various elements, which ultimately affect the dynamics of ecological condition and social relations. Moreover, institution, on the one hand, is the rule which regulate how and in what way the performance can be conducted; on the other hand, poeple's day-to-day practice are in the process of rule-recreating. Therefore, to examine local institutional response to commodity chain, three mechanisms are explored in this chapter: 1) soical ties, 2)social and geographic identification, and 3) shifting between price-based and non-price-based machanisms. Those three dimensions are explored in term of local responses to access to commmodity chain, which might further stress on the poltical, cultural and social elements in guiding people's economic behaviors and benefit distribution along with NTFP commodity chain. Besides, joint managment institutions are also examined to understand how local community manage their NTFP resource in cooperation with local government, and how local government respond to NTFP commodity chain.

6.1 Dynamic Social Ties in Local Commodity Chain

Social ties used to be explained as patron–client relations. That is an institution which links patrons and clients by means of dyadic ties, and those purpose many include ritual, economic, and/or political elements (Seymour-Smith, 1986). For the patron–clients ties, usually, the patron provides favors, services or protection in return for loyalty, political support, and maybe economic control (Jary and Jary, 1991). Therefore, the social tie/patronage associated with the clients' (which might be subordinate groups or individuals) dependence to the patron (which might be superior groups or individuals). However, although that dependence can be viewed as interdependent relations between patron and client, the patron is more powerful actor. In terms of economic relation analysis, the understandings of interdependence in patron–client relation may differ from economic interdependence, since the power that different social actors carried might shift by negotiation process in economic activities. In other words, there may not be an absolute “patron” who is more powerful than the client at all times. However, in some cases, social actors also tend to tie to authority to establish the patron–client relationship in order to gain access to market or flexibility in trading or a certain usufruct of resources.

The local Simaoese traders, in the previous period, tied to the outside traders were a kind of patron–client relationship. The outside traders who had knowledge in market dominated the local bamboo shoots market. The only role of local Simaoese traders was attempting to act as labor to collect the products. Their capital came from outsiders, and they had no power to negotiate price or quality with outsiders. Instead, they tended to pay respects and show their loyalty to outsiders in order to maintain their relations for engaging in the trade. In the contrast, if some one took the money without providing products, the person could never trade in Simao any more. As one local traders explained: “domination of outsiders in Simaoese bamboo shoot market lead Simaoese traders to tie to outsiders. Even though we know that the outsiders reap most of the benefits from the trade, we have to get well along with them. It is because they provide the opportunities for us to benefit from the bamboo

shoots trade.” Therefore, he further explained: “we have to provide good products and service to them as return”.

Thus, in this case, clearly, the economic means of establishing patron-client relationship is based upon market access. The economic powerful patrons (outsiders) provided local market access to local powerless clients (Simaoese traders). This relationship is accompanied with a bit morality, in the sense of offering potential access to landless and unemployed people. In return, the economic adaptive practice of Simaoese is to pay respect and show their loyalty by well accomplishing collection of NTFP from villagers. The exchange service maintained their relationship. In this case, on the one side, the patron might continue to gain the products, and on the other side, the clients might earn benefit from commercial NTFP. It contributed to a sharing of local market between patron and clients.

In 1997, the relationship of patron-client was challenged by social and geographic identification process¹, with the growing concerns of identity as Simaoese. And local traders or Simaoese traders dominate bamboo shoots market through priority of market access, which was granted by prefecture forestry agency. As a result, the interdependent relation had been changed. Previously, although the relationship between outsiders and local traders are economic interdependent, the outsiders/patron has more power to make economic decision in both price and quality, and has more power to control over the local market. At present, since local traders dominate the local market, patron-client relations had been broken down which lead to the changes of social ties in term of power sharing. The new social ties between local traders and outsiders indeed provide their respective access to the different levels of commodity chain. At local level, with priority of market access, local traders has more bargaining power in price and quality. Although, in most case, outsiders still provide capital in advance, local traders now play a role to bridge outsider with local market and their domination role in local market, which

¹ The process of social and geographic identification is discussed in detail in the third section of this chapter.

enhanced their bargaining power.

Therefore, on the one side, local traders tie to outsiders in order to gain more opportunities to do their business in a great amount at local level. They also try to keep the long-standing relation with outsiders to gain trust. Subsequently the outsiders may offer more capital to them in advance. On the other side, the outsiders also attempt to get along with local traders and to tie with them for collecting a certain amount of products they wanted. This long-standing relationship with local traders in locality may maintain their links with higher level actors in the commodity chain, because it ensure outsiders' achievement in collecting the products. Thus, the social ties between local traders and outsiders are more economic interdependent than patronage, and there are no such a superior-inferior relations. It is more or less like partnership relations. These economic-social ties as the institution to maintain social actors' respective access in commodity chain on the vertical dimension.

On the horizontal dimension, local traders also tie with each other in the form of cooperative ties. In the social and geographic identification process, local traders cooperate and group with each other to negotiate for priority of market access in local level. By ties with each other, local traders enhance their bargaining power in negotiation with government, and resist outsiders. Now, they still tie with each other to share market and information. As one local trader explained, without ties with each other, government might not notice them and grant the priority of market access, and they would still work for the outsiders as employee (clients).

However, to gain priority of access, local traders need to tie with the authority/prefecture forestry agency. This social tie is a kind of patron-client relations. Enforcement of market priority of access need the Prefecture Forestry Agency's action. Besides, the agency is also responsible to inspect the products that traders transported. In practice, the forestry agency does not inspect the local traders' cargo, but they provide the protection for local traders marketing locally to avoid outsiders involvement. In return, on the one hand, local traders politically support prefecture

forestry agency regulations, such as obeying the rule of prohibiting bamboo shoot collection after harvesting period; on the other hand, in term of taxation, local traders tend to pay tax voluntarily and on time. This social tie (patron-client relation) assures the powerful actors (Prefecture Forestry Agency) provide rewards and services to weaker (local trader) in return for loyalty and support.

Furthermore, in Chapter V, various social ties linked different social actors and agencies were identified, however, without detailed discussion. Since focus on local institutional responses to commodity chain, I will not go further. Moreover, local traders and transporters also tie with villagers to gain benefit from commercial NTFP. Those are more kinship and friendship relations.

In short, social ties are existing in various types, which may go beyond to the understandings of patron-client relations. In the patron-client relations, weak actors may also tend to tie with other actors to negotiate and challenge patronage in order to share power. Economic-social ties in the commodity chain are more or less like a partnership, which may be established after economic patronage is broken down. Thus, this process provides a picture of dynamic social ties in local NTFP commodity chain by examining the power struggle process.

6.2 Social and Geographic Identification in Local Commodity Chain

In the previous chapter, social and geographic identity was mentioned as a mechanism, which supports local merchants and Simaoese companies to gain priority of access to NTFP commodity chain. However, the emergences of social and geographic identity in guiding local trade cannot be sufficiently examined without understanding process of identification. As Sahlins and Scott (2001) argued, in the making of modern world, we should revise current thinking about “identity” by substituting the concept of “identification and by recognizing the group identifies are dynamic process”. In the other words, by emphasizing on the concept of identification, to examine identity of a group should make insight into the process of

identification. Thus, in the process of identification, social groups or social actors are apt to group themselves by what Sahlins and Scott² (2001) called “membership”, “geographies of identification” and “placement and displacement”. According to them, “geographies of identification is ways in which.....identities are defined by territory, landscape, culture, and rites, and how the norms and practices of popular forms of spatial identification inflect these geographies of power”(ibid.: 8).

The social and geographic identification, in term of guiding access to commodity chain, in fact, occurred in “central plan” economic era. As discussed in Chapter IV, before market reform, bamboo shoot had already been commoditized. The chain was organized following prefecture government plans, and the Public Trade Association played the role to bridge rural and urban society in term of production exchange. However, in order to promote urbanization, rural products were devalued. Government price control strategy affected not only NTFP, grains, but also various crops and cereals. In this period, the social and geographic identification was a kind of official and state identification of grouping urban and rural groups separately. The aim of this identification was to favor urbanization and industrialization.

Later, after market reform, more flexibility in trans-regional trade was provided associated with opening and reforming policies. More and more non-Simaoese started to be engaged in the local trade of bamboo shoots with respect to whatever fresh bamboo shoots and dried one in Nuozhadu Nature Reserve. In this period, as discussed in previous chapters, non-Simaoese traders, particularly the traders came from Zhajing province and Guandong province almost monopolized the local market of bamboo shoot trading. It is because, on the one hand, priority in market reform policy provide the traders in Zhajing and Guandong province an opportunity to have

² Sahlins and Scott (2001) emphasized the distinction between official and vernacular identification. That is why they incorporated membership, placement and displacement into the identification approach. To be broad, in this case, the author does not distinguish official and vernacular at the first place in analysis. Instead, taking Chinese context into consideration, geographies of identification are highlighted, because in the process of identifying Simaoese, social and geographic factors are stressed related to gain priority of access to commodity chain.

more experience in marketing based upon market mechanism than Yunnanese, on the other hand, knowledge in market mechanism and long-standing relations with demanders enable those outside traders to have more potentials to link NTFP supply with outside demands.

In the practice of trading, in that period, those outside traders have two channels to engage in local bamboo shoots trading. First channel was to collect products in small amount from local/Simaese traders or transporters, then sell the products to outside demanders. Second channel was to directly purchase the products from villagers, then sell the products to their customers, who are non-Yunnanese. For both of those channels, the outside traders were live in the Simaese to well organizing their trade and control the local bamboo shoot market.

Moreover, with regard to the first channel, the local traders or transporters play a role more or less like employee of outside traders to collect products from villagers. In the practice, hence, there were no any negotiation activities conducted between local traders and outside traders in response to both quality and price of bamboo products. The local traders and transporters were busy in establishing good relationships with outside traders and following outsider traders' commands so as to maintain their role in the local NTFP market. In the contrast, the local/Simaese traders bargained in term of both quality and price with NTFP gathers so as to gain cheapest price with high quality, which might assure their profit and maintain their relationship with outside traders. Regarding the second channel, the outside traders also bargained with NTFP collectors to maximize their benefit.

Therefore, in that period, there were two social and geographic identification processes. First, villagers started to form themselves as farmer groups which are opposite to businessmen (whoever Simaese or non-Simaese). This identification process, however, do not have much effect in terms of guiding NTFP trading. Second, local traders identified themselves as Simaese, who is opposition to outside traders. In the second process of identification, local (Simaese) traders were

aware that they were gradually losing their control over the local market, even though they still have access to it. As a result, the local traders cooperated and formed into local groups in order to negotiate for strengthening their control over the local market. Furthermore, Simaoese traders also cooperated with villagers to enhance Simaoese access to NTFP commodity chain. In actual trading, the villagers tended to sell their products to local traders, instead of selling directly to outside traders.

In the later period of this social and geographic identification process, the Simaoese and villagers tended to emphasize their identity as Simaoese in term of both socially and geographically. Meanwhile, this identification process also enhanced Simaoese (both official and vernacular) awareness of their identity in the territory of Simao prefecture. Consequently, negotiation activities between local villagers/traders and outsider traders became stronger and stronger. On the one hand, the villagers tend to sell most of their products to local traders in order to facilitate local traders' access to commodity chain without much bargaining in price and quality with respect to the first channel. Regarding the second channel, they, in the contrast, bargain with outside trader seriously in term of both price and quality. On the other hand, the local traders manipulated in price and quality determinations in cooperation with each other, while they sell their products to outside traders. Subsequently, according to my interviewing with outside traders, Non-Simaoese traders realized that there is an invisible barrier in trading at local level, As the one of the outsider said: "Simaoese do not cooperate with us in trading".

In 1997, the local traders had carried out a very tough negotiation activity. They found out that their negotiation with outside traders only minimally enhanced their market access. But, outsiders still dominated and controlled the local market. Therefore, local traders started to negotiate with the Prefecture Forestry Bureau to request priority of access to collect bamboo shoots in Nuoza du Nature Reserve, and in the mean time to limit outsiders' access. The traders often claim: "we are the same Simaoese, we should consider the development of our motherland people; the

outside merchants had already benefited a lot in the early period of market reform; now, it is the time to promote Simaoese development". Besides, united local traders attempted to compete and buffer marketing opportunities of outsiders in Nuozadu Nature Reserve. As a result, local merchants gained the priority of access from the Prefecture Forestry Bureau, and started to increase their local control over the market.

Furthermore, non-Simaoese found that there was also another practice, which limited their market access in Simao. One non-Simaoese traders said: "while I transport my products, I am always subjected to inspection by local forestry agency and taking long time for this inspection, which would lead to woodization of bamboo shoots, eventually increase cost of my trading." The trader further said: "it is because Simaoese traders might tell officials that outsiders cheat in weight when paying tax, and official believe local merchants; therefore, officials tend to re-inspect the weight of our products".

On the local forestry agency side, the officials explained that, on the one hand, to grant priority of market access to local merchants is helpful for managing the market and ecology effectively, because the Simaoese traders' market performance are more manageable. On the other hand, because the outsiders have experience in market mechanisms, the officials perceived that outsiders tend to cheat in the trade which would be their extra-benefit derived from. Thus, officials are supposed to re-inspect the outsiders' products and their receipt of tax. In addition, notably, one interviewed forester said: "Simao is underdeveloped region; therefore, priority of market access to local merchants will promote the development in Simao, and income distribution between coastal region and mountainous region."

On the other side, as Sahlins and Scott (2001) highlighted, the identification is "dialectical process" between official and vernacular. Therefore, in this case, while the Simaoese traders negotiated for priority of market access and maintained their market access in cooperation with officials, the non-Simaoese traders also conducted

enormous negotiation activities in response to Simaoese social and geographic identification, which excluded or restricted their access to trading. They blamed it is “Regional Protectionism” (*difanbaohuzhuyi*), and claimed it would limit and reduce competition in NTFP marketing, which would subsequently constraint the development of the bamboo shoots industry. One outside merchant who used to have access to local bamboo shoot trade said: “a priority given to local merchants have huge impacts on my business”. He further complained that if there are no priority to local merchants access, in fact, local merchants could be eliminated, because there are 2 or 3 non-Yunnanese merchants who have adequate capital to control this local commodity chain. In short, outsiders negotiated for equal access to local commodity chain, simultaneously, in the process of Simaoese identification. There were no positive consequences for them, however. The officials continued giving priority of market access to local merchants. In most case, as a result, some of outsiders have started establishing relationship with local merchants to trade at local level, and put more concentration on later stages of the NTFP chain.

To summarize, the dialectical process of identification are manifested through the various forms of negotiation which carried out by different groups in responses to commodity chain. In process of social and geographic identification, the institutions, which guided market access, are undergone the process of maintained by local merchants, and challenged by outsiders. In responses to commodity chain, the social and geographic identification is also dynamic. Clearly, in the process of identification, social and geographic identity as Simaoese enhanced local access and control of local NTFP market.

6.3 Shifting Between Price-Based and Non-Price-Based Mechanisms in Local Commodity Chain

As discussed in Chapter II, the contemporary studies of people’s economic performance are mainly relying on the perspectives of neoclassical theory, cultural mortality and policies. However, Tulley (2000) pointed out, before reifying the

single theories at the first place for research, it is better to understand local economic behaviors are guided by both price-based and non-price-based mechanisms. For price-based mechanism, it refers that structural form of the market (i.e. number and concentration of firms, products differentiation) determines market conduct (the economic behavior of participants), leading to the eventual performance of the market. In the other words, whatever people's economic decision-making or the articulation of seller and buyer is depended on rational choice of products' price in consideration of function and quality of products. The participants tend to maximize their profit by cheapest price with high quality and comprehensive function of products. On the other side, for non-price-based mechanisms, it stands for that people's economic behaviors are actual complex, which is locally-instituted and culturally-specific adaptive system of production and exchange. Thus, participants' economic behaviors and decision making is in fact socially and culturally embedded by their creation of locally adapted market institutions and construction of cultural meaning.

For NTFP commodity chain, the organizing of chain also regulated by both price-based and non-price-based mechanisms. Hence, to understand contextualized economic transaction is most important. In this sense, as Gudeman (1992) argued, to make insight into how social and cultural rules and morality as well as politics provides a context for all rational calculation under global influences is an approach to understand both price-based and non-prices-based mechanisms worked locally. Beside, taking long historical context and specific situation into considerations, both mechanisms might shift and articulate in people's actual practice.

In the collectivization period, as examined in previous chapters, NTFP commoditized process are guided by prefecture government. Setting up Public Trade Association to collect rural products is one form of those economic mechanisms. In addition, "central plan" which was designed by prefecture government also impacted on the marketing behaviors and shape the organizing of NTFP commodity chain. The fixing collecting price of NTFP regulated the participants' economic

decision. Therefore, under collectivization policy and central plan economic circumstance, there was only “yes” or “no” decision to adapt that non-price-mechanisms/policies in guiding market performance, rather than bargaining and negotiation for both price and quality, and then make the decision of “yes” or “no”. Hence, prior to making decision of “yes” or “no”, there are no space for individual to make decision of whether negotiation and bargaining. However, it should be noticed that price-based mechanisms also existed. As mentioned above, in practice, Huibinhe villagers rarely went to sell their NTFP via Public Trade Association, because of inefficiency and unprofitable. By the contrary, villagers concentrated on agricultural production for solving food shortage. In the other word, since selling their NTFP can not be an alternative of their subsistence, there are few NTFP are commoditized. Thus, the individuals’ calculation in responses to broad environment of non-price-based mechanisms in guiding market is regulated by their understandings of price-based mechanisms.

On the other hand, the collectivization policy also planned the village to sell certain amount of rural products to Public Trade Association for supplying to urban consumption. Thus, although most villagers were not willing to sell their products, to accomplish prefecture plans, there were some products to be sold. In short, at collectivization and central plan economic era, even though the broad circumstance of market channel was organized by politics/non-price-based mechanisms, individual decision-making was mainly influenced by price-based mechanisms. However, to accomplish government commend and plan, individuals also shift their performance to match government need. There was both price-based and non-price-based mechanisms situated and shifted in guiding participants’ economic decision making.

Later, after the market reform, government role in market was reduced in term of both price control and market channel control. Based on neoclassical theory, price-based mechanisms are introduced, and market competitions based on competitive advantage are advocated. Thus, the broad and main circumstance in

guiding market performance shifted from non-price-based mechanisms of polices to price-based mechanisms. The gradually decreasing role of government also promoted the flexibility in marketing, which had been conceptualized as market liberalization or deregulation of market. Whatever is called the main purpose is to promote price-based mechanisms as “invisible hand” in guiding market economy rather than non-price-based mechanisms of government politics as “visible foot”.

However, in actual practice, the government role is not eliminate entirely, and there are also international force regulates organization of NTFP commodity chain with the increasing role of price-based mechanisms. Both of factors affect local economic performance and practice. In term of resin, as examined in last chapter, prefecture government controls the collection price until now in order to benefit rural resin tappers. The fixed collection price is much higher than it in the market. In 2001, for instance, the market price of raw resin in the field was RMB 1100 up to 1200 per ton; however, the prefecture government fixed it at RMB 1600 per ton. Hence, even though there are market price in guiding resin collection, Simao resin factories had to spend RMB 400/500 more than market price to purchase resin from farmers.

In this case, the officials’ price was welcomed by the villagers. They would like to make their economic decision as well as resin gathering decision based on this kind of non-price-based mechanism. As one villagers said: “the fixing resin price is very good; it is the incentive to efficiently use pine forest; we would like to sell our products to factories based on government’s price”. In contrast, the resin factories complained a lot about price control. They blamed this price control affected their abilities in market competition, and eventually affected the factories’ survival. Therefore, the factories negotiated with prefecture government to abolish price control. The factories also listed a number of disadvantages of price control to the prefecture government. As a result, government has now set a so-called “guiding price” for resin purchasing, which actually is the minimum price in collection of resin from local villagers. However, this minimum price is also a bit higher than

market price. Thus, in practice, most factories use this “guiding price” to purchase resin from villagers. At the higher level of the commodity chain of resin, quota system set up by EU and the export rights set up by the central government also shapes the chain and participants’ economic performance. However, since the focus of this study is at the local level, I will not go further. Notably, in term of the resin commodity chain, after liberalization of market, non-price-based mechanisms, particularly politics factor in price control, continue to guide social actors’ economic behaviors.

In term of bamboo shoots, accompanied with market reform, a broad environment of price-based mechanisms started to guide social actors’ economic performance. The abandoning of Public Trade Association and liberating trans-regional trade provided outside traders involved in local market, as mentioned above. However, in case of Huibinhe community, people’s economic performances were shifting from price-based concerns to non-price-based concerns after commercialization of NTFP. Previously, people made their decision in price-based consideration during the collectivization period when facing government, and in the early period of market reform while facing outside traders. Nonetheless, as discussed in last section, with the growth awareness of social and geographic identity, the villagers tended to sell their products to Simaoese traders instead of outsiders, even though in most case the outsider would offer a bit higher price than the Simaoese trader. A villager said: “selling products to Simaoese traders is better, since our *LaoXiang*³ will never cheat us. Therefore, we need not to pay attention to negotiation with price and quality. And selling products to the *LaoXiang* can get along well with them. If there are emergency occurred, we could ask for financial support from their. Selling products to them also benefits all Simaoese.” Thus, this social and geographic identity as non-price-based mechanisms determine villagers’ economic decision-making and the articulation of sellers and buyers. However, in contrast, when villagers face outsiders directly they might bargain and negotiate for

³ *Lao Xiang* is the Chinese term to call the people who come from or born in the same motherland, which can be broadened as same nation or narrowed down as same village depends

the price and quality.

In another case, villagers sold their fresh bamboo shoots to the transporters, which normally are their relatives or their friend's relatives. With those kinds of kinship and friendship relations, NTFP extractors make the decision to sell products to those transporters without negotiation of price and quality. As one transporter explained, the friends and relatives sell the bamboo shoots to him is actually to help him, because he is a peasant without a job and sufficient land. In return, he also offers free transportation to his relatives and friends.

In sum, the economic performance and decision making of villagers, factories and other social actors are guided by the shifting between price-based mechanisms and non-price mechanism. Both factors affect people's economic practice. In the sense of contextual economic practice, people's decision making might vary with species, the person they do business with, as well as time. It reflects how both price-based mechanisms and non-price mechanisms guide market practice, particularly in the case of villagers' practice. In the case of resin factories, they negotiated with government to shift non-price-based mechanisms to price-based mechanisms. The Simaoese traders negotiated for more non-price-based mechanisms in guiding market access. Thus, the negotiation activity as a force pushes those mechanisms shifting back and forth. Besides, a broad circumstance between price-based and non-price-based mechanisms shifting might affect local economic practice. However, the most mechanisms local people referred is locally-instituted and culturally-specific adaptive systems.

6.4 Joint Management in Response to Commodity Chain

Although joint management practiced for a long period at the local level, the term itself in fact was formally introduced by Sino-Dutch Project for Forest Conservation and Community Development in Yunnan. This approach is aiming to

on the scope. (for see detailed discussion in Chapter VII)

integrate local communities into resource management, particularly inside and surrounding the Nature Reserves in Yunnan. This approach that Sino-Dutch project adopted, therefore, is a participatory resource management which attempt to formalize previous joint management institution. This institution as the local responses to NTFP commodity chain play a key in resource and market management. In this section, instead of examining the institutions itself in a integrative way, local community and local government's role and response in joint management institution would be explored respectively to understand how each actor understand this institution and how they practice under this institution.

6.4.1 Local Community Adaptive Strategy

Local community's strategy in term of commercial NTFP utilization is adaptive strategy. There was no such extensive commercial use before market reforming, and the commercial NTFP has currently emerged . For both resin and bamboo shoot, there is an adaptive process to commodized NTFP use. In this part, therefore, I attempt to examine the local adaptive strategy of those two products separately to present a comparative perspective of local institutional responses to those different commodity chains.

A. Resin

In previous chapters, I discussed that there was no resin tapping performance conducted by local villagers before 1992. And resin tapping in Huibinhe community is under joint management. The resin commodity chain was established in Huibinhe after 1992. Only by obtaining a tapping license would villagers have access to resin resource. According to formal regulations, the licenses would be issued to the persons who had participated in training before 1992.

However, there are some villagers who did not realize the value of resin and failed to attend the training. Later, after obvious value of resin was recognized through inquiring the pioneer tappers. Those villagers applied for the licenses from the prefecture forestry agency which is flexible to involve more local communities into commercial resin. On the other hand, it is primary period of commercializing

resin. There are some of pine trees that have not yet been occupied. In order to fully use the resources, the forestry agency would like to issue more licenses to the local community. Therefore, as a result, the agency agrees to issues licenses to residents who can learn tapping from their neighbors, and the neighbors guarantee to teach them. In an adaptive strategy in response to commodized resin, both government and local villagers cooperate to aim for efficient resource use, and local economic development.

In theory, the most important part of participatory management or joint management is to decentralize usufruct to local villagers. In the Nuozhadu Nature Reserve, decentralization of resin management is conducted in correlation with expanding resin industry. As mentioned above, villagers can tap resin not only in freehold forest and collective forest, but also state forest. In other words, the tapping activities can be performed throughout the nature reserve area, and the boundaries of tapping region between communities are delineated upon traditional inter-communities boundaries. If traditional boundary is unclear, the officials associated with villages' headman would decide it. Consequently, decentralization of usufruct benefit local community through expanding NTFP utilization.

However, the right without monitoring might lead to abusive use. Both rights responsibilities should be defined. Villagers harvesting should obey the regulations of resin tapping. They should tapp adult pine; a tree is ready for tapping when they grow up to 25cm diameter⁴, and tap only on one side; the pine should be abandoned after 40 cm distance is tapped. In practice, local residents followed the regulations strictly. They sometimes even manage better in order to gain continuous support from prefecture forestry agency. For instance, to expand the production, the villagers tend to harvest the tree which is difficult to tap, rather than reduce the standard of regulation in their tapping performance. Besides, villagers also selected a forest guard to monitor the institution implementation of resin management.

⁴ The diameter of tree is measured as the diameter at 125 cm above the land.

However, the regulatory institution building is still mainly conducted by the forestry agency. The involvement of villagers is more or less like consultants in implementation of institution. Generally, the officials indeed have taken into account local customary rights; and further integrate them into formal institutional arrangement. Local residents cooperating with the officials can be seen as their adaptive strategies in order to promote economic development on the one hand, and to gain officials support on the other. Moreover, their adaptive strategies also can be manifested through their self-monitoring and practices in resin tapping. These joint management institutions was formalized after 1999, the year the formal joint management committee was established.

B. Bamboo Shoots

Bamboo shoots were commercialized after market reform, however, without much notice by government officials. In 1999, the government associated with the Sino-Dutch project supported an establishment of joint management committees. Of course, the institutions are not just concerning bamboo shoots, instead, the project take into account the whole ecosystem on which Huibinhe community depended.

Notably, under the market intervention, the tradition of bamboo shoots management was broken down. In the other words, bamboo shoots property regime became *de facto* open access after market reform. This situation has led to bamboo forest degradation. Therefore, in response to market reform and commodity chain building, the establishment of the joint management committee is the landmark for starting to focus on bamboo shoot harvesting management as well as other NTFP resource. It is also the period for building organization and institutionalization of conventional joint management. To understand this organization, table 6-1 presents committee members of this organization, and their social, political identity, their the responsibility in the committee.

**Table 6-1 Joint Management Committee Members
in Huibihe, Nuozhadu Nature Reserve**

Name	Gender	Age	Ethnicity	Education level	Title in committee	Official Title	Responsibility
Xie zhaorong	Male	21	Han	High School	Director	Nature Reserve Forester	General coordination
Lou qilian	Male	25	Han	Middle School	Vice-director	Village headman	Assisting director
Gao shuimai	Female	40	Yi	Primary School	Vice-director	Villagers	Assisting director, coordination with women
Luo qihua	Male	25	Yi	Middle School	Member	Villagers	Organizing, monitoring
Yang jingde	Male	24	Han	Middle School	Member	Villagers	Organizing, monitoring
Li chaorong	Male	43	Han	Primary School	Member, forest guard	Villagers	Originating, monitoring
Li chenmai	Female	20	Han	Middle School	Member	Villagers	Organizing, Monitoring

Source: Huibinhe Natural Villager Environmental Action Plan, 1999

The above table presents the organization of Huibinhe community joint management committee. As the table shows, the joint management committee is composed of various social actors in order to achieve the common goals in the community. Both Yi and Han people, male and female, villagers and officials are involved. Particularly, each member has his/her responsibility. The management required a monitoring system that aims to check not only the villagers forest use practice, but the organization itself.

Under this organization, and based upon multi-stakeholders discussion, bamboo shoot managerial arrangement was also made to reduce bamboo forest degradation.

- 1) Spatial tenure system is to restore traditional zoning activities for allocating bamboo forest to community, which included freehold forest, collective and state forest. Particularly, inter-communities' boundaries are clarified.
- 2) In terms of temporal tenure system, harvesting bamboo shoot can only be conducted from July to August; extractions of bamboo shoots in other months is prohibited.
- 3) Clear-

harvesting activities are forbidden, rather, at least one shoots must be left with one bamboo tree.

Through those formalized and regulated institutions, bamboo shoots forest would be recovered. A monitoring and organizing by the committee also would assist to reduce continuing damages. In my survey, I also found other related elements, which contributed to well enforcement of those regulations. Regarding the first rule, it reduces conflict among communities by restoring traditions; therefore, it is welcomed by all villagers and communities. Concerning the second, bamboo shoots in Yunnan mainly grow from July to August and is also the period that merchants come to collect the products. After that period, on the one hand, there are a few bamboo shoots growth, which leads to more labor cost for collecting small amounts of product; on the other hand, merchants will gone after that period, since it will spend them more to collect small quantities. Consequently the regulation can be easily implemented and enforced. For the third regulation, I found out that villagers are apt to leave the bamboo shoot which grow deep in the bamboo forest, because it is normally too difficult to go into deep bamboo forest for gathering. In short, those institutions can be well implemented in bamboo shoot extracting. Besides, there are also forest guard and members who are obligated to monitor harvest practice, and to enforce the regulations. However, the rule breaker would be fined. The fines would be used for committee operation⁵, which are contributed to sustainability of institutions.

In Chinese, those regulations are called “*xianghui mingyue*” (local regulations)⁶, “*xianghui*” refer to township regulations; “*minyue*” represent a vernacular mutual agreement. The implications are that those institutions combine official and vernacular regulations, which demonstrated the long history of joint management in China. “*xianghui minyue*” is the main institutional arrangement of the Huibinhe joint management committee. In turn, the organization of committee ensure the durability

⁵ Nuozhadu Nature Reserve Management office, which are supported by Sino-Dutch project also provide some fund for organization operation in long-run.

of institutions. Moreover, the committee also formulate other NTFP management “*xiangui minyue*” to guiding NTFP collection (see table 6-2).

Table 6-2: The Local Regulations (*xiangui mingyue*) relevant to other NTFP management in Huibinhe Community

NTFP	Local Regulations
Mushroom	Encourage to collect for subsistence
	Collection should be done without destruction of forest vegetation
Fodder	To decrease collection of banana stems, collect leaves as fodder instead
	Of the wild banana trees, collect only mother tree instead of youth
	Efficiently use other resources such as melon, as fodder
Medicine	Not allowed to cut tree down for collection
	Try not to dig roots, and can not dig all to roots
	Improve utilization of branches
	Try to domestication of wild medicine

Source: Huibinhe Natural Villager Environmental Action Plan, 1999

Note: Those rules also regulate that all NTFP extracting activities only can carried out in Huibinhe zone. Either going to other zone or taking other villagers for collecting NTFP in Huibinhe zone is subjected to fine.

In sum, local institutions of resin and bamboo shoots as well as other kinds of NTFP listed above were formulated in response to market intervention and the transformation of commodity chain from the “Central Planning” era to “Socialist Market” era. An institutional arrangement is supported and facilitated by externality (Sino-Dutch project). Local adaptive strategies associated with external support in response to commodity chain are playing a key role to sustain resource use and to promote local economic development. Under those circumstances, joint management institution or participatory management institution are formalized. However, regarding resin, even after formal joint management committee established local people still can not be involved in decision making of harvest

⁶ For detailed discussion of local regulations see He and He 2000.

regulations, though usufruct were decentralized with recognition of local forest tenure system. It may be partially resulted from villager's lackings of knowledge in resin management and development. In comparison, institutions of other products, particularly bamboo shoots, are built based upon multi-stakeholders discussion, and local villagers can participate in decision-making. Indeed, joint management institutions promote efficient and sustainable resource use; eventually contributed to local economic and ecological development on one the hand, improve the relationship between officials and villagers on the other.

6.4.2 Local Government Responses

Although the general idea is that any collection of NTFP from the nature reserve is forbidden by law, the Yunnan's nature reserve management practice allow sustainable collection of NTFP from the experimental zone of the nature reserve. The rules and regulations of Yunnan forestry and wild life Nature Reserves (1987) prescribe that "Logging, hunting, cultivation and other activities which are harmful to wildlife and plants are banned in the Nature Reserve", but that "sustainable use and management of forest and wildlife resource are permitted in the experimental area of the nature reserve. Additionally, "on the premise of not destroying natural resources, the native people living inside the nature reserve may engage in plantation, raising and other activities in the experimental areas, under the arrangement and direction of the nature reserve management development.

For Nuozhadu Nature Reserve, there are no zoning activities for neither core zone, nor experimental and buffer zone carried. But, many ethnic villagers are inside the nature reserve. Therefore, the office of nature reserve management in Simao Forestry Bureau has applied the regulation of experimental area management to monitor villagers' production activities in it. As the office head said, the people who live in Nuozhadu Nature Reserve are depending on the forests for their livelihood. After the establishment of the nature reserve, it has already impact on people's economic development. Therefore, officials prefer to use the regulation on an

experimental area to govern the nature reserve. As a result, NTFP collection plays a key for local people who live inside of nature reserve to develop their economy.

However, several changes of policies such as like collectivization, decollectivization, market reform, globalization, commercialization and establishment of nature reserve transformed tenure system, farming system, as well as the way of people thinking, indeed, had made the local situation far more complicated than before. In the other words, the single management arrangement, such as state control or local control, is insufficient to ensure the sustainable use of resource. Instead, the several types of forest management with multi-stakeholders involvement are necessary.

Under this local context, a joint management is practiced. As I mentioned above, in the case of resin or other resources in Nuozadu Nature Reserve, the joint management practiced has been implemented informally for a long period. At the beginning, its aim was to decentralize the usufruct to local community to extract various resources for local economic development. However, a major decision was made by officials. Later, with Sino-Dutch project of FCCD (forest conservation and community development), participatory approach had been introduced.

Subsequently, there are village joint management committees inside and surround the nature reserve established. The participatory approach provides the more space to multiple-level stakeholders discussion. This joint management institution established some regulations applied to bamboo shoots as well as other NTFP harvest and management. Moreover, there are also regulations related to agriculture activities such as farming, grazing, domestication and raising livestock and so forth. All of those were made based upon the participation of multi-stakeholders discussion. Notably, Prefecture Forestry Bureau take the roles for generating general understanding of joint management arrangement among the officials. The conservation stations are responsible for formalizing specific

institution for specific local community in cooperation with villagers. This practice has resulted in the existence of pluralism of local institutions.

However, mostly local institutions cope with issues of ecological condition in response to commodity chain and establishment of nature reserve, as I had discussed throughout the thesis. There are also various institutional responses to commodity chain relevant to economic or market issue I have not mentioned yet, but it is significant to examine here. Therefore, I would like to divide into two kinds of response to commodity chain with regard to resin and bamboo shoots respectively.

A. Resin

Prefecture government responds to commodity chain is a long process, and continued. The first issue as mentioned is to respond to privatization. The long negotiation between factories and government, and long periods embedded in “socialist market economy” leads government to realize that there are many disadvantages of state enterprise in market competition. The “government failures” in guiding marketing of resin increase public attention. The elimination of transportation permission of resin which introduce the private sectors to take part in resin market promote their understanding of advantages of private sectors. However, since the initiate investment of resin factories is offered by government on the one hand, government would like to avoid to “market failures” on the other, they are unlikely to fully privatize the enterprise. Instead, they are pleased to establish multi-actors’ sharing stock joint venture enterprise, by attracting private investment, which aim to introduce the new institutional arrangement to factories’ further development, and promote incentives for factory staff. Government also abolished the regulations that state must share 51% stock in the enterprise⁷. Rather, the shares must be determined by the investment of private sectors and negotiation. Those institutional changes provide more opportunities for private, enterprise as well as staff. Besides, they also allow the local villagers to share an investment. The villagers’ pine trees

⁷ In the early period of market open, according to the investment law, the maximum of stock share for private sector investment is 49% in state enterprise, which aim to maintain decision

can be counted as their shares. Through this, a joint venture enterprise can be arranged with plural management arrangement. This is contributed to benefit-sharing, cost-sharing and risk-sharing in the factories. However, government also has role to make any adjustment and support for its further development.

Second, government is also reducing their role in price determination. Now, as discussed above, prefecture forestry agency do not fixed the collection price, rather than make a minimum price for collection. One official said: “fix price this the key characteristic of ‘central planning economy’, therefore, it should be abandon in market economy, according to economics theories”. However, He further explained that we should take local context into consideration. Since resin is so important for local villages’ development, particularly after establishment of nature reserve, we should give some advantage to local villagers to build a good foundation for their further development and responses to market. Hence, government role in price determination is rather unnecessary, but should be reduced gradually. The adjustment of local institution also should be gradual.

In sum, in response to commodity chain, the government have their own self-adjustment strategy. The self-adjustment is taking place by better understanding of dynamic market and environment.

B. Bamboo Shoot

“Good management of resource can be achieved by a good management of market”, one Conservation Station⁸ official said. It is true. Previous institutional arrangement of resource management has overemphasized on sustainable ecosystem. Subsequently, local resource tenure issues, indigenous knowledge issues are major focus without doing any things in market. Thus, many literatures tend to treat market as “malignant market” (see Watts, 2000). In fact, the market also should

making power in state side.

⁸ Conservation Station is the element government agency for nature reserve management under

be managed, and it may subsequently convert “malignant market” into “gilded governed market” to promote development of both economy and ecology for different groups at different levels.

Local forestry agency, the Conservation Station, is carrying out many activities to manage market in order to ensure ecology sustainability. A tax system is one of a mechanism to redistribute benefits to ecology improvement. According to preliminary statistics, 80% of tax revenue is used for the ecological development, such as plantation, governing water, recovery forest, recovery grass, offering food for wildlife, other operation cost and so forth. Clearly, the taxation is considered as a common institution in many countries and region to redistribute benefit, promote ecology development, and enhance local management.

In Nuozadu Nature Reserve, the officials also monitor to check market. Reduction of consumption of scarce forest products (e.g. wildlife, special mushroom) is a key task in monitoring market. In case of bamboo shoots, as mentioned above, joint management committee had set up the rule to guide timing the harvest period. To enforce and implement this rule, several monitoring systems are required. In the villages, committee members take a responsibility to monitor harvest activities. The officials monitor the market. As one joint management committee member in Huibinhe said, at the beginning, committee members worked very hard in patrolling and training villagers. Consequently, there are no harvest activities are conducted in Huibinhe community out harvesting period. But, they find out that there are some outsiders taking part into harvesting bamboo shoot in their zone out harvesting period. Even though with the help of officials, negotiated with other communities and reinforce their patrol in forest, this kind of case also occurred occasionally at night.

Therefore, officials realize they should do something in the market. On the one hand, they train the merchants to understand their regulation in timing harvest

period. On the other hand, they also reinforce their monitoring system by patrolling bamboo shoot selling at market after the period of harvest. By doing so, there are no marketing activities are conducted after the harvest period, which subsequently contributed to no commercial extraction of bamboo shoots after harvest period. By doing so, not only the regulations of timing harvest but also the rule of zoning harvest are well enforced and implemented. By doing so, local ecological condition has been evidently improved.

In short, in term of economic aspect, the government responses to commodity chain take various forms, which encompass re-adjustment of price system, option of privatization and reinforcement in monitoring marketing activities. Those institutional changes manifest a dynamics of self-adjustment to promote both ecology and economic development.

Summary

In this chapter I have examined various local institutional responses to commodity chain. First, social ties in responses commodity chain were examined. Various types of social ties were explored, which are composed of patron-client relations, kinship, friendship relations, and economic partnership relations. Each of those ties enable people to involve in NTFP commodity chain, then access to benefit from commercial NTFP. People's action to tie with each other is a form of benefit sharing, but it is different to identify whether this benefit sharing is fair or unfair from the outsiders viewpoint. But, it is clear that negotiation process attend to challenge the social ties in term of power relation, which aim to reallocate power. Besides, by tying with each other, local traders' power was generated and strengthened for negotiation, which lead to dynamic aspect of social ties.

Second, social and geographic identification in commodity chain was explored. As a local institutional responses, local people tend to identify people as Simaoese based on geographic territory. This identification process is carried out in responses to outsiders monopolizing local market. Therefore, in the process of identification,

negotiation activities are associated. It aims to negotiate for market access at the local level. By this negotiation activity, local traders gain priority of local market access from government, re-gain local control over local market. The social and geographic identification, in this case, thus, is the process of negotiation. In turn, this identification process is also dialectical, in the sense of outsiders also acting to challenge local traders' priority of access, and simultaneously local trader striving to maintain their access. It provides a dynamics process of how social and geographic identity is constructed by identification process. Clearly, this institutional response enhanced local access and control over local market.

Third, individuals' economic performance was examined in the context of shifting between price-based and non-price-based mechanism. Notably, under macro circumstances of non-price-based mechanisms shifting to price-based mechanisms associated with transformation from collectivization to decollectivization, local practice do not follow those changes of mechanisms. Rather, it is situated and embedded into local context, which locally-instituted and culturally-specific adaptive system. It can take the form of morality, politics and rationality, which vary from time to time, and might depend on species they traded, person they do business with. In the process of shifting between price-based and non-price-based mechanisms, several actors' negotiation activities also promote the force of a shifting mechanism.

At final, joint management institution was examined by make insight into practice of local community and local government in response to commodity chain. For local community, they had their adaptive strategy. An adaptation or responses to commodity chain in establishing a joint management is taking placed with several assistance of externality. In bamboo trade, the externality plays a key role in formalization of joint management institutions. Besides, with respect to variety of products, there are various forms of institutions set up and formalization process. For resin, although decision making power of joint management are mainly controlled by government, joint management practice has created the usufruct to

local villagers. Moreover, a traditional tenure practice of zoning activities is recognized and restored. In comparison, Concerning bamboo shoots and other NTFP, the institution making are conducted by a participatory approach, which provide more space to local villagers in their resource management.

For local government agency's responses, besides to establishment of joint management, it is the agency's duty to adjust or change local institutions to fit changing economic and ecological conditions of Simao. Therefore, in addition to set rule and regulations for ecology management, government attempts to manage market for achieving the development of both economy and ecology. Notably, their self-adjustment also illustrated dynamic aspect of institutional responses.

Institutional dynamics can be studied from actual process of adaptation, negotiation, adjustment, and self-adjustment. Particularly, maintenance of institutions also manifest the dynamic aspect of institutions. Therefore, there are some methodological gaps to analyze institutional dynamics. The concepts of "rule" and "rule-in-use" are insufficient to understand the ongoing process at local level. The maintenance, adaptation, negotiation, adjustment, and self-adjustment of institution is the process to maintain, negotiate, adjust and self-adjust the NTFP commodity chain.